



ADAPTATION FUND

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Adaptation Fund Board
Project and Programme Review Committee
Thirty-eighth Meeting
Bonn, Germany, 19-23 October 2026

PROPOSAL FOR PHILIPPINES



ADAPTATION FUND

ADAPTATION FUND BOARD SECRETARIAT
TECHNICAL REVIEW OF PROJECT PROPOSAL FOR
"ADVANCING ADAPTATION FOR AGRO-INDUSTRY AND POST-HARVEST
TRANSFORMATION IN MINDANAO'S FRUITS AND VEGETABLES VALUE CHAINS"

Project Title	Advancing adaptation for agro-industry and post-harvest transformation in Mindanao's fruits and vegetables value chains
Project ID	AF00000591
Category	Regular size project (over \$1 million)
Type	Single country project
Stage	Fully-developed project
Country	Philippines
Implementing Entity	UNIDO
Financing Requested	USD 15,000,000.00
Reviewer	Una May Gordon
Co-reviewer(s)	Francisca Saavedra
IE Contact Person	Fatou Haidara,Ganna Onysko,Mark Grigoryan,Meryem Sghir,Natale Guarnaccia,Nihad Touil,Olga Gordiievska,Rui Lopes de Aguiar Junior

Secretariat's Overall Comment

The project "Advancing adaptation for agro-industry and post-harvest transformation in Mindanao's fruits and vegetables value chains" aims at increasing climate resilience of the most vulnerable fruits and vegetables value-chains (FVVCs) actors in Mindanao, securing and promoting inclusive and sustainable socio-economic development gains in the agro-industry sector.

The initial technical review raises several issues, such as, as discussed in the number of Clarification Requests (CRs) and Corrective Action Request (CAR) raised in the review.

Country Eligibility

Is the country party to the Kyoto Protocol or the Paris Agreement?

Response: Yes

Secretariat: The Philippines ratified the Paris Agreement on 23 March 2017 and the Kyoto Protocol on 20 November 2003

Is the country a developing country particularly vulnerable to the adverse effects of climate change?

Response: Yes

Secretariat: The Philippines faces some of the highest disaster risk levels in the world, and these are projected to intensify as the climate changes. The country is especially exposed to tropical cyclones, flooding, and landslides. Sea-level rise is happening at an above-average rate for some parts of the Philippines. The agricultural sector is especially vulnerable to climate change impacts (Source: Climate Risk Country Profile: Philippines (2021): The World Bank Group and the Asian Development Bank)

Project Eligibility

Has the designated government authority for the Adaptation Fund endorsed the project/programme?

Response: Yes

Secretariat: Yes.

Juan Miguel T Cuna, Secretary, Department of Environment and Natural Resources
Signed on July 28, 2026

CAR1: Please mark the box on the cover page of the proposal indicating that the LEO is signed

Does the length of the proposal amount to no more than One hundred (100) pages for the fully-developed project document, and one hundred (100) pages for its annexes?

Response: Not Cleared

Secretariat: No.

The proposal is 101 pages long, not counting the first page.

CAR2: Please ensure the proposal is no more than 100 pages.

CR1: Please number paragraphs

CR2: The project background information provides relevant information for the project; however, a few corrections are needed.

1. Please back up all statements with references. For example, page 6, third paragraph has no reference; the same applies to the second paragraph on page 7 and section 4 in page 10. Please check the whole proposal.
2. Please ensure that all acronyms are defined when first mentioned in the text. For example, the acronym LGU (second paragraph, page 7) is not defined, as are CIAT-DA-AMIA on page 8 and SOCCSKSARGEN on page 6.
3. The last paragraph on page 5 states that GDP might be reduced by as much as 13.6% by 2040. The next sentence mentions that 17 million Filipinos live below the poverty threshold. Please clarify the percentage that 17 million represent.

CR3: The focus on Mindanao is not clear

1. Please clarify "highly climate-sensitive agricultural production system". It is mentioned in the last paragraph of page 6, but no explanation or reference is given to understand what this might be. Since one of the project's focuses is the Mindanao region, it would be important to provide more detail here and perhaps create a subsection about Mindanao. The information about Mindanao gets diluted in a sea of stats about other regions.
2. Starting on page 8, section 3, there is an attempt to explain why the project focuses on Mindanao, but the logic is not clear. The analysis of candidate geographies is also unclear; please include a map and a brief explanation of the municipal project. Are these municipal projects in the Mindanao region?

CAR3: Please edit the proposal. There are a few grammatical errors

CAR4: The table on page 10

1. is referred to as Figure 6. Please correct.
2. The table does not show the data that the text refers to,

Does the project / programme support concrete adaptation actions to assist the country in addressing adaptive capacity to the adverse effects of climate change and build in climate resilience?

Response: Not Cleared

Secretariat: Yes,

Overall, the project supports Mindanao's fruit and vegetable climate adaptation and aligns with AF strategic Objectives (pg. 18, 28, 40); however, it needs clarification and corrections.

CAR5: The proposal has a ToR (Fig 7, pg. 14), however, some corrections are necessary:

1. Please clarify what each of the boxes represents. You may want to add labels on the left for assumptions, barriers, risks, project outcomes, project objectives, problems, etc.
2. An outcome is a result. Please phrase the outcome as such (e.g., farmers adopt xx practice)
3. Output. What are the outputs or tangible deliverables produced by the proposed project? The figure does not make this clear
4. The figure does not include the main problem to be addressed. Please include the main problem to be addressed and the project's overall objective as the first two blocks. After that, include the outcomes, outputs, barriers, assumptions, and risks.

CAR6: The table "Project Component and Financing" (pg. 15) needs to be corrected:

1. Please clarify how the project will contribute to each of the outcomes
2. Please state the outcome as a result. An outcome is not what you will do, but the result you expect. e.g, Farmers adopt climate-resilient practices that strengthen production systems and the value chain.
3. Please ensure that outputs are concrete, e.g., Farmer groups and cooperatives provided with organizational, managerial, and financial capacity-building support. It is not enough to say that arrangements will be enabled through the lead to adapt program (table Project Components and Financing, pg. 10)

CR4: Tables summarize project component stats (pg.18-48)

1. Please provide table # and label
2. Please change the color of the first row, black letter against dark background does not allow reading.

Does the project / programme provide economic, social and environmental benefits, particularly to vulnerable communities, including gender considerations, while avoiding or mitigating negative impacts, in compliance with the Environmental and Social Policy and Gender Policy of the Fund?

Response: Pending

Secretariat: Yes

The proposal outlines the project's economic, social, and environmental benefits (pg. 51-52), the expected direct and indirect beneficiaries by project site (tables on pg. 18, 28, and 40), and is compliant with Gender Policy requirements (Annex D has the gender analysis, and Annex E has the results of the session to validate gender analysis); however, it needs to clarify more details.

CR5: Please provide a quantifiable estimate of benefits when possible.

CAR7: The proposal states that the project will benefit women, IP, and other vulnerable groups; however, there is no specific information

- number of beneficiaries by gender, age, IP
- estimated quantifiable economic, social, and environmental benefits

Suggest creating a table with this information.

CR6: There is information in Annex D about possible negative effects of the project on women (pg. 11). However, there is no clear information in the proposal on possible negative effects of the project, in general or onto specific vulnerable groups, including IP. Please clarify possible specific maladaptations and specific maladaptation to vulnerable groups

CR7: The project will be implemented in area with IP. Please make sure that the proposal clearly outlines the benefits for IP (see CAR7)

Is the project / programme cost effective?

Response: Pending

Secretariat: Yes.

The proposal explains alternative options, making clear the cost-effectiveness of the proposed plan (Table 3, pg. 53). However, some clarifications are needed.

CR8: Cost-effectiveness needs to be demonstrated from a sustainability point of view. The explanation is currently vague. e.g. "The fourth test is sustainability and lifecycle efficiency. ADAPT Mindanao is cost-effective because its principal investments are designed to generate repeated adaptation services beyond the period of grant expenditure." Please clarify how sustainability will be attained; be specific.

Is the project / programme consistent with national or sub-national sustainable development strategies, national or sub-national development plans, poverty reduction strategies, national communications and adaptation programs of action and other relevant instruments?

Response: Pending

Secretariat: Unsure

The proposal explains alignment with NAP (pg 54-55) and other national plans (pg. 55-56). No references are made to NDP (<https://unfccc.int/NDCREG>) or NSDS.

CR9: NAP 2023-2025 is referred to on pg. 54 and in other pages in the proposal. Please include a reference or hyperlink to the plan.

CAR8: Please explain how the proposal is consistent with NDP and NSDS standards.

Does the project / programme meet the relevant national technical standards, where applicable, in compliance with the Environmental and Social Policy of the Fund?

Response: Pending

Secretariat: Yes,

The proposal includes a complete table (Table 4, pg 56) listing national laws, regulations, and standards. The table also provides compliance measures.

Is there duplication of project / programme with other funding sources?

Response: Pending

Secretariat: The proposal provides a very complete table of likely duplication and synergies with other national funding programs (pg 60-62)

CR10: Please ensure the table on page 60 has a number and a label.

CR11: The assessment of synergies and duplication would be easier to read if the table were to break down these two components in the same box, and if the text could be streamlined. The box text could be summarized.

No duplication: explanation

Synergies: explanation

Note for co-reviewer: I looked for other funding in the Philippines, and I think the table is exhaustive.

Maybe they could consider:

Integrated Natural Resources and Environment Management Project

ADB Project Number: 41220-013, GEF/closed, but focuses on northern areas of the Philippines.

Multi-Hazard Impact-Based Forecasting and Early Warning System for the Philippines, GCF/ongoing ,

<https://www.greenclimate.fund/portfolio/projects/sap010>

Potential synergies. N

Does the project / programme have a learning and knowledge management component to capture and feedback lessons?

Response: Pending

Secretariat: Yes

The learning and knowledge component is embedded within each component as a "Learn & Experience" output (output 1.1., 2.1., and 3.1) (pages 15-16).

CAR9: There is no consistency between the table on pages 15- 16, the explanation on pg. 18 (second and third paragraph), and section G on page 63. Pages 15, 16, and 18 state that learning and knowledge will be achieved through the Learn and Experience outputs, whereas section G says that it will be achieved through "Scale" outputs. Please make corrections and clarify

Has a consultative process taken place, and has it involved all key stakeholders, and vulnerable groups, including gender considerations in compliance with the Environmental and Social Policy and Gender Policy of the Fund?

Response: Pending

Secretariat: Yes

Consultative processes took place.

Annex B has the gender assessment.

Annex D has the final and comprehensive stakeholder consultation report (Stakeholders: City Agriculture Office, farm cooperatives, agriculture technicians, foundations, fisherfolk, farmers, municipal mayors, producer cooperatives, universities, agriculture cooperative, farmer federations, FAO, Need, Development Bank of the Philippines, UNIDO, and others)

The consultation is gender-inclusive: Meetings with farmers, fisherfolk, and cooperatives included women's focus groups or women-only sessions to discuss women's concerns. The report also includes names and the number of people attending the consultation meetings. However...

CAR10: Women's concerns discussed and heard. It is not clear what these concerns are or how the project will address them. Example, this sentence is repeated multiple times: "A women-only session provided a conducive space for discussion on women concerns. During the discussion, the farmers also had the opportunities to share what they think could be adaptive solutions the problems that they encounter. These data will serve as the foundation and basis of the project design."

Suggest creating a table that summarizes women's and other stakeholder's groups, concerns, and how concerns will be addressed.

CAR11: There is no clear indication that IP were consulted using culturally appropriate approaches and with respect for Indigenous Knowledge Systems and practices (e.g. Talaandig Farmers Agriculture Cooperative (TFAC)), especially given the resistance of the Tribal Council Elder to participate and the plan to implement "science-based" interventions (pg. 11, Annex E). Page 63, section H states that IP validated the design; however, the information in Annex E does not clearly support this.

As with women's concerns, it is unclear what the IP concerns are and how the proposal will address them.

CAR12: Missing procedure to hear stakeholders' feedback/concerns during implementation, especially vulnerable groups. Please address or clarify.

Is the requested financing justified on the basis of full cost of adaptation reasoning?

Response: Pending

Secretariat: Unsure

See Part II, section "I", pg. 65-66, which justifies the proposal's cost and the project's relevance. The project can achieve its goal with AF resources alone.

Is the project / program aligned with AF's results framework?

Response: Pending

Secretariat: Yes

Section F, pages 93-96, reports the AF results framework.

The project objectives are consistent with the AF outcomes and indicators. The project outcomes are consistent with AF outputs and indicators (2019 AF results framework)

CAR13: Not all tables have a number and label. Please check the proposal and number and label all tables.

CR12: Section E, pages 83-92. The table is not clear.

1. Please provide table number and brief explanation
2. Please clarify the column labels and what is reported. For example, it is not clear what is meant by baseline, MTR, and TE
3. Not clear why the second column (Indicators) includes the note Denominator in some of the cells

Has the sustainability of the project/programme outcomes been taken into account when designing the project?

Response: Pending

Secretariat: Not cleared

Section J (pg.66-67) addresses the project's sustainability; however, it does not clearly explain how the program

will be sustained after funding ends or how it might be replicated or scaled up.

CR13: Please explain how sustainability will be achieved.

1. What are the specific arrangements? For example, the proposal says that outcomes are anchored in existing institutions (component 1), but how would these institutions respond after the funding ends?
2. How will sustainability be addressed from an economic, social, environmental, institutional, and financial point of view? I suggest addressing these aspects of sustainability in separate paragraphs.
3. The proposal has "learn and experience " and "scale" outputs. How do these outputs lead to sustainability?

Does the project / programme provide an overview of environmental and social impacts / risks identified, in compliance with the Environmental and Social Policy and Gender Policy of the Fund?

Response: Pending

Secretariat: Yes,

Section K (pp. 67- 70) provides an overview of potential impacts and risks against the 15 ESP principles. The project was evaluated as Category B for risks, and each principle has a risk category (low/medium/high), potential risks, and mitigation measures. The project includes a gender Assessment and Gender Action Plan in Annex D.

CR14: However, to make sure this section is clear and complete, I suggest:

1. Separate risks from mitigation measures in each cell for clarity.
2. Ensure the mitigation measures are clear. Identify what measures will be taken to avoid, minimize, manage, or mitigate the impacts of the project. For example, for marginalized and vulnerable groups, mitigation measures are not clear "The ESMP and GAP account and envisage dedicated screening and implementation mechanisms to manage those risks."
3. Ensure each cell include mitigations. For example, the section on gender equality and women's empowerment does not have a mitigation section.

Resource Availability

Is the requested project / programme funding within the cap of the country?

Response: Not Cleared

Secretariat: Unsure

Is the Implementing Entity Management Fee at or below 8.5 per cent of the total project/programme budget before the fee?

Response: Cleared

Secretariat: The implementation fee is at 8.5%.

Are the Project/Programme Execution Costs at or below 9.5 per cent of the total project/programme budget (including the fee)?

Response: Not Cleared

Secretariat: Yes,

The execution fee is 4.1%, which is below 9.5%. However, it is not clear how this funding is budgeted among the EEs. The proposal mentions 2, and the third one is to be determined.

CRxx: Please provide the execution cost for each EE, including UNIDO. It would be helpful if IE could upload the IE-EE fee calculator file.

Eligibility of IE

Is the project/programme submitted through an eligible Implementing Entity that has been accredited by the Board?

Response: Cleared

Secretariat: UNIDO, Accreditation Expiration Date: 30 October 2027

Implementation Arrangements

Is there adequate arrangement for project / programme management, in compliance with the Gender Policy of the Fund?

Response: Pending

Secretariat: Part III, section A (pp. 71-76) explains the implementation arrangements, describes stakeholder roles/responsibilities, and includes a chart with the implementation overview (Fig. 5, p. 76) that shows reporting, cash flow, advisory flows, and adaptation benefits. However, some clarifications are needed:

CRXX: Page 73, first paragraph mentions the PMU; it might have been defined earlier, but given the length of the proposal, suggest defining acronyms again for easier reading (similar to CSO, PWD, and others). PMU is not in the list of acronyms on pages 3- 4.

CARxx: Figure 5 (pg 76) is helpful; however, some corrections/clarifications are needed:

1. Please include all stakeholders. For example, the figure is missing the project management unit.
2. Lines for cash flow and adaptation benefit are not clear; both are green and non-continuous. Strategic

advisory also confused with cash flow. Please address.

3. Please clarify the acronym ABGM

4. Reporting lines are unlikely incomplete. Should grant beneficiaries report to the execution agency? Should EE report to IE?

Are there measures for financial and project/programme risk management?

Response: Pending

Secretariat: Part III, sections B and C (pp. 77-81) explain the risks and a plan to manage/mitigate them. This section assesses the financial/project and environmental/social risks, their levels, and how they will be managed (the monitoring plan is explained in section D, pp. 81-82). However, sections B and C require some clarification:

CRXX: Table 6 (pg 77),

1. Column labels are not clear. What are I and L? Please define.
2. Color coding for M-Moderate and H-High are not distinguishable from each other
3. Table divided by context, innovation, and execution. This division is not clear
4. Please clarify the financial risk more clearly. The information provided in table 6 does not seem to address financial risk directly.

CRXX: Section Environmental and Social risk management

1. Please add a table number and label to the table in page 79
2. Redefine acronyms in the right place. e.g., GAP not defined in column one; it is defined in column 3
3. Each cell in the table is overloaded with information. Please reorganize table. e.g., finding A, compliance measure for A, and who is responsible.

(Note to co-reviewer, I am not sure how this section is supposed to look. Should it be a table with detailed information on the different categories of risks (i.e., financial, environmental, social, institutional...), their level, and how they will be managed?)

Are there measures in place for the management of for environmental and social risks, in line with the Environmental and Social Policy and Gender Policy of the Fund?

Response: Pending

Secretariat:

Unsure

The table on page 79 addresses the environmental and social risks identified in Section II, however

CARXX: Missing Environmental and Social Management Plan (ESMP) to manage the project's associated risks/impacts. The ESMP should indicate allocated roles and responsibilities for its implementation, include opportunities for consultation and adaptive management, budget provisions for its implementation, IE arrangements to supervise executing entities implementing the ESMP, M&E for ESP compliance, and an accessible grievance mechanism.

Is a budget on the Implementing Entity Management Fee use included?

Response: Pending

Secretariat: No,
Part III, section G, Table (pg 97-98). The table includes detailed information on how funds are budgeted per component and year however, it doesn't make clear the budget for the IE management fee.

CARxx: Please assign a number and label explaining what information the table shows

CARXX: Please ensure that the budget includes a breakdown of the Implementing Entity Management Fee

Is an explanation and a breakdown of the execution costs included?

Response: Pending

Secretariat: Yes
Section III. Table 10 (pg 98) has the cost breakdown by items of the execution cost, and Table 11 (pg 99) has the execution cost by agency

Is a detailed budget including budget notes included?

Response: Pending

Secretariat: Unsure

CARxx: Missing detailed budget with budget notes indicating the break-down of costs at the activity level.

CARXX: Table with detailed budget in page 97 does not specify the budget for gender-responsive implementation

Are arrangements for monitoring and evaluation clearly defined, including budgeted M&E plans and sex-disaggregated data, targets and indicators, in compliance with the Gender Policy of the Fund?

Response: Pending

Secretariat: Yes

The plan includes a clear monitoring and evaluation plan (section C, pp. 81-82), with budgeted M&E (Table 8, pg 82), including mid-term and final evaluations and monitoring of GAP and ESMP. Monitoring establishes timelines and milestones. The table includes costs for monitoring activities.

Does the M&E Framework include a break-down of how implementing entity IE fees will be utilized in the supervision of the M&E function?

Response: Pending

Secretariat: Yes

Table 8 (page 82) includes a breakdown of the IE fee for monitoring activities

Does the project/programme's results framework align with the AF's results framework? Does it include at least one core outcome indicator from the Fund's results framework?

Response: Pending

Secretariat: Yes

Part II, section F, table on pages 93- 96, explains the alignment with the AF result framework. The project includes two core output indicators from the AF result framework

CARXX: Please correct the table's fifth column cells from "AF output" to "AF outcome"

CARXX: The result framework must include the core impact indicator "Number of beneficiaries including estimations for direct and indirect beneficiaries"

Is a disbursement schedule with time-bound milestones included?

Response: Pending

Secretariat: Yes,

Part III, section H, table on page 101, has the disbursement schedule. The budget adds up.



ADAPTATION FUND

FULLY DEVELOPED PROPOSAL FOR SINGLE COUNTRY

PART I: PROJECT/PROGRAMME INFORMATION

Title of Project/Programme:

Advancing adaptation for agro-industry and post-harvest transformation in Mindanao's fruits and vegetables value chains

Country: The Philippines

Thematic Focal Area: Agriculture / Food security

Type of Implementing Entity: Multilateral Implementing Entity

Implementing Entity: UNIDO

Executing Entities: UNIDO / MinDA / One additional EE to be confirmed

Amount of Financing Requested: USD 15,000,000

Letter of Endorsement (LOE) signed: Yes ☐ No ☐

NOTE: The LOE should be signed by the Designated Authority (DA). The signatory DA must be on file with the Adaptation Fund. To find the DA currently on file check this page: <https://www.adaptation-fund.org/apply-funding/designated-authorities>

Stage of Submission:

☒ This proposal has been submitted before including at a different stage a concept stage.

☐ This is the first submission ever of the proposal at any stage

In case of a resubmission, please indicate the last submission date: Click or tap to enter a date.

Please note that fully-developed proposal documents should not exceed 100 pages for the main document, 1 and 100 pages for the annexes.

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Figure 8 – Project Management Unit (PMU) overview

List of Acronyms

AB	Adaptation Barrier(s)	GISAC	Gender, Inclusion and Social Safeguards Advisory Committee
AO	Administrative Order	GPB	GAD Plan and Budget
ABGM	Adaptation Benefits Grant Mechanism	GRDP	Gross Regional Domestic Product
ACBP	ADAPT Centre Business Plan	GRM	Grievance Redress Mechanism
ACEF	Agricultural Competitiveness Enhancement Fund	IB	Indirect Beneficiaries
AFF	Agriculture, Forestry and Fishing	ICC	Indigenous Cultural Community
AFFS	Agriculture, Fisheries and Food Security	IP	Indigenous Peoples
AFCIA	Adaptation Fund Climate Innovation Accelerator	IPCC	Intergovernmental Panel on Climate Change
AFO	Adaptation Fund Outcome	IPM	Integrated Pest Management
AIP	Annual Investment Program	IPRA	Indigenous Peoples' Rights Act
AMIA	Adaptation and Mitigation Initiative in Agriculture	IRR	Implementing Rules and Regulations
APA	Adapting Philippine Agriculture to Climate Change	KII	Key Informant Interview
AR6	Sixth Assessment Report	LBP	LandBank of the Philippines
ASIF	Adaptation SMEs Innovation Facility	LCCAP	Local Climate Change Action Plan
BP	Batas Pambansa	eLCCAP	Enhanced Local Climate Change Action Plan
BARMM	Bangsamoro Autonomous Region in Muslim Mindanao	LDIP	Local Development Investment Program
BDR	Baseline Data Report	LEAD	Local Empowerment for Adaptation Decision Making
BFA	BFA Global	LGA	Local Government Academy
BRL	Business Readiness Level	LGU	Local Government Unit
CADT	Certificate of Ancestral Domain Title	LMP	Labor Management Procedures
CCC	Climate Change Commission	LOE	Letter of Endorsement
CDA	Cooperative Development Authority	MAO	Municipal Agriculture Office
CDP	Comprehensive Development Plan	MC	Memorandum Circular
CIAT	International Center for Tropical Agriculture	MDRRO	Municipal Disaster Risk Reduction and Management Office
CIS	Climate Information Services	MENRO	Municipal Environment and Natural Resources Office
CLUP	Comprehensive Land Use Plan	MIADP	Mindanao Inclusive Agriculture Development Project
CNC	Certificate of Non-Coverage	MinDA	Mindanao Development Authority
CRA	Climate-Resilient Agriculture	MO	Memorandum Order
CRAO	Climate Resilient Agriculture Office	MPDO	Municipal Planning and Development Office
CRVA	Climate Risk and Vulnerability Assessment	MRL	Maximum Residue Limit
CSO/CBO	Civil Society Organization / Community-Based Organization	MSME	Micro, Small and Medium Enterprise
CSC	Civil Service Commission	MTE	Mid-Term Evaluation
DA	Department of Agriculture	MTS	Mid-Term Survey
DAO	DENR Administrative Order	NAP	National Adaptation Plan
DA-BPI	Department of Agriculture – Bureau of Plant Industry	NCCA	National Commission for Culture and the Arts
DA-HVCDP	Department of Agriculture – High Value Crops Development Program	NCIP	National Commission on Indigenous Peoples
DB	Direct Beneficiaries	NDRRMC	National Disaster Risk Reduction and Management Council
DC	Department Circular	NEDA	National Economic and Development Authority
DBP	Development Bank of the Philippines	O&M	Operations and Maintenance
DENR	Department of Environment and Natural Resources	 OCD	Office of Civil Defense
DILG	Department of the Interior and Local Government	OHS	Occupational Health and Safety
DILG/LA	Department of the Interior and Local Government / Local Government Academy	OS	Operational Safeguards
DMC	DENR Memorandum Circular	PAGASA	Philippine Atmospheric, Geophysical and Astronomical Services Administration
DMO	Department Memorandum Order	PCAARR D	Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development
DOE	Department of Energy	PCS	Project Completion Survey
DOH	Department of Health	PCR	Project Completion Report
DOLE	Department of Labor and Employment	PD	Presidential Decree
DOST	Department of Science and Technology	PDIP	Provincial Development Investment Program
DOST-PAGASA	Department of Science and Technology – Philippine Atmospheric, Geophysical and Astronomical Services Administration	PDPFP	Provincial Development and Physical Framework Plan
DOST-PCAARR D	Department of Science and Technology – Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development	PEISS	Philippine Environmental Impact Statement System

DRRM	Disaster Risk Reduction and Management	PESO	Public Employment Service Office
DSWD	Department of Social Welfare and Development	PhilGAP	Philippine Good Agricultural Practices
DTI	Department of Trade and Industry	PPA	Programs, Projects and Activities
E&S	Environmental and Social	PPE	Personal Protective Equipment
ECC	Environmental Compliance Certificate	PPR	Project Performance Report
EE	Executing Entity	PRDP	Philippine Rural Development Program
ELA	Executive-Legislative Agenda	PROCES S	Post-harvest Climate Resilient Centres for Shared Services
EMB	Environmental Management Bureau	PS	Project Site
ESIA	Environmental and Social Impact Assessment	PSF	People's Survival Fund
ESMF	Environmental and Social Management Framework	PWD	Persons with Disabilities
ESMP	Environmental and Social Management Plan	RA	Republic Act
ESP	Environmental and Social Policy	RDC	Regional Development Council
ESPP	Environmental and Social Policy Principles	RDP	Regional Development Plan
ESSPP	Environmental and Social Safeguards Policies and Procedures	RDIP	Regional Development Investment Program
FAO	Food and Agriculture Organization of the United Nations	SALT	Sloping Agricultural Land Technology
FCA	Farmers' Cooperatives and Associations	SOCCSK SARGEN	South Cotabato, Cotabato, Sultan Kudarat, Sarangani and General Santos
FE	Final Evaluation	SSP	Shared Socioeconomic Pathway
FGD	Focus Group Discussion	SUC	State University and Colleges
FPIC	Free, Prior and Informed Consent	TEAM	Transformational Enterprise Support for the Agribusiness Value-Chains of Mindanao
FVVC	Fruits and Vegetables Value Chain	TE	Terminal Evaluation
FVVC-TWG	Fruits and Vegetables Value Chain Technical Working Group	ToC	Theory of Change
GAD	Gender and Development	TRL	Technology Readiness Level
GAP	Gender Action Plan	TSAC	Technical and Scientific Advisory Committee
GCF	Green Climate Fund	UAE	United Arab Emirates
GDP	Gross Domestic Product	UNIDO	United Nations Industrial Development Organization
GEF	Global Environment Facility	USP	Unidentified Sub-Project
GGA	Global Goal on Adaptation	WGI	Working Group I
GHG	Greenhouse Gas	WGII	Working Group II
GIS	Geographic Information System		

Project/Programme Background and Context

1. Climate and development context

Climate change is already a material development constraint for the Philippines and for climate-sensitive productive sectors. At the regional scale, the IPCC AR6 identifies a strengthening climate signal across Asia that is directly relevant to the Philippines: in the long term, South and Southeast Asian monsoon precipitation is projected to increase, heavy precipitation is expected to intensify across parts of Asia, and Southeast Asia is expected to face fewer but more extreme tropical cyclones. The same assessment also concludes that climate-related risks to agriculture and food security in Asia will progressively escalate as global warming reaches 1.5°C and above, and that, at regional scale, projected negative impacts on agricultural production outweigh expected benefits¹.

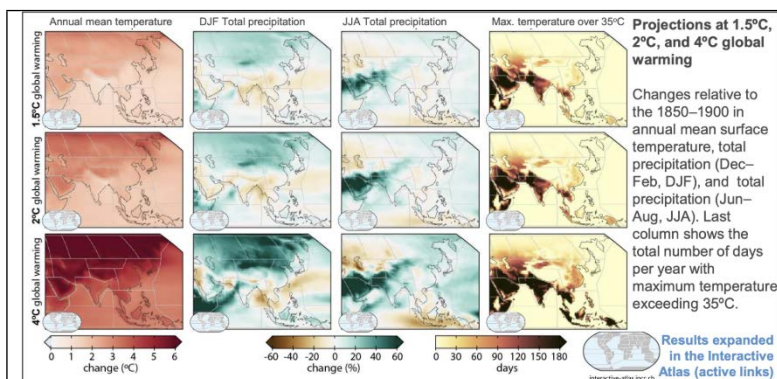


Figure 1 – IPCC AR6 WGI - Regional fact sheet – Asia [Projections at 1.5°C, 2°C, and 4°C global warming]

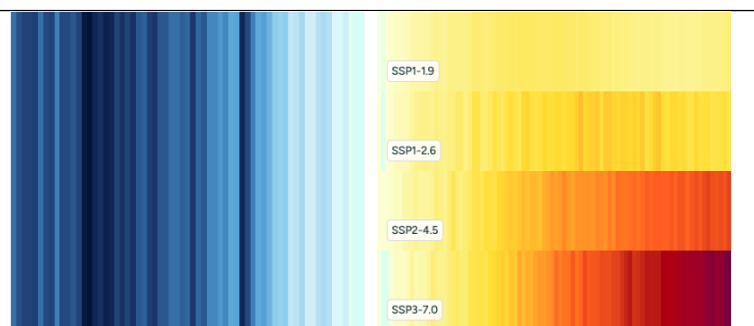


Figure 2 – Country Historical and Projected Average Mean Surface Air Temperature³ (Climate Change Knowledge Portal WB)

The Philippines is highly exposed and vulnerable to the adverse effects of climate change, with implications for economic growth, poverty reduction, infrastructure, and food security, with particularly climate-sensitive sectors. Climate change may reduce the productivity of labour, land and capital, affect resource endowments and production systems, alter consumption patterns, and damage public and private infrastructure, leading to losses in GDP, income and welfare, particularly among poor and vulnerable households. These risks are already material. Over the period 1951–2015, the country's mean temperature increased by 0.68°C, equivalent to approximately 0.1°C per decade (DOST, 2018). Rainfall patterns have also changed, with some areas experiencing reductions of more than 20 mm per decade during the March–May dry season, while eastern parts of the country have recorded increases of more than 20 mm per decade during December–February. Tropical cyclone behaviour has also shifted, including a movement towards more southern entry points, which includes Mindanao, in recent decades, indicating that climate change is already altering and aggravating the country's exposure to climate-related hazards².

The observed change in the Philippines is projected to continue and intensify over the course of the century. As per Figure 2, multi-model projections indicate that average temperatures will continue to rise, with increases of approximately 1–2°C by 2100, depending on the emissions scenario. While average national rainfall may not change substantially in aggregate, rainfall variability and intensity are expected to increase, and the magnitude and direction of change are likely to differ geographically. Northern and central parts of the country are projected to become wetter, while southern parts, including Mindanao, are projected to become drier throughout the year. Extreme events are also expected to become stronger and more frequent, increasing the likelihood of more severe floods, droughts, landslides, heat stress, and storm-related secondary impacts³.

In the Philippines, these climate pressures intersect with persistent development vulnerabilities. Climate impacts already perform as barriers to development and the projected risks, without action, could reduce GDP by as much

¹ Figure 10.6 in Shaw, R., Y. Luo, T.S. Cheong, S. Abdul Halim, S. Chaturvedi, M. Hashizume, G.E. Insarov, Y. Ishikawa, M. Jafari, A. Kitoh, J. Pulhin, C. Singh, K. Vasant, and Z. Zhang, 2022: Asia. In: Climate Change 2022: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [H.-O. Pörtner, D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem, B. Rama (eds.)]. Cambridge University Press, Cambridge, UK and New York, NY, USA, pp. 1457–1579, doi:10.1017/9781009325844.012.

² World Bank Group, 2022: Philippines Country Climate and Development Report.

³ World Bank Group, 2022: Philippines Country Climate and Development Report.

as 13.6 per cent by 2040, with poorer households most affected⁴. This risk context is particularly relevant in a country where over 17 million Filipinos were living below the poverty threshold in 2023⁵. In this setting, climate change unfolds through physical, ecological and social impacts that contribute to livelihood insecurity, uneven local development, the deterioration of social cohesion, and disproportionate effects on the most vulnerable, while adding pressure to existing structural development bottlenecks.

In the country's National Adaptation Plan (NAP), these compounding climate and economic development impacts are further assessed and elaborated. For instance, one economic effect of extreme temperatures is the projected increase in unproductive days, which, even under SSP2-4.5, an intermediate climate change scenario, could rise to as many as 133 days per year by the decade of 2050-2060, as shown in Figure 3. This is primarily unfolded in productivity losses from extreme heat (up to PHP466 billion), and business interruptions (up to PHP527 billion).

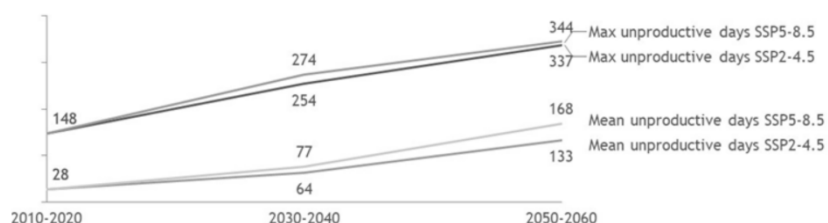


Figure 3 - Number of annual unproductive days (Heat index > 42°C) - National Adaptation Plan (2023-2050)

In this national context, adaptation is imperative to advance development gains under the 2030 Agenda for Sustainable Development and its Sustainable Development Goals (SDGs). Beyond a risk mitigation response, adapting to climate change is expected to have a significant positive effect on the country's development outlook by reducing expected economic losses, safeguarding development progress, and promoting more resilient and inclusive productive investment that can create opportunities for the most vulnerable. Available estimates indicate that adaptation measures in the Philippines could reduce climate-related economic losses by around two-thirds, while the annual cost of making vulnerable new infrastructure climate-resilient and implementing agricultural resilience measures would amount to approximately 0.7 per cent of GDP. As shown in Figure 4, adaptation measures are projected to reduce the mean impact of climate damages from 3.7 per cent to 1.2 per cent of GDP in 2030, and from 11.0 per cent to 3.8 per cent of GDP in 2050.

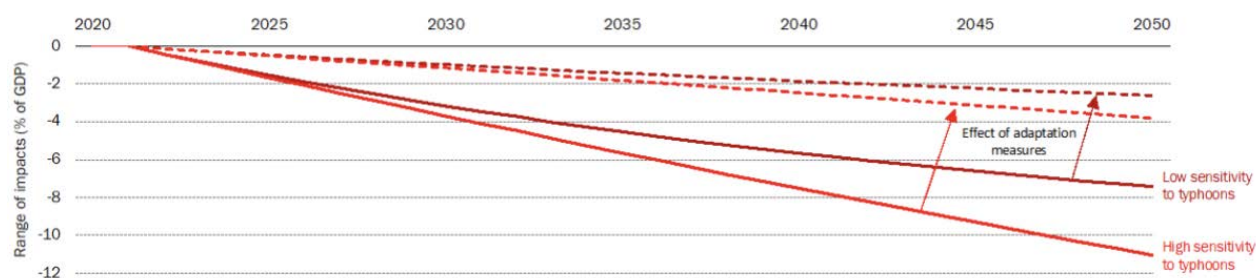


Figure 4 - Adaptation measures could significantly increase GDP relative to the no-adaptation case (World Bank 2022⁶)

The observed impacts and risks at the national level are further exacerbated when contrasted with regional realities and sectoral sensitivity. This is the case of Mindanao, where relatively lower adaptive capacity, high vulnerability, and worsening exposure are compounded by high economic reliance on a highly climate-sensitive agricultural production system. While agriculture represents a relatively modest share of the Philippine economy, accounting for 8% of national GDP in 2024⁷, agricultural relevance at regional level reveals much larger in the project's targeted regions. In the same year, Agriculture, Forestry and Fishing (AFF) accounted for 17.9% of GRDP in Northern

⁴ World Bank, 2022: Philippines Country Climate and Development Report. World Bank, Washington, DC, USA, 112 pp. Available at: World Bank CCDR portal.

⁵ Philippine Statistics Authority (PSA), 2024: 2023 Full Year Official Poverty Statistics of the Philippines. Philippine Statistics Authority, Quezon City, Philippines, 124 pp., 15 August 2024. Available at: PSA poverty statistics portal.

⁶ World Bank CCDR Team estimates based on the MANAGE model.

⁷ Philippine Statistics Authority, 2026: Agriculture, forestry, and fishing maintains growth in Q4 2025. Philippine Statistics Authority, Quezon City, Philippines, 29 January 2026.

Mindanao, 13.6% in Davao Region, and 23.8% in SOCCSKSARGEN⁸. These regional averages themselves still understate the importance of agro-industry in the project geography, both because they are diluted by the weight of larger urban economies and because much of the agri-food system (including processing, storage, transport, logistics, and trade) is recorded outside agriculture in the national accounts⁹. Recent provincial product accounts confirm the relevance of the agro-industry in regional development. AFF accounted for 49.8% of provincial GDP in Bukidnon in 2023 and remained above 25% of provincial GDP in both Davao del Norte (27.5% in 2024) and Davao de Oro (26.5% in 2024)¹⁰. More broadly, the World Bank has estimated that about 60% of Mindanao's economy and employment was driven by agriculture value chains¹¹.

2. National and local adaptation planning context

The project is situated within a policy environment in which adaptation is already recognized as a national priority. The development of the National Adaptation Plan (NAP) of the Philippines 2023–2050 was coordinated by the Climate Change Commission (CCC), and it sets out a mid/long-term adaptation strategy framework, providing national climate impact assessments, identifying sectoral priorities, and designating national authorities to lead the implementation of policies and programs. While the Philippine People's Survival Fund serves as a long-term finance facility for adaptation projects proposed by LGUs and local/community organizations, the NAP also highlights the need to raise local awareness and readiness on how these funds can be tapped to leverage existing resources. Furthermore, recognizing a widening adaptation finance gap and public funding constraints, it sets out innovative financing mechanisms to be pursued, including the mobilization of public and private financing through Adaptation Benefits Mechanisms (ABM). The NAP identifies the ABM as an innovative financing instrument through which *reputable international organizations* could certify the benefits of specific adaptation activities as Certified Adaptation Benefits. These certified benefits may provide additional security or collateral for communities and/or governments seeking upfront loans or equity investments, thereby helping to attract initial investors and unlocking investment, subject to agreed methodologies for measuring and verifying adaptation impacts.

Within this framework, “Agriculture, Fisheries, and Food Security” (AFFS) is identified as one of the eight key sectors for adaptation action. The NAP climate analysis is organized around four climatic impact-drivers (CIDs) considered most critical to the Philippines’ risk and vulnerability: i. increased temperatures and drought, ii. sea level rise and extreme sea levels, iii. extreme precipitation, and iv. extreme wind and tropical cyclones. In the AFFS sector, the physical and socioeconomic impacts include reduced productivity caused by water and heat stress, such as an increased number of consecutive days without precipitation; increased incidence of pests and diseases, such as the spread of Panama disease induced by flooding; lower incomes, including losses from higher rejection rates and shortened shelf-life; and yield reduction linked to climate variability, such as dry spells in the wet season compromising germination or heavy rain in the dry season compromising flowering. The identified CIDs also severely affect soil health, increase pressure on agricultural inputs, and push communities toward maladaptive coping strategies

At the local level, the principal policy entry point for adaptation planning is the Local Climate Change Action Plan (LCCAP). Official guidance defines the LCCAP as the plan formulated by local governments to address climate change concerns and to mainstream climate action into local development plans, including land use plans, sectoral development plans, and investment programmes. The Enhanced LGU Guidebook on the Formulation of Local Climate Change Action Plan (LCCAP)¹² formulation further positions LCCAPs as instruments for defining local risks, vulnerabilities, baseline capacities, and adaptive actions across sectors. In principle, therefore, the Philippines already has a formal architecture through which climate risk can be localized and acted upon, and the completion of

⁸ Philippine Statistics Authority, 2025: Gross Regional Domestic Product: 2024 GRDP Publication. Philippine Statistics Authority, Quezon City, Philippines, April 2025.

⁹ World Bank, 2017: Philippines Mindanao Jobs Report: A Strategy for Mindanao Regional Development. World Bank, Washington, DC, USA, 120 pp., June 2017.

¹⁰ Philippine Statistics Authority, 2025: 2023 Economic Performance of the Provinces and Highly Urbanized Cities in the Philippines: Gross Value Added of Agriculture, forestry, and fishing. Philippine Statistics Authority, Quezon City, Philippines, 14 February 2025.

Philippine Statistics Authority – Regional Statistical Services Office XI, 2025: 2024 Economic Performance, Province of Davao del Norte. Provincial Product Accounts infographic, Philippine Statistics Authority, Davao Region, Philippines, Ref. No. IGDDN2025-031.

Philippine Statistics Authority – Regional Statistical Services Office XI, 2025: 2024 Economic Performance, Davao de Oro. Provincial Product Accounts infographic, Philippine Statistics Authority, Davao Region, Philippines, Ref. No. IG-251182-048.

¹¹ World Bank, 2017: Philippines Mindanao Jobs Report: A Strategy for Mindanao Regional Development. World Bank, Washington, DC, USA, 120 pp., June 2017.

¹² Published by the Local Government Academy (LGA) under the Department of the Interior and Local Government (DILG), 2017.

<https://lga.gov.ph/uploads/publication/attachments/1590498028.pdf>

LCCAP has been already largely integrated in formal compliance checklists and regulation for the release of domestic funds to the LGUs.

Nevertheless, significant barriers and challenges remain. In the formulation, enhancement and updating of LCCAPs, planning processes are often constrained by limited representation, insufficient technical capacity among the officials responsible for the process, limited resources for consultations and meaningful community participation, and inadequate engagement with less organized productive sectors. LGU officials responsible for LCCAP processes are also often overstretched and required to manage multiple functions beyond climate planning. As a result, the planning process can become largely compliance-driven, with limited ownership, insufficient technical depth, and weak capacity to articulate, prioritize and mobilize finance for the adaptation needs of the most vulnerable groups. This limits the extent to which LCCAPs can generate locally implemented actions and produce tangible adaptation benefits.

3. Project-site climate risk and vulnerability context

Within the national and local adaptation planning context described above, the *Advancing adaptation for agro-industry and Post-harvest Transformation in Mindanao's fruits and vegetables value chains* project, hereinafter referred to as 'ADAPT Mindanao', is grounded in a project-site-level assessment of climate risk and vulnerability in Mindanao's FVVC. The evidence indicates that climate-risk information, LCCAP processes and sector-specific assessments have not yet been sufficiently translated into targeted, value-chain-specific and investment-ready adaptation measures for vulnerable fruits and vegetables actors. The principal adaptation gap is therefore expressed through the interaction of climate-related exposure, crop and livelihood sensitivity, and constrained adaptive capacity across production, post-harvest, institutional and financial systems.

The project-site Climate Risk and Vulnerability Assessment (CRVA) provides the main technical basis for the identification and prioritization of the retained project geographies. The analysis was informed by the CIAT–DA-AMIA vulnerability framework, available DA-AMIA regional and provincial CRVA assessments, spatial and biophysical information, participatory validation through key informant interviews and focus-group discussions, and a Direct Beneficiary Survey (DBS). It was further complemented by the ESIA/ESMP formulation process, which assessed land use, water resources, geohazards, social vulnerability, Indigenous Peoples considerations, safeguards requirements and site-specific environmental and social implementation risks.

Under the CIAT–DA-AMIA framework applied in the CRVA, vulnerability is estimated through exposure, sensitivity and adaptive capacity, weighted at 15%, 15%, and 70% respectively. The weighting gives analytical prominence to the conditions that determine whether climate-related disturbances translate into sustained losses or can be managed through anticipatory, absorptive, and adaptive responses. For ADAPT Mindanao, this is directly relevant to the design of the intervention: the project targets adaptive-capacity constraints that are amenable to adaptation finance, including local risk governance, technical know-how, climate-resilient production practices, post-harvest services, cooperative readiness, access to appropriate finance and market-linked investment planning.

The DBS provides quantitative beneficiary-level evidence of observed climate-related risk. A total of 1,143 respondents participated in the survey across the candidate geographies. Recent climate-related hazards reported by respondents include heavy rains, identified by 84%; extreme winds and extreme heat, each identified by 68%; typhoons or storms, identified by 53%; and flooding, identified by 47%. These findings indicate recurrent exposure to compound climate-related hazards, including heavy rainfall, extreme wind, extreme heat, tropical cyclones, flooding, drought, landslides, soil erosion and abrupt dry–wet or hot–cold weather reversals.

These climatic impact-drivers affect both production and post-harvest functions. Heavy rainfall and tropical cyclones damage crops, increase runoff and soil erosion, disrupt farm-to-market access, and affect handling and storage. Drought and heat stress reduce water availability, affect crop development, increase labour stress, and contribute to pest and disease pressure. Abrupt weather reversals affect flowering, fruit set, product quality and disease incidence, particularly in climate-sensitive horticultural systems. The DBS further indicates that 94% of farms, crops, and livelihoods are perceived as prone to climate shocks and climate-related hazards, while 79% of respondents reported impacts on livelihoods and family income. Climate risk in the assessed geographies therefore has direct implications for productive assets, household income, food-systems and local economic resilience.

The CRVA was used to screen and prioritize candidate geographies as per Table 2. Five municipal project geographies were assessed: Midsayap, Talakag, Compostela, Santo Tomas and Paquibato/Davao City. Based on the resulting vulnerability profile, Paquibato was not retained in the project geography because the assessment classified it as having very high adaptive capacity and very low overall climate-risk vulnerability. The retained sites therefore comprise Santo Tomas and Midsayap as high-vulnerability sites, and Talakag and Compostela as moderate-vulnerability sites with clearly identified climate-risk and value-chain adaptation needs.

Project Sites	Sensitivity	Exposure to Hazard	Adaptive Capacity	Climate risk vulnerability
Region 10 Northern Mindanao				
Talakag, Bukidnon	0.41-0.60 (Moderate)	0.41-0.60 (Moderate)	0.41-0.60 (Moderate)	0.41-0.60 (Moderate)
Region 11 Davao				
Sto. Tomas, Davao del Norte	0.61-0.80 (High)	0.61-0.80 (High)	0.21-0.40 (Low)	0.61-0.80 (High)
Paquibato District, Davao City	0.41-0.60 (Moderate)	0.61-0.80 (High)	0.81-1.00 (Very High)	0.00 – 0.20 (Very Low)
Compostela, Davao de Oro	0.41-0.60 (Moderate)	0.61-0.80 (High)	0.41-0.60 (Moderate)	0.41-0.60 (Moderate)
Region 12 SOCCKSARGEN				
Midsayap, North Cotabato	0.61-0.80 (High)	0.41-0.60 (Moderate)	0.21-0.40 (Low)	0.61-0.80 (High)

Table 2 – Summary of the CRVA in the project sites considered

In Santo Tomas, drought, flooding, extreme heat, tropical cyclone exposure and climate-aggravated pest and disease pressure affect banana-based production systems. Low adaptive capacity increases the probability that climate shocks will result in production losses, increased input costs, income instability, and market-access constraints. In Midsayap, mango production and processing are affected by recurrent flooding, drought–rainfall reversals, extreme temperatures and pest outbreaks, while low adaptive capacity constrains anticipatory adaptation. In Talakag, highland vegetable systems are exposed to heavy rainfall, drought, rapid temperature shifts, and soil erosion on steep cultivated slopes. In Compostela, lowland vegetable systems are affected by flooding, heavy rainfall, landslide-prone terrain, and disruptions to production, transport, handling, and storage.

The retained sites present differentiated climate-risk profiles. Adaptation measures must therefore be calibrated to the dominant risk determinants in each geography, including soil and water management in erosion-prone highland systems, flood and drought-resilient production, post-harvest handling in lowland vegetable systems, climate-informed pest and disease management in banana and mango value chains, and strengthened aggregation, storage, processing and market-access functions as climate hazards translate into post-harvest and income losses.

The CRVA, DBS and ESIA also indicate that vulnerability in the retained sites is mediated by social, financial, institutional and environmental conditions. The DBS shows an ageing farmer profile, with 66% of respondents above 46 years old. Many producers remain dependent on high-interest trader credit for seeds, fertilizers and pesticides, while local production systems face persistent deficits in irrigation, transport, post-harvest handling, storage and climate information services. The ESIA further identifies site-specific conditions relevant to implementation, including land use, water resources, geohazards, Indigenous Peoples considerations, marginalized and vulnerable groups, occupational and community health and safety, waste management, pollution prevention, and land and soil conservation. These factors influence the feasibility, targeting and safeguarding requirements of adaptation investments.

The assessments also identify risks of maladaptation. In Santo Tomas, climate-aggravated pest and disease pressure, has contributed to increased chemical use, raising production costs, and contributing to residue-related market-access risks. In Talakag, intensive short-cycle cultivation on steep slopes can reinforce soil degradation where production responses are not accompanied by soil and water conservation measures. These cases illustrate that reactive coping measures may increase future vulnerability, weaken the natural resource base, or lock producers into higher-cost and higher-risk production patterns.

The project-site CRVA, informed by DA-AMIA evidence and complemented by the DBS and ESIA/ESMP analysis, substantiates the integrated adaptation rationale of ADAPT Mindanao. Reducing climate risk in the retained FVVC geographies requires measures that address climate-related exposure, crop and livelihood sensitivity, and adaptive-capacity deficits across production, post-harvest, institutional and financial systems. The project therefore links locally led adaptation planning, climate-risk interpretation, climate-resilient production practices, post-harvest infrastructure and services, cooperative capacity, finance readiness and market linkage. This provides the technical basis for the project's value-chain approach and for the agriculture adaptation rationale presented in the following subsection.

4. Agriculture adaptation rationale for the selected value chains

ADAPT Mindanao focuses on fruits and vegetables value chains (FVVC) because they constitute a high-value, nutritionally relevant and livelihood critical segment of the AFFS sector in Mindanao where adaptation needs remain insufficiently addressed relative to major staple crops. Existing national and international adaptation initiatives have generated stronger institutional coverage, climate information services and climate-resilient agriculture support for rice and corn systems, but the extent of adaptation benefits to vulnerable groups reliant on FVVCs remains limited. The adaptation rationale of ADAPT Mindanao is therefore to extend climate risk informed planning, crop-specific advisory use, post-harvest resilience, cooperative readiness and adaptation finance support to FVVCs that are highly perishable, quality sensitive and more directly exposed to losses beyond the farm gate.

The selected value chains are characterized by the concurrence of climate hazards, exposed production and post-harvest assets, crop and livelihood sensitivity, and constrained adaptive capacity. The relevant hazards correspond to the Philippine NAP CIDs most material to agro-industry in Mindanao: increased temperature and drought, extreme precipitation, and extreme wind and tropical cyclones. Exposure is expressed through the location of farms, workers, aggregation points, transport routes, storage areas and processing points in upland, erosion-prone, flood-prone or water-stressed settings. In the retained sites, exposed elements include highland vegetable plots on steep slopes, banana and mango farms affected by heat and water stress, lowland vegetable systems close to riverine and landslide prone areas, and post-harvest assets that remain vulnerable to heat, rainfall, delayed transport and power interruptions.

Sensitivity is expressed through crop physiology, production calendars, perishability, quality requirements and disease ecology. Extreme heat and dry spells affect flowering, fruit set, plant vigour, soil moisture, labour productivity and product quality. Heavy rainfall during normally drier periods can damage flowers, increase runoff and soil loss, interrupt harvest and transport, and increase fungal and bacterial disease pressure. Abrupt dry–wet or hot–cold reversals are particularly consequential for mango, banana and vegetables because they destabilize flowering and fruiting, increase pest and disease incidence, shorten marketing windows and reduce product grade. Adaptive-capacity constraints then influence the duration and severity of climate-related losses. In the project sites, such constraints include persistent poverty, limited working capital, dependence on high-interest trader credit, limited access to climate-resilient infrastructure and services, weak storage and post-harvest handling, low mechanization and labour intensive production¹³ (Figure 6), limited crop-specific climate information, and insufficient cooperative readiness to prepare bankable adaptation investments. The resulting vulnerability is manifested in lower and less stable yields, reduced quality, higher rejection rates, post-harvest losses, income volatility, indebtedness, and reduced capacity of households and cooperatives to recover from climate-related shocks.

Country	Mechanization by production process					Machinery produce	Level of mechanization (% of machinery application)
	Land preparation	Planting	Threshing	Harvesting	Overall		
China	60%	35%	high	30%	42%	extensively	high (20%<)
India	30%	10%	60%	20%	25-30%	extensively	high (20%<)
Republic of Korea	high	high	high	high	>70%	extensively	high (20%<)
Philippines	13.2%	0.2%	69%	low	medium	few	middle (10%< <20%)
Thailand	high	medium	medium		medium	middle	middle (10%< <20%)
Vietnam	72% (rice)	20%	100%		medium	middle	middle (10%< <20%)

¹³ Mindanao has the five least mechanized provinces in the country. Philippine Center for Postharvest Development and Mechanization (PHilMech), 2023. PH mechanization level increases to 2.679hp/ha—PHilMech. News article by Peter Conrad M. Cariño, 16 June 2023.

In Talakag, the selected value chain is highland vegetables, particularly production systems in Miarayon and surrounding areas. The exposure profile is defined by cultivation on steep upland terrain, rainfall-driven runoff and erosion, and limited protection of harvested produce during aggregation and transport. The sensitivity profile is crop-specific: tomato, cucumber and other highland vegetables are affected by rapid temperature shifts, heavy rainfall, drought and soil degradation, with reported effects including wilting, lesions, internal browning, immature rotting, stunted growth and flower or fruit abortion. The adaptive-capacity constraint is not only technical but also biophysical: severe soil loss associated with steep slopes and intensive short-cycle cultivation reduces the resilience of the production base itself. The adaptation rationale is therefore to combine soil and water conservation, contour-based and vegetative stabilization measures, soil-health restoration, rainwater harvesting, protected nursery systems, climate-informed planting calendars, and low-cost post-harvest and temporary storage options that reduce quality loss in highly perishable vegetables. Farmers and cooperatives would use shared services to separate produce by quality class, maintain higher-grade vegetables for fresh markets through sorting, grading, cleaning, packing and temporary cold or shaded holding, and direct safe but lower-grade or surplus produce into technically feasible value-added forms. Depending on crop mix, these may include fresh-cut or ready-to-cook vegetable packs for institutional and local markets, puree or sauce, pickled vegetables, dehydrated vegetables, and compost or bio-inputs from trimmings and rejected biomass. In this way, value addition reduces the probability that climate affected vegetables are immediately lost or sold under distress conditions, while creating a stronger cooperative basis for quality management, product differentiation and local retention of value.

In Sto. Tomas, the selected value chain is banana. The exposure profile includes drought, flooding, extreme heat, tropical cyclone impacts and water-stress conditions that affect both farms and post-harvest continuity. The sensitivity profile is dominated by the interaction between climatic stress and disease pressure, including *Fusarium* wilt and *Sigatoka*, which can reduce production viability and increase input intensity. The adaptive-capacity constraint is reflected in low capacity to manage climate-aggravated pest and disease risks without resorting to costly or maladaptive chemical responses. The CRVA and consultations identify a residue-related market-access risk associated with intensified chemical use, illustrating how reactive coping can increase production costs and undermine income security. The adaptation rationale is therefore to support climate-informed pest and disease management, safer input-use protocols, soil and drainage improvement, water-management measures, diversified banana or alternative crop packages where technically justified, and post-harvest and market-oriented measures that reduce reliance on high-cost coping responses. Farmers and cooperatives would use shared service infrastructure to segregate compliant fruit by grade and maturity, improve handling and ripening control, and channel suitable produce into differentiated banana products such as dried banana, banana chips, banana flour, puree, vinegar or other processed products where technically and commercially viable. Peels, stems and other residues may also be assessed for animal feed, composting or other by-product uses.

In Compostela, the selected value chain is lowland vegetables. The exposure profile is shaped by heavy rainfall, flooding, proximity to major watercourses, landslide-prone terrain and transport disruption. These hazards affect both production and the movement of perishable produce to aggregation, storage and market points. Sensitivity arises from seedling vulnerability, root-zone waterlogging, disease incidence, physical damage during harvest and transport, and the short shelf life of vegetables under humid or delayed handling conditions. Adaptive capacity is constrained by limited storage, weak post-harvest services, transport reliability, and insufficient service infrastructure for organized aggregation and quality preservation. The adaptation rationale is therefore to strengthen flood-resilient production calendars, drainage and raised-bed and greenhouse systems, seedling protection, water-management practices, climate-resilient aggregation, crop-specific handling and post-harvest services that reduce weather-induced spoilage and stabilize producer income. Depending on the final crop mix and feasibility assessment, shared services may support washed and packed vegetables for local buyers, institutional supply packs, ready-to-cook mixed vegetable packs, dried or powdered chili and other condiments, and pickled vegetables. These value-added outlets are particularly relevant under rainfall-related transport disruption, when temporary storage, packing and processing can extend the marketing window, reduce spoilage, stabilize quality and allow cooperatives to negotiate with buyers on better terms.

In Midsayap, the selected value chain is mango, a perennial fruit system whose productivity and marketability are highly sensitive to climate variability. The exposure profile includes prolonged dry periods, drought–rainfall reversals,

extreme temperatures, strong winds and pest outbreaks. Sensitivity is concentrated in flowering, fruit set, fruit quality, pest incidence and residue-related marketability, with climate variability affecting the reliability of production calendars and harvest outcomes. DA suitability evidence indicates that current mango systems in parts of Midsayap may be approaching hard adaptation limits, meaning that incremental adjustments to existing production practices may not be sufficient under emerging temperature, rainfall and pest-pressure conditions. The adaptation rationale therefore has two linked implications. First, resilience of existing mango value chains may require a more complex production transition, including pruning, tree-height reduction, dwarf or high-density systems, improved flowering management, soil nutrition, integrated pest management, water management and lower-residue protocols. Second, municipal agricultural adaptation cannot rely on mango resilience alone; crop diversification toward fruits and vegetables with higher suitability under projected local conditions will be necessary to reduce livelihood dependence on a climate-constrained perennial crop. Access to shared services must improve access to aggregation, ripeness sorting, grading, washing, pulping, drying, freezing or cold holding, and product development for puree, dried fruits, jam, juice, nectar, wine, frozen pulp or other products that meet food-safety and market requirements. Peels, seeds and trimmings may also be assessed for composting, bio-inputs or other by-product valorization. This is precisely where the broader scientific and policy evidence converges with the site evidence. IPCC AR6 WGII identifies agriculture-sector adaptation options in Asia that include soil management, crop diversification, cropping-system optimization, water management, sustainable land management, and crop pest and disease management. The Philippine NAP similarly prioritizes adaptation in AFFS and recognizes projected impacts on farmland exposure and crop yields. ADAPT Mindanao is therefore justified as an agriculture adaptation intervention because it addresses the concrete production and post-harvest risk through which climate change is already undermining local FVVCs in Mindanao.

5. Problem statement

The overarching adaptation gap addressed by ADAPT Mindanao is that observed climate impacts and projected climate risks in Mindanao's FVVCs are increasingly documented, but are not yet sufficiently managed at the operational points where they generate losses for vulnerable farmers, SMCs, and local food systems. Heat stress, dry spells, unseasonal heavy rainfall, flooding, increased intensity of typhoons, and abrupt weather reversals are already affecting farms, labour productivity, aggregation, storage, processing and market access through yield losses, quality deterioration, pest and disease pressure, rejected produce, reduced processing value, distress sales, debt-inducing coping strategies, unstable livelihoods and weakened local food security. Yet local planning, shared post-harvest services, value-addition capacities, and finance readiness remain insufficient to reduce exposure, lower sensitivity, and strengthen adaptive capacity.

Project Objectives

Theory of Change (ToC)

The ToC of ADAPT Mindanao is that the climate resilience of the most vulnerable actors in Mindanao's FVVC will increase if (i) locally led adaptation capacities and enabling conditions are strengthened; (ii) if access to CRA shared services enables post-harvest adaptation, supports value addition, reduces losses, and improves the position of vulnerable actors within the value chain; (iii) if smallholder farmers and SMCs are able to adopt and integrate sustainable and affordable adaptation solutions into CRA practices at the production level; and (iv) if concessional capital is mobilized in ways that reach the most vulnerable through improved financial readiness among both borrowers and lenders, enabling a shift from viewing adaptation only as risk mitigation to recognizing it as an economic opportunity.

It rests, therefore, on four interrelated hypotheses. The first hypothesis is that resilience will increase when local institutions, producer organizations, and value-chain actors are better able to interpret climate-risk information, define locally relevant priorities, and translate these into adaptation action. This reflects the project's focus on the anticipatory and institutional capital indicators of the adaptive capacity dimension of vulnerability. While Mindanao's FVVCs are exposed to increasing climate hazards, their resilience is also constrained by limited local institutional capacity, fragmented coordination, and the insufficient translation of climate planning into sectoral and gender responsive responses. This hypothesis is closely aligned with two of the five thematic cross-sector adaptation strategies identified in the NAP: (3) empower local governments and communities and (4) mainstream integrated adaptation governance.

The second hypothesis is that resilience will increase when vulnerable actors gain access to CRA shared services

that reduce post-harvest losses, support value addition, and strengthen their position and integration within and across the value chain through aggregation, handling, storage, processing, and market access. This hypothesis recognizes that access to those services will be critical to reducing the exposure of produce, productive assets, and post-harvest activities to three of the four major Philippine climatic impact-drivers identified in the NAP: increased temperature and drought (ITD), extreme precipitation (EP), and extreme wind and tropical cyclones (EWTC). In the targeted FVVCs, these hazards currently translate into reduced quality, shortened shelf life, increased losses, and weakened incomes. Access to CRA shared services will also be critical to strengthening adaptive capacity through the economic, human, physical, and institutional indicators of adaptive capacity. This hypothesis is also closely aligned with two of the five thematic cross-sector adaptation strategies identified in the NAP: (1) strengthen infrastructure resilience and (2) safeguard livelihood with social protection & regulations.

The third hypothesis is that resilience will increase when smallholder farmers and SMCs are able to adopt practical, sustainable, and affordable CRA solutions in their production systems. This reflects the project's focus on addressing the climate sensitivity of selected crops and strengthening the adaptive capacity of farmers, in particular through the natural, social, human, and physical dimensions of adaptive capacity. This means that vulnerability can be reduced where producers have access to appropriate solutions, practical experience, and technical support to integrate these solutions into viable CRA farming that can support increased and more stable productivity, restoration of ecosystem services, and the integration of nature-based solutions. This hypothesis draws on, and is aligned with, two of the five thematic cross-sector adaptation strategies identified in the NAP: (1) strengthen infrastructure resilience, and (5) scale nature-based solutions.

The fourth hypothesis is that resilience will increase when adaptation finance becomes more accessible and usable for the most vulnerable. This requires not only the availability of concessional capital, but also stronger readiness among borrowers and lenders to ensure that access reaches vulnerable farmers and cooperatives. On the one hand, vulnerable farmers and cooperatives need improved financial literacy, climate-risk-informed business planning, and technically validated adaptation options that remain within soft adaptation limits and avoid maladaptation trajectories. On the other hand, financing actors need to enhance their risk assessment capacities, not only to properly account for climate risks, but also to identify viable adaptation related economic opportunities. By increasing access to technically informed, gender-responsive, and inclusive adaptation finance, the project strengthens the economic, human, anticipatory, and institutional dimensions of adaptive capacity, while also contributing to social and physical adaptive capacity where finance improves cooperative readiness, collective investment, and access to resilient productive assets and services. This hypothesis draws on, and is aligned with, the NAP views on adaptation financing implementation (Enabler 6), which focuses on enabling private-sector investment in adaptation and involving local communities and vulnerable groups in adaptation financing strategies and prioritization.

The project operationalizes these hypotheses through three components, structured across the community and local governance level, the beyond-the-farm-gate value-chain level, and the farm-level finance level.

LEAD operationalizes the first hypothesis. It strengthens local adaptation capacity, leadership, coordination, and the enabling environment for locally led adaptation. Through the LEAD to ADAPT Programme, local leadership, targeted FVVC actors, and project-site governance arrangements are supported to assess climate risks, define adaptation priorities, and steer the preparation and operationalization of LCCAP-linked FVVC adaptation packages. The component also builds a longer-term enabling environment through the Mindanao FVVC Adaptation Action Plan for 2030–2050 and its associated technical products, thereby linking local adaptation practice to longer-term regional planning and investment. PROCESS operationalizes the second hypothesis. It strengthens adaptive capacity and livelihood resilience by expanding access to climate-resilient shared service infrastructure, operational know-how, value addition, and market-support. Through the ADAPT to Market Programme and the establishment and operationalization of ADAPT Centres, the component enables cooperatives, farmers, and other targeted actors to access shared service platforms. In this way, it directly addresses the post-harvest and beyond-the-farm-gate dimensions of climate vulnerability. INVEST operationalizes the third and fourth hypotheses. Through the ADAPT to Farm implementation and the development of technical validation and scale-up through certified adaptation benefits, SMCs and their members gain practical experience with CRA while improving financial literacy and readiness for future financing. It also strengthens the capacity of rural finance actors to assess and support climate-resilient agriculture investments more effectively.

Increased climate resilience of the most vulnerable fruits and vegetables value-chain actors in Mindanao, securing and promoting inclusive and sustainable socio-economic development gains in the agro-industry sector							
OUTCOME 1 LOCALLY LED ADAPTATION SYSTEM		OUTCOME 2 CLIMATE-RESILIENT SHARED SERVICE SYSTEM			OUTCOME 3 CLIMATE-RESILIENT AGRICULTURE INVESTMENT SYSTEM		
[SCALE] 2030-2050 Mindanao Adaptation Action Plan for Fruits and Vegetables Value-Chains (FVVC)		[SCALE] ADAPT Centres (Shared Services Facility)			[SCALE] ADAPT to Invest		
[EXPERIENCE] Fruits and Vegetables ValueChain (FVVC) Adaptation Packages		[EXPERIENCE] ADAPT to MARKET Application and Demonstration Series			[EXPERIENCE] ADAPT to FARM CRA Demo Farming (Results Based Mechanism)		
[LEARN] ADAPT to LEAD Programme		[LEARN] ADAPT to MARKET Programme Training			[LEARN] ADAPT to FARM CRA Programme Training		
Component 1 - LEAD Local Empowerment for Adaptation Decision Making		Component 2 – PROCESS Post-harvest Climate Resilient Centres for Shared Services			Component 3 – INVEST Inclusive Financing for FVVC Enhancement and Sustainable Transformation		
AB 1 - Limited capacity, leadership and representation AB 2 - Weak enabling environment		AB 3 - Productive and post-harvest infrastructure AB 4 - Value addition and livelihood diversification			AB 5 - Low finance readiness AB 6 - Limited practical experience with CRA		
Climate Impacts	Lower productivity	Incomes losses	Higher post-harvest losses	Higher production costs	Soil degradation	Higher indebtedness	Climate variability vs planting calendar
Climate Impact Drivers (CIDs) from Philippines NAP	Increased Temperatures and Droughts		Extreme precipitation		Extreme winds and Tropical Cyclones		

Figure 7 – ADAPT Mindanao Theory of Change

Impact: Contributes to the Global Goal on Adaptation by enabling a more systemic, locally led and value-chain-based adaptation for Mindanao's fruits and vegetables agro-industry, in alignment with the Food and Agriculture priority under the UAE Framework for Global Climate Resilience.

Overall Objective: Increased climate resilience of the most vulnerable fruits and vegetables value-chains (FVVCs) actors in Mindanao, securing and promoting inclusive and sustainable socio-economic development gains in the agro-industry sector.

Project Objective 1 – Addressing Vulnerability through Adaptive Capacity (PO1)

Enhance the adaptive capacity of communities and their livelihoods by strengthening locally led adaptation action through the institutional capacities of local government units, small and micro cooperatives, farmers associations and smallholder farmers in the fruits and vegetables value chain.

Project Objective 2 – Vulnerability through Adaptive Capacity and Sensitivity (PO2)

Reduce the vulnerability of small and micro cooperatives in the fruits and vegetables agro-industry to climate variability and change by improving access to their members to finance, climate information services, and adaptation solutions, strengthening climate-risk-informed business planning and investment, and supporting the transition to climate-resilient agricultural systems with lower climate sensitivity.

Project Objective 3 – Addressing Hazards and Exposure (PO3)

Reduce the exposure of smallholder farmers' productive assets to climate hazards in the fruits and vegetables agro-industry in Mindanao by expanding access to climate-resilient agriculture infrastructure for production, storage, and processing.

Adaptation barriers (AB) addressed in the project

Limited locally led adaptation capacity and leadership (AB1): Limited locally led adaptation capacity and leadership: LGUs, cooperatives, and local value-chain actors lack the applied capacity, adaptation-specific knowledge, and institutional leadership needed to assess climate risks and translate them into locally led action.

Weak enabling environment for adaptation-informed planning and investment (AB2): Local climate risk information, LCCAP processes, and sector-specific evidence are not yet sufficiently translated into decision-

making, planning, prioritization, and long-term investment frameworks for the fruits and vegetables value chain.

Insufficient access to climate-resilient productive and post-harvest infrastructure (AB3): Smallholders and small/micro cooperatives remain exposed to climate risks because they lack access to resilient aggregation, storage, processing, and related productive infrastructure.

Limited technical know-how for climate-resilient value addition and livelihood diversification (AB4): Beneficiaries do not yet have the practical skills, operational knowledge, and support systems needed to use post-harvest, processing, and value-addition opportunities to strengthen climate resilience and livelihoods.

Low finance readiness for climate adaptation investment (AB5): Cooperatives and their members lack the financial literacy, climate-risk-informed business planning capacity, and preparation needed to access or mobilize finance adaptation solutions within existing concessional finance.

Limited practical experience and de-risked evidence for financing climate-resilient agriculture (AB6): Financial actors and cooperatives lack tested, site-specific evidence and implementation experience showing that adaptation solutions are technically viable, financially relevant, and ready for replication or financing.

Project Components and Financing

Components	Outcomes	Outputs	USD
Component 1 LEAD – Local Empowerment for Adaptation Decision Making	Outcome 1 [LOCALLY LED ADAPTATION SYSTEM] Strengthened capacity, coordination, and enabling environment for locally led adaptation in Mindanao's FVVCs, enabling nationally identified adaptation priorities to be cascaded into locally implemented action and reflected in longer-term regional planning and investment.	Output 1.1[LEARN & EXPERIENCE] Local leadership, targeted FVVC actors, and existing project-site governance arrangements enabled through the LEAD to ADAPT Programme to assess climate risks, define adaptation priorities, and steer the preparation and operationalization of LCCAP-linked FVVC adaptation packages . [EE: MinDA]	1,125,000
	Outcome 1.2 [ENABLING ENVIRONMENT] Enabling environment for coordinated FVVC investment is strengthened to integrate local and sector-focused climate risk assessments into decision-making.	Output 1.2 [SCALE] Mindanao FVVC Adaptation Action Plan for 2030–2050 developed , supported by regional and sectorial climate risk assessments, technology needs assessments, investment roadmaps, toolkits, sector-specific guidelines, and feasibility assessments for priority fruits and crops. [EE: UNIDO]	1,045,000
	Component 1 Sub-Total		2,170,000
Component 2 PROCESS –Post-harvest Climate Resilient Centres for Shared Services	Outcome 2 [CLIMATE-RESILIENT SHARED SERVICE SYSTEM] Adaptive capacity and livelihood resilience of communities, Small and Micro Cooperatives, Farmers Associations and Smallholder Farmers	Output 2.1[LEARN & EXPERIENCE] Crop-specific ADAPT to Market Programme delivered , strengthening the readiness of smallholder farmers, cooperatives, and targeted FVVC actors to use ADAPT Centres as climate-resilient shared service and market interface platforms for aggregation, post-harvest handling, value addition, and structured	2,029,731

	are strengthened through access to and effective use of climate-resilient shared service infrastructure, operational know-how, value-addition and market-support functions in fruits and vegetables value chains.	engagement with buyers and processors. [EE: UNIDO]	
	Outcome 2.2 [KNOW-HOW] Communities, Small and Micro Cooperatives, and Smallholder Farmers have their livelihoods strengthened and diversified through tools and skills that enable value addition and jobs creation within their local production system.	Output 2.2 [SCALE] ADAPT Centres established, upgraded, and operationalized in targeted project sites as climate-resilient shared service platforms that expand and institutionalize access to aggregation, post-harvest handling, storage, processing, value-addition, and other locally relevant adaptation support functions in FVVC. [EE: UNIDO]	5,518,269
Component 2 Sub-Total			7,548,000
Component 3	Outcome 3	Output 3.1[LEARN & EXPERIENCE]	3,000,000
INVEST - Inclusive Financing for Vegetables and Fruits Value-Chain Enhancement and Sustainable Transformation	[CLIMATE-RESILIENT AGRICULTURE INVESTMENT SYSTEM] Adaptive capacity and on-farm climate resilience of SMCs and their members are strengthened through access to and application of climate-resilient agriculture solutions, climate-risk-informed business planning, and improved alignment of rural finance and concessional capital , reducing dependency on high-interest rates and debt-inducing market conditions.	ADAPT to Farm CRA Programme implemented with selected Small and Micro Cooperatives , combining close support for climate-risk-informed CRA business planning and demo farming to deliver practical experience, and tangible on-farm adaptation benefits through the application of technically sound CRA solutions under real farming conditions. [EE: to be identified prior to the AF Board]	
		Output 3.2 [SCALE] ADAPT to Invest programme implemented with rural finance actors and existing concessional rural finance programmes , enabling them to screen, assess and align investment to CRA opportunities through CRA screening criteria, climate risk assessment approaches, and adaptation-focused appraisal processes. [EE: UNIDO]	540,000
Component 3 Sub-Total			3,540,000
6. Project/Programme Execution cost			566,885
7. Total Project/Programme Cost			13,824,885
8. Project/Programme Cycle Management Fee charged by the Implementing Entity (Adapt Mindanao IE-EE Fee Calculator)			1,175,115
Amount of Financing Requested			15,000,000

Projected Calendar

Indicate the dates of the following milestones for the proposed project/programme

Milestone	Expected Dates
Start of Project/Programme Implementation	JAN/2027
Mid-term Review (if planned)	JAN/2030
Project/Programme Closing	JAN/2032
Terminal Evaluation	JUN/2032

PART II: PROJECT/PROGRAMME JUSTIFICATION

A. Project components

Project approach

ADAPT Mindanao adopts a gender-responsive and inclusive adaptation strategy designed in response to locally identified priorities under the *Agriculture, Fisheries and Food Security* (AFFS) priority sector of the Philippines National Adaptation Plan. The project is aligned with the Adaptation Fund mandate to support the most climate-vulnerable communities and is geographically focused on Mindanao, where climate-sensitive agriculture value chains are increasingly affected by drought, heavy rainfall, flooding, landslides, pest and disease pressure, and post-harvest losses. Sectorally, the project targets a specific subset of the AFFS sector with relatively lower adaptive capacity and less access to adaptation finance: the FVVCs. These value chains are critical to livelihoods, nutrition, and local agro-industry, but have received less adaptation-specific targeting than major commodity crops such as rice and corn. Within this high-vulnerability niche, the project adopts a deliberate vulnerability-based beneficiary targeting approach. It focuses on individuals and communities with comparatively lower adaptive capacity which are reliant in the production of crops with high to moderate climate sensitivity. These are identified as small and micro cooperatives, farmers' associations, and smallholder farmers, with specific attention to agrarian reform beneficiaries, youth, women, Indigenous Peoples, and persons with disabilities.

Built in close consultation and co-design with the targeted communities, the project structures its interventions through three components that: (i) address climate impacts across targeted stages of FVVC activities; (ii) prioritize adaptation benefits for the most vulnerable actors whose urgent adaptation needs would otherwise remain insufficiently addressed; and (iii) assess, reinforce and integrate adaptation options through cross-component output tracks.

As climate impacts are expressed across production, aggregation, post-harvest handling, storage, processing, value addition, and related services, the first intervention design driver (i) considers the differentiated vulnerability and adaptive capacity associated with the various stages of the FVVC. It recognizes that actors across these stages hold and are inserted in local environments with different capacities, face distinct adaptation limits, and require interventions that are carefully designed to preserve equity and affordability in the distribution of adaptation benefits. The project therefore structures its intervention through three components based on interrelated adaptation domains: the local enabling environment through LEAD (Component 1); the beyond-the-farm-gate service and market environment through PROCESS (Component 2); and the farm and cooperative adaptation and investment environment through INVEST (Component 3).

In this way, the project places fit-for-purpose adaptation action where conditions are established, reinforced, and translated into resilience and development gains: LEAD strengthens the adaptation agency of local institutions and communities through existing mechanisms that can deliver and safeguard durable community-wide benefits; PROCESS strengthens access to climate-resilient shared services beyond the farm gate, thereby improving the position of smallholder farmers within the FVVC; and INVEST strengthens climate-resilient agriculture planning and the adoption of production-level adaptation solutions, while supporting finance alignment with capital providers at farm and cooperative level.

The second design driver (ii) gives the project its beneficiary focus. Adaptation benefits are primarily directed to smallholder farmers, SMCs, and farmer's associations whose exposure to climate-related losses is intensified by

weak access to resilient post-harvest infrastructure, limited practical know-how, and low readiness to prepare adaptation investments that would allow them to access and apply suitable adaptation solutions. At the same time, the project engages LGUs, Municipal Agriculture Offices (MAO), Department of Agriculture (DA) regional offices, municipal and provincial government technical staff, and local universities as beneficiaries and enabling actors whose role is central to local anchoring, service delivery, and sustained uptake. Under the guidance of MinDA, ADAPT Mindanao also works with selected cooperatives as first movers and anchor user organizations that connect the ADAPT Centres to the local production. This approach is intended to strengthen the agency of these cooperatives through a model of shared but differentiated responsibility within project implementation, building their capacity and assigning limited but meaningful managerial responsibilities for centre operation and service use. This will be critical to ensuring that the ADAPT Centres remain attractive and accessible to other cooperatives and farmers, while also enabling the first-mover cooperatives to exercise leadership in promoting successful climate-resilient agriculture business models within their municipalities and regions. In this way, the project adopts a beneficiary approach that combines direct support to vulnerable actors with targeted strengthening of the institutions and organizations required to make those benefits effective and sustainable.

The third design driver (iii) gives the project its integration logic through the functions performed by the output tracks: LEARN & EXPERIENCE and SCALE. This design feature supports the project's internal technical coherence, the feasibility of implementation, and the sustainability of adaptation benefits across the different stages of the value chain and the different beneficiary levels being targeted. The components are therefore connected through output tracks that link the delivery of different component functions, establish technical validation points, and create feedback loops across planning, implementation, demonstration, and scale-up. Outputs 1.1, 2.1 and 3.1 perform the combined LEARN & EXPERIENCE output track, while Outputs 1.2, 2.2 and 3.2 perform the SCALE one.

Under LEARN & EXPERIENCE, capacity is strengthened through the combination of training and applied implementation. The completion of the LEAD to ADAPT Programme under Output 1.1 supports the design and start-up of FVVC Adaptation Packages and enables local actors to engage in a whole-value-chain adaptation approach. These packages expand LCCAPs into adaptation-oriented implementation, enhancing the impact of the ADAPT Centres under Output 2.2 by aligning and coordinating project interventions with LGU investments and local development plans. Those include public programmes and projects that can address linked adaptation needs beyond the project scope. Similarly, ADAPT to Farm under Output 3.1 will align with the FVVC Adaptation Packages and, in turn, generate practical lessons that strengthen the design and relevance of the ADAPT to Market Programme under Output 2.1 and the establishment of the ADAPT Centres.

Under SCALE, the three design drivers become more explicit and more closely integrated. It is through this track that the targeted stages of the FVVC, together with the safeguards for equitable sharing of adaptation benefits, are consolidated into a scalable adaptation model that can be carried forward beyond the initial project sites. Under Output 1.2, the project develops the assessments, feasibility work, and planning instruments that inform wider technical and investment decisions, including those relevant to the ADAPT Centres under Output 2.2 and the ADAPT to Farm Programme, including the Adaptation Benefits Grant Mechanism (ABGM) under Output 3.1. Under Outputs 2.2 and 3.2, operational experience from the ADAPT Centres and the technical and financing evidence generated through ADAPT to Farm and the certified adaptation benefits are translated into validation, scale-up, and investment-alignment products. In this way, while generating tangible adaptation benefits in the targeted communities, the project also creates the technical validation and implementation track record required for replication in other municipalities within the respective regions, and for further mobilization of public and private investment.

Project Component 1 [PC1] - LEAD – Local Empowerment for Adaptation Decision Making	
Component Budget	USD 2,255,000
Project Objectives (PO) directly addressed	PO1
Project Adaptation Barriers (AB) directly addressed	AB1 / AB2
AF outcomes (AFO) directly addressed	AFO 1 / AFO 2 / AFO 3 / AFO 7
Executing Entities	MinDA and UNIDO
Key stakeholders, including beneficiaries and strategic implementation partners with no formal execution role:	
National: Climate Change Commission (CCC); DA Climate Resilient Agriculture Office (CRAO) Adaptation and	

Mitigation Initiative in Agriculture (AMIA); Cooperative Development Authority (CDA); Department of Interior and Local Government (DILG) / Local Government Academy (LGA).

Regional/Provincial: MinDA; Department of Agriculture (DA) Regional Offices; provincial government.

Municipal/Barangay:

Office of the Municipal Mayor / Local Chief Executive; Sangguniang Bayan (Municipal Council); Municipal Planning and Development Offices (MPDO); Municipal Agriculture Offices (MAO); Municipal Environment and Natural Resources Office (MENRO); Municipal Disaster Risk Reduction and Management Office (MDRRMO); Municipal Youth Development Office; Municipal Gender and Development Office / GAD Focal Point System; Punong Barangay (Barangay Captain Office), Sangguniang Barangay (Barangay Council), Barangay Development Council, Barangay Disaster Risk Reduction and Management Committee, Barangay Assembly, Sangguniang Kabataan (Youth Council), Barangay GAD focal point; Small and micro cooperatives¹⁴; Local universities/colleges; Local CSOs/NGOs.

Direct Beneficiaries: 1,400¹⁵

Indirect Beneficiaries: 50,000¹⁶

Outcome 1 [OC1] - [LOCALLY LED ADAPTATION SYSTEM]

Strengthened capacity, coordination, and enabling environment for locally led adaptation in Mindanao's FVVCs, enabling nationally identified adaptation priorities to be cascaded into locally implemented action and reflected in longer-term regional planning and investment.

Current scenario, barriers to adaptation, and intended transformation

Component 1 establishes the institutional, technical and planning foundation for locally led adaptation in Mindanao's FVVC. It responds to a core adaptation challenge in the Philippine context: although local climate planning frameworks already exist, their conversion into adaptation-focused, locally led and operational action remains uneven, particularly in climate-vulnerable agricultural municipalities. The component therefore strengthens the capacity of LGUs, cooperatives, farmers' associations and local value-chain actors to move from climate planning to adaptation delivery, while creating the longer-term technical architecture required to connect municipal priorities to a Mindanao-wide FVVC adaptation framework.

The Philippines has an established basis for local climate action. The Local Climate Change Action Plan (LCCAP) framework positions LGUs as frontline actors for local climate planning and situates the LCCAP within the broader local planning and investment system, with climate-responsive priorities expected to connect to the Comprehensive Development Plan (CDP), Local Development Investment Program (LDIP) and Annual Investment Program (AIP). At municipal level, LCCAP formulation is generally undertaken through an LGU-led core team or technical working arrangement, often initiated by the planning or disaster risk reduction and management functions and involving other sector offices and stakeholders. For an agriculture-focused adaptation intervention, this architecture is highly relevant, but insufficient on its own. Local climate plans are often multi-sectoral instruments that cover both adaptation and mitigation, and do not always convert local climate-risk evidence into adaptation-focused, value-chain-specific actions with defined PPAs, institutional responsibilities, technical requirements and links to local service delivery or investment.

Component 1 therefore addresses two project adaptation barriers: limited locally led adaptation capacity and leadership, and a weak enabling environment for adaptation-informed planning and investment. The first barrier (AB1) is the limited operational use of local climate planning for FVVC adaptation. Risks may be recognized at municipal level, yet not sufficiently organized into a coherent set of adaptation-oriented Programs, Projects and Activities (PPAs), local institutional roles and longer-term sector priorities. The second barrier (AB2) is fragmented local coordination. Relevant municipal functions may participate in planning, but coordination across planning, agriculture, disaster risk reduction and management, environment, local economic development and other service

¹⁴ The definition of small and micro cooperatives used follows the Cooperative Development Authority (CDA). Micro cooperative combined assets are PhP3 Million or less; Small, assets are more than PhP 3 million but less than PhP 15 million. Cooperative Development Authority, Memorandum Circular No. 2019-04, Section 3, citing CDA MC No. 2007-07.

¹⁵ Component 1 direct beneficiaries are estimated at 1,400, calculated as a deduplicated total across Outputs 1.1 and 1.2. This means that individuals who participate in both the LEAD to ADAPT Programme under Output 1.1 and the validation, uptake, or use of the Mindanao FVVC Adaptation Action Plan and supporting tools under Output 1.2 are counted only once at component level.

¹⁶ The Component 1 indirect-beneficiary estimate is calculated as a deduplicated total across Outputs 1.1 and 1.2 to avoid counting the same project-site FVVC-dependent community members twice. It counts 40,000 indirect beneficiaries in the four project-site municipalities, estimated as the population materially dependent on fruits-and-vegetables-related livelihoods. To capture the additional reach of Output 1.2, it adds a conservative spillover of 10,400 indirect beneficiaries from non-project municipalities in the same provinces, calculated as 52 non-project municipalities × 200 first-tier indirect users of the regional Action Plan, toolkits, guidelines, feasibility assessments and investment roadmaps. This gives 50,400, rounded to 50,000.

areas is not always sustained into implementation. These constraints limit the ability of LGUs and local actors to steer adaptation delivery in a way that is technically grounded, locally owned and connected to the practical needs of vulnerable fruits and vegetables producers and cooperatives.

The component also responds to the limited institutionalization of local adaptation agency and to the weak connection between municipal priorities and Mindanao-wide strategic direction. Existing processes may generate plans, but not necessarily local focal roles, adaptation champions or leadership arrangements with the capacity to steer and sustain adaptation action. Even when priorities are identified locally, they are not always consolidated into a structured evidence base capable of informing value-chain investment, inter-municipal coordination and longer-term planning. MinDA has a legal mandate to coordinate and harmonize Mindanao-wide and inter-regional development priorities and to ensure consistency between Mindanao programmes and regional and local plans. However, its technical capacity to consolidate adaptation evidence and lead specialized FVVC adaptation programs requires strengthening. Component 1 therefore builds the technical governance needed to connect local planning signals to regional adaptation intelligence and progressively strengthen this function within MinDA over the project duration.

This readiness dimension is also relevant to future domestic adaptation finance. The Philippines has a dedicated national adaptation-finance mechanism, the People's Survival Fund (PSF), established under Republic Act No. 10174 as an annual fund for LGUs and accredited local or community organizations to implement climate change adaptation projects for vulnerable communities. Access to the PSF depends on the ability of LGUs and local proponents to prepare technically coherent, community-responsive and attainable adaptation proposals, supported by climate-risk evidence, local participation, cost-effectiveness considerations and an available climate change adaptation action plan. Component 1 does not depend on PSF resources to achieve its outputs or outcome, but it directly addresses this readiness gap by improving the climate-risk basis, technical coherence, local ownership and planning integration of FVVC adaptation priorities, thereby enabling participating LGUs and local partners to develop future adaptation concepts that may be advanced through domestic climate-finance channels, including the PSF.

The intended transformation under Component 1 is therefore not the creation of a new adaptation planning system, but the strengthening of the existing local planning architecture so that it becomes more adaptation-focused, more inclusive and locally led and more capable of supporting implementation and future investment. In practical terms, this means stronger adaptation-specific capacities, stronger local adaptation leadership, LCCAP-linked FVVC Adaptation Packages that organize local priorities and responsibilities, and a functioning technical mechanism that connects local evidence, project-site experience and longer-term regional decision-making. The component ensures that project priorities are defined by local actors, linked to existing mandates and planning instruments, and positioned to inform the shared services as well as the farm-level and finance-readiness interventions delivered under Components 2 and 3.

Component strategy and intervention logic

Component 1 addresses these barriers through a sequenced intervention logic that combines local capacity strengthening, local adaptation leadership, practical experience in adaptation delivery and long-term technical consolidation. Under Output 1.1, the LEAD to ADAPT Programme strengthens the ability of LGU officials, local technical staff, cooperatives, farmers' associations and targeted FVVC actors to interpret climate-risk evidence through an adaptation lens specific to local productive systems. This learning function builds practical competencies in climate risk and vulnerability, locally led adaptation, inclusive governance, adaptation finance readiness and the resilience of value-chain. It also strengthens the capacity of local actors to identify adaptation priorities, establish focal roles and leadership functions, and connect those priorities to municipal planning, budgeting and implementation processes.

Output 1.1 then converts this learning into practical local adaptation experience through the preparation and operationalization of LCCAP-linked FVVC Adaptation Packages. In each project site, existing governance and leadership arrangements will be supported by a focused FVVC Technical Working Group to define priority adaptation actions, complementary PPAs, local responsibilities, coordination conditions and initial operational follow-through. This allows local actors to move beyond consultation and planning into a structured process of defining, validating and beginning to steer adaptation delivery within their mandates. It also creates the site-level alignment required for the investments and services under Components 2 and 3, including ADAPT Centres, ADAPT to Market, ADAPT to Farm.

Output 1.2 delivers the SCALE function of Component 1 by consolidating local adaptation priorities, LCCAP evidence, project-site experience and sector-specific climate-risk intelligence into a project supported Mindanao FVVC Adaptation Action Plan for 2030–2050. This output establishes the project's regional technical consolidation, decision-support and capacity-transfer to MinDA and regional governments. It will allow locally identified risks, PPAs, constraints and opportunities to be compared across municipalities, commodities and value-chains, and organized into a longer-term framework for coordinated planning and investment. The Action Plan and its supporting products, including climate risk assessments, technology needs assessments, feasibility assessments, investment roadmaps, toolkits and sector-specific guidelines, will identify which responses can be pursued through LGU mandates, which require inter-municipal or regional coordination, which warrant future investment support, and which may be further developed into finance-ready adaptation concepts for domestic or external climate-finance channels, including the PSF.

To ensure methodological integrity and sustained use, Outputs 1.1 and 1.2 will be anchored in a paired technical stewardship arrangement. A UNIDO Agro-Industrial Resilience Project Lead will provide the technical backbone for methodology, evidence consolidation, value-chain analysis, sector translation and preparation of decision-support outputs. In parallel, a MinDA Technical Lead will provide institutional anchoring and progressively absorb this capacity over the project duration. This arrangement creates a substantive technical and institutional capacity-transfer mechanism, enabling MinDA to assume a stronger long-term role in regional adaptation planning for Mindanao's FVVC, consistent with its mandate in planning harmonization, technical coordination and strategic direction for Mindanao.

Project Component 1 [C1] - LEAD		Project Output Track: LEARN AND EXPERIENCE
Outcome 1 [OC1] - [LOCALLY LED ADAPTATION SYSTEM]		
Output 1.1 [OP 1.1] Local leadership, targeted FVVC actors, and existing project-site governance arrangements enabled through the LEAD Programme to assess climate risks, define adaptation priorities, and steer the preparation and operationalization of LCCAP-linked FVVC adaptation packages.		
Budget	USD 1,125,000	
Executing Entity	MinDA	
Identification status: Fully identified		
Key result: LEAD to ADAPT learning Programme completed and a trained local adaptation cohort generated across selected project sites. FVVC Technical Working Groups (FVVC-TWG) draft the FVVC adaptation packages which are endorsed at the LGU level.		
Direct Beneficiaries (DB): 1,100		
i. Province/LGU/Barangay officials and technical staff ' total calculation ¹⁷ : 690		
Project Site 1 (PS1) Midsayap (44 barangays): 250		
Project Site 2 (PS2) Talakag (29 barangays): 175		
Project Site 3 (PS3) Compostela (16 barangays): 110		
Project Site 4 (PS4) Santo Tomas (19 barangays): 125		
Regions X, XI, XII representatives (including MinDA regional officials, DA and provincial government): 30		
ii. Farmers' Cooperatives and Associations (FCA) representatives and members ' total calculation ¹⁸ : 220		
Project Site 1 (PS1) Midsayap: 70		
Project Site 2 (PS2) Talakag: 40		
Project Site 3 (PS3) Compostela: 40		
Project Site 4 (PS4) Santo Tomas: 70		
iii. Local universities and colleges representatives' total calculation ¹⁹ : 40		
iv. CSO/CBO/NGOs representatives' total calculation ²⁰ : 40		
v. Other FVVC and enabling-system actors ²¹ : 110		

¹⁷ 4 project sites, 15 municipal offices/functions per site, with minimum 2 representatives per municipal office/function.

108 total barangays, with minimum 5 representatives per barangay. 10 regional/province officials per region.

¹⁸ The site-level assumptions are: PS1 Midsayap: 10 FCAs × 7 representatives = 70 direct beneficiaries; PS2 Talakag: 5 FCAs × 8 representatives = 40 direct beneficiaries; PS3 Compostela: 5 FCAs × 8 representatives = 40 direct beneficiaries; and PS4 Santo Tomas: 10 FCAs × 7 representatives = 70 direct beneficiaries. This gives a total of 220 FCA representatives.

¹⁹ 4 project sites × 10 local university/college representatives = 40 direct beneficiaries

²⁰ 4 project sites × 10 local CSO/CBO/NGO representatives = 40 direct beneficiaries

²¹ Local traders, aggregators, transporters, packers, processors, input/service providers, market vendors, local enterprise representatives, buyers, logistics actors, and other private or semi-private actors directly linked to fruits and vegetables production, handling, storage, processing, or market access.

Indirect Beneficiaries (IB): 40,000²²

Indirect beneficiaries are estimated as community members materially dependent on fruits-and-vegetables-related livelihoods across the four LEAD to ADAPT sites.

Delivery Approach

Output 1.1 will deliver structured capacity building with experience-based support for site-level adaptation coordination and package preparation. The output will be implemented through two complementary deliverables: the LEAD to ADAPT Programme and the preparation of LCCAP-linked FVVC Adaptation Packages in each project site. The first deliverable will strengthen the institutional and human capacities required for locally led adaptation; the second will apply those capacities through existing governance and leadership arrangements to define site-specific adaptation priorities, coordination conditions, local responsibilities and initial operational follow-through for Mindanao's FVVCs.

The LEAD to ADAPT Programme will be delivered as a structured and site-responsive capacity-building package tailored to the institutional and productive context of the four project sites. It will include the development of the competency framework, curriculum architecture, learning modules, facilitation tools, applied learning methods and participant assessment instruments required for delivery. The programme will combine a common adaptation core with differentiated application tracks, so that LGU officials and technical staff, cooperatives, farmers' associations, local value-chain actors and selected knowledge and support institutions share a common understanding of climate risk, locally led adaptation, the LCCAP methodology and FVVC resilience, while receiving role-specific content relevant to their mandates and operational functions. This will allow the programme to build a common adaptation language across sites while preserving the practical differentiation needed between the different participants.

For delivery purposes, the programme will be organized through site-based cohorts across the four project sites. As an indicative planning basis, the project will organize a minimum of ten site-based cohort cycles, with two principal cohort types per site: one focused primarily on LGU and local institutional actors, and one focused primarily on cooperatives, farmers' associations and other FVVC actors. Additional cross-site or regional sessions may be convened for MinDA and selected technical partners where required to strengthen methodological consistency and support subsequent consolidation under Output 1.2. Each cohort cycle is expected to include four structured learning sessions and two applied practicum sessions, or an equivalent delivery format, combining classroom-style facilitation, technical inputs, case-based exercises and site-relevant application. This structure is intended to provide sufficient depth for learning while remaining operationally manageable within the four-site structure and the broad beneficiary mix identified under the component.

The second deliverable will finance the experience-based capacity-building process through which learning generated under LEAD to ADAPT is applied to local adaptation coordination and package preparation. In each project site, the project will work through existing municipal governance and leadership arrangements relevant to planning, LCCAP implementation, agriculture, DRRM, environment, and local economic development. Within these arrangements, the project will support one focused FVVC Technical Working Group per site to lead the drafting, coordination and consolidation of the LCCAP-linked FVVC Adaptation Package. Support will include technical accompaniment, structured working sessions, drafting support, coordination inputs and package preparation tasks required to define site-specific adaptation priorities, complementary PPAs, institutional support functions, local responsibilities and enabling actions relevant to the FVVC. As an indicative planning basis, each FVVC-TWG is expected to complete three to four structured working sessions over the preparation cycle.

Each project-site package will be grounded in local realities through consultation, validation and initial operational follow-through. At minimum, each package will pass through two structured stakeholder rounds: one consultation round with relevant community representatives and FVVC actors, and one validation or endorsement round through the appropriate local arrangements. These rounds will validate priorities, clarify implementation conditions, confirm local roles and ensure that the package reflects both technical coherence and practical feasibility. Following endorsement, the project will provide targeted support for a limited set of enabling actions that can be initiated within the project scope, such as local coordination tasks, clarification of responsible offices or focal persons,

²² The estimate is derived from the 2024 population of Midsayap, Talakag, Compostela and Santo Tomas, weighted by the agriculture, forestry and fishing share of the relevant provincial or regional economy and adjusted by a conservative 30% factor to reflect that fruits and vegetables represent only a subset of agriculture and agro-industry. This produces an estimated FVVC-dependent population of approximately 39,200 people, rounded to 40,000. The estimate includes farming households, agricultural labourers, cooperative members not directly participating in LEAD to ADAPT, barangay-level producers, aggregators, handlers, traders, transporters, packers, processors, market actors and other local service providers whose livelihoods may benefit indirectly from stronger LCCAP-linked FVVC adaptation packages, improved LGU/barangay coordination, and better alignment of local adaptation priorities with future public programmes and investments.

preparation of simple action trackers, alignment of relevant municipal services with agreed adaptation priorities, and identification of the first farmer groups, cooperatives, barangays or value-chain actors to be reached. The implementation experience generated through package preparation and early follow-through will be documented and consolidated, including how each FVVC-TWG functioned, what priorities and enabling actions were identified, how local actors engaged in consultation and validation, and what practical lessons emerged from early coordination. These lessons will feed directly into regional planning and investment of Output 1.2.

D1.1.1 – LEAD to ADAPT Programme completion package finalized and delivered

This deliverable will complete the LEAD to ADAPT Programme as the structured capacity-building arm of Output 1.1. It will equip local leadership, LGU technical staff, cooperatives, farmers' associations, and other targeted FVVC actors with the applied competencies required to understand climate risk, interpret vulnerability in relation to local production and post-harvest operations, and participate effectively in locally led adaptation planning and decision-making. The deliverable is conceived as an applied, role-differentiated learning package that builds a shared adaptation language across actors while tailoring the content to their actual mandates, operational functions, and value-chain responsibilities.

The LEAD to ADAPT curriculum will be designed as a gender-responsive, socially inclusive, and locally appropriate capacity-building package. It will consider differentiated vulnerabilities, capacities, roles, and participation constraints among women and men, youth, Indigenous Peoples, persons with disabilities, older farmers. The curriculum design will incorporate inclusive facilitation methods, accessible learning materials, locally relevant examples, and delivery arrangements that support meaningful participation. It will also strengthen the ability of participants to assess adaptation options in relation to climate-risk evidence, social inclusion, environmental sustainability, safeguards, and practical implementation conditions.

The programme will be developed in close alignment with existing national tools, guidance, and initiatives relevant to climate-resilient agriculture, local climate planning, and adaptation finance readiness. This will include the DA-AMIA approach to climate-resilient agriculture and CRVA, which provides an established agriculture-sector basis for assessing exposure, sensitivity, and adaptive capacity in Philippine agricultural systems; the DILG/LGA and CCC Enhanced LGU Guidebook on LCCAP formulation, which provides official process guidance on local climate planning, stakeholder participation, risk and vulnerability assessment, option identification, prioritization, budgeting, implementation, and monitoring; and the PSF Training Toolkit, which supports LGUs and local/community organizations to understand the National Adaptation Plan, develop evidence-based adaptation proposals, navigate PSF requirements, and mainstream gender equality, disability and social inclusion in proposal development.

On this basis, the LEAD to ADAPT Programme will cover, at a minimum, climate risk and vulnerability in local fruits and vegetables systems, locally led adaptation principles, gender-responsive and inclusive adaptation governance, the LCCAP and local planning interface, adaptation barriers affecting the value chain, adaptation finance-readiness considerations, and the roles of LGUs and local actors in defining and advancing implementation-ready adaptation priorities. The deliverable will generate a verified cohort of trained local actors with documented completion and learning results.

A1.1.1.1 – LEAD to ADAPT Programme design, localization, and participant mobilization completed

This activity will establish the full technical and organizational package required. It will develop the competency framework, curriculum, module sequence, facilitation guides, participant materials, practical exercises, and simple assessment tools for the programme. At the same time, it will confirm the participants, identify the role-based participant groups to be trained, and designate local focal points to support continuity between learning and subsequent package preparation. As an indicative basis, this activity will culminate in one consolidated programme package and one site-specific delivery plan for each target site, including participant rosters, scheduling, cohort composition, and facilitation arrangements. The activity will be undertaken once during the set-up period, with limited refinements during early roll-out to reflect site-specific needs and participation patterns.

A1.1.1.2 – LEAD to ADAPT structured learning cycle, guided practicum and completion assessment

This activity will deliver the LEAD to ADAPT learning cycle, combining structured learning modules with applied practicum, participant assessment and completion documentation. The core modules will be delivered through site-based workshop rounds, with four modules per site organized through two workshop rounds of one to two days each, depending on local availability and travel conditions. The modules will cover: (i) climate risk, vulnerability and adaptation in local fruits and vegetables systems; (ii) locally led adaptation principles and inclusive adaptation governance; (iii) the LCCAP, municipal planning and institutional mandates relevant to adaptation; and (iv) value-

chain-specific adaptation priorities, enabling measures and local leadership roles. The learning cycle will use facilitated discussion, short technical inputs, group work and problem-solving exercises grounded in site realities. It will also include one to two guided practicum sessions per site, using site-specific climate risk evidence and local value-chain constraints to support participants in applying the training to adaptation prioritization, role clarification and coordination challenges. Completion review and competency assessment will be carried out through pre/post comparison or equivalent participant verification methods. Attendance, participation, assessment and completion records will be consolidated to support output monitoring and reporting.

D1.1.2 – Four LCCAP-linked FVVC Adaptation Packages

This deliverable will translate strengthened capacities into a practical local adaptation coordination and planning product in each project site. Working through existing governance and leadership arrangements, the FVVC-TWG will be supported to prepare a site-specific FVVC adaptation package. Each package will identify the priority adaptation actions, complementary PPAs, local responsibilities, institutional support adaptation focal points, and enabling measures required to strengthen climate resilience in the local FVVC. It is central to the project's locally led adaptation logic because it moves beyond training into real institutional practice. It allows local actors to apply what they have learned through a structured drafting, consultation, validation, and early operationalization process. It will function as a locally grounded coordination and action product linked to the LGU's LCCAP and to subsequent project investments and services. It will also generate implementation experience and lessons that can be consolidated upward into Output 1.2.

A1.1.2.1 – Site-specific FVVC Adaptation Packages drafted, validated, endorsed and initial operationalization supported

Drafting and technical support

This activity will support the preparation, validation, endorsement and initial operational follow-through of site-specific FVVC Adaptation Packages in each project site. A focused Fruits and Vegetables Value Chain Technical Working Group (FVVC-TWG) will be convened in each site as a limited, specialized technical group linked to the existing LCCAP and local planning architecture. The group will be selected among the cohorts of the LEAD to ADAPT Programme. Additional membership will be considered and drawn from relevant municipal offices and selected FVVC actors directly involved in adaptation planning, local implementation and value-chain operations. As relevant to each site, the FVVC-TWG may include representatives from the Municipal Planning and Development Office, Municipal Agriculture Office, Municipal Environment and Natural Resources Office, Municipal Disaster Risk Reduction and Management Office, Gender and Development Office, Youth Development Office, and other offices responsible for cooperative development, local economic development, enterprise support, infrastructure or investment programming, together with selected SMCs, farmers' associations, smallholder farmers, with specific attention to targeted vulnerable FVVC actors, including women, PWD, IPs and youth.

With project facilitation, technical accompaniment, drafting support and coordination inputs, the FVVC-TWG will review local climate-risk evidence, CRVA findings, LCCAP priorities and value-chain constraints to identify site-specific adaptation priorities, enabling measures, planning entry points and local responsibilities. As an indicative planning basis, each site will complete three to four structured working sessions covering climate-risk and value-chain evidence review; identification of priority adaptation issues across production, post-harvest handling, aggregation, storage, processing, transport and market access; mapping of relevant LCCAP-linked PPAs and enabling actions; clarification of roles among municipal offices and FVVC actors; and consolidation of the draft package.

Consultation and validation

Each draft package will then pass through a structured local consultation and validation process, including at least one consultation round with relevant community representatives and FVVC actors and one endorsement round through the appropriate local policy or planning arrangement. Following endorsement, the project will provide limited technical, facilitation, coordination and documentation support to help local actors begin translating the endorsed package into practical implementation arrangements. This may include designation of responsible municipal focal offices or focal persons for priority actions; preparation of simple action trackers, implementation checklists, responsibility matrices or short package workplans; alignment of relevant municipal services with agreed adaptation priorities; identification of initial farmer groups, cooperatives, barangays and value-chain actors to be reached; and scheduling of user-orientation sessions linked to the package.

Project Component 1 [C1] - LEAD		Project Output Track: SCALE
Outcome 1 [OC1] - [LOCALLY LED ADAPTATION SYSTEM]		
Output 1.2 [OP 1.2] Mindanao FVVC Adaptation Action Plan for 2030–2050 developed, supported by regional and sectorial climate risk assessments, technology needs assessments, investment roadmaps, toolkits, sector-specific guidelines, and feasibility assessments for priority fruits and crops.		
Budget	USD 1,045,000	
Executing Entity	UNIDO	
Identification status: Fully identified		
Key Result: Mindanao has a validated FVVC 2030-2050 Adaptation Action Plan for regions X – Northern Mindanao (province of Bukidnon), XI - Davao Region (province of Davao de Oro and Davao del Norte), and XII – SOCCSKSARGEN (Province of Cotabato), and supporting decision tools that consolidate local adaptation experience and guide coordinated public and private climate-resilient investment in the fruits and vegetables value chain.		
Direct Beneficiaries (DB): 1,100		
i. Province/LGU/Barangay officials and technical staff ' total calculation: 490²³		
Project Site 1 (PS1) Midsayap / Province of Cotabato / Region XII: 159		
Project Site 2 (PS2) Talakag / Province of Bukidnon / Region X: 132		
Project Site 3 (PS3) Compostela / Province of Davao de Oro / Region XI: 97		
Project Site 4 (PS4) Santo Tomas / Province of Davao del Norte / Region XI: 100		
ii. Farmers' Cooperatives and Associations (FCA) representatives and members ' total calculation: 420²⁴		
Project Site 1 (PS1) Midsayap: 130		
Project Site 2 (PS2) Talakag: 80		
Project Site 3 (PS3) Compostela: 80		
Project Site 4 (PS4) Santo Tomas: 130		
iii. Local universities and colleges representatives' total calculation: 40		
iv. CSOCBO/NGOs representatives' total calculation: 40		
v. Other FVVC and enabling-system actors: 110		
Indirect Beneficiaries (IB): 40,000²⁵		

Delivery approach

Output 1.2 will convert local adaptation evidence, project-site implementation experience and sector-specific climate-risk intelligence into a structured regional framework for climate-resilient planning and investment in Mindanao' FVVC. The principal product will be the Mindanao Fruits and Vegetables Value Chain Adaptation Action Plan for 2030–2050, supported by climate risk assessments, technology needs assessments, feasibility assessments for priority fruits and crops, investment roadmaps, toolkits and sector-specific guidelines. Together, these products will strengthen the enabling environment under Outcome 1 by ensuring that LCCAP-linked priorities, commodity-specific vulnerabilities, implementation lessons, technology needs and feasibility evidence are consolidated into a practical basis for coordinated planning, prioritization and future investment.

²³ Calculated as 488 Province/LGU/Barangay officials and technical staff comprising: 100 regional, provincial and national public-sector end-users distributed across the four project-sites provincial/regional; 120 municipal LGU end-users from the four project sites, calculated as 4 project sites × 15 municipal offices/functions × 2 representatives; 216 barangay-level end-users, calculated as 108 barangays × 2 representatives; and 52 additional municipal LGU end-users from non-project municipalities in the same four provinces, calculated as one representative from each non-project municipality, excluding cities. Rounded to 490.

²⁴ FCA direct beneficiaries are counted as direct end-users of the Action Plan's farmer-facing and FCA-facing knowledge products, including toolkits, sector-specific guidelines, feasibility outputs and investment roadmaps. The site-level assumptions are: PS1 Midsayap: 10 FCAs × 13 active end-users = 130; PS2 Talakag: 5 FCAs × 16 active end-users = 80; PS3 Compostela: 5 FCAs × 16 active end-users = 80; and PS4 Santo Tomas: 10 FCAs × 13 active end-users = 130. This gives a total of 420 FCA representatives and members. Active end-users may include FCA leaders, board members, managers, production or technical focal persons, post-harvest or marketing focal persons, women/youth representatives, Indigenous Peoples' representatives and lead farmer-members expected to apply or disseminate the tools within their organizations.

²⁵ Indirect beneficiaries are estimated as community members materially dependent on FVVC-related livelihoods who are not directly counted among direct users, validators or institutional adopters, but who may benefit from the use of the Mindanao FVVC Adaptation Action Plan for 2030–2050, toolkits, sector-specific guidelines, feasibility assessments and investment roadmaps. The estimate uses the 2024 population of the four project-site municipalities, weighted by the agriculture, forestry and fishing (AFF) share of the relevant provincial economy as a proxy for agriculture/agro-industry dependence. A conservative 30% adjustment factor is then applied to isolate the fruits and vegetables value-chain subset within the broader agricultural economy, followed by a 75% knowledge-product uptake factor to reflect the fact that benefits are expected to be mediated through LGUs, barangays, FCAs, universities, CSOs/CBOs/NGOs and other FVVC actors rather than delivered directly to all FVVC-dependent people. This produces approximately 29,300 indirect beneficiaries in the four project sites. A further conservative spillover of 10,400 people is added for non-project municipalities in the same provinces, calculated as 52 municipalities × 200 first-tier indirect users, reflecting the regional/provincial uptake potential of the planning and guidance products. The resulting estimate of 39,700 is rounded to 40,000.

Delivery will begin with the establishment of a common methodology for organizing climate-risk information, LCCAP-linked priorities, project-site FVVC Adaptation Packages and implementation experience through a FVVC lens. This methodology will ensure that evidence generated under Output 1.1 and other project activities can be compared across municipalities, commodities, production systems, post-harvest constraints, service gaps and investment requirements. It will also define how local adaptation evidence will be screened, consolidated and positioned for use in regional decision-making, ensuring that the Action Plan is grounded in project-site realities rather than prepared as a stand-alone strategic document.

The delivery process will then generate and consolidate the technical evidence base required for the Action Plan and supporting investment package. This will include climate risk analysis, technology needs assessment, feasibility assessment for priority fruits and crops, and analysis of investment requirements across key value-chain stages, including climate-resilient production support, aggregation, storage, post-harvest handling, processing and value addition, market access, climate information use and local service delivery. The analysis will distinguish between adaptation responses that can be advanced through LGU mandates and local planning instruments, those requiring inter-municipal or regional coordination, and those that should be prepared for future public, private, cooperative or blended investment.

UNIDO will lead the technical preparation of the output, including methodology development, assessment design, and value-chain analysis. MinDA will provide the regional institutional anchoring required to connect the technical work to Mindanao-wide development coordination, long-term planning and alignment with adaptation priorities. Participating LGUs, cooperatives, farmers' associations will contribute with local evidence, implementation experience and validation inputs to ensure that the Action Plan reflects actual adaptation needs, institutional conditions, service gaps and practical investment opportunities.

The output will be supported by a multidisciplinary technical team with capabilities in climate risk and vulnerability assessment, GIS and spatial analysis, agriculture and horticulture systems, fruits and vegetables value-chain analysis, agro-industrial and post-harvest transformation.

D1.2.1 – Mindanao FVVC Adaptation Action Plan for 2030–2050 and supporting climate-risk-informed investment package validated and finalized

This deliverable will comprise the finalized Mindanao FVVC Adaptation Action Plan for 2030–2050 and the associated climate-risk-informed investment package. The package will include consolidated climate risk evidence, technology needs assessments, feasibility assessments for priority fruits and crops, investment roadmaps, practical toolkits, and sector-specific guidelines for climate-resilient fruits and vegetables value-chain development. It will provide the regional framework through which project-site adaptation priorities, LCCAP-linked FVVC adaptation packages, technology options, and implementation lessons are translated into a longer-term planning, coordinated investment and institutional action. It will identify adaptation priorities and investment needs across relevant value-chains, including production support, post-harvest management, aggregation, storage, processing, service delivery, market interface, and finance readiness. It also establishes a practical interface between Component 1 and the wider project. Evidence and priorities from Output 1.1 will inform the Action Plan. Technology, service, and investment needs relevant to ADAPT Centres under Component 2 will be reflected in the technical package. Lessons from the ADAPT to Farm, and finance-readiness processes under Component 3 will contribute to the investment and scale-up the Action Plan as implementation evidence becomes available.

A1.2.1.1 – Methodology, coordination arrangements and evidence base for the Mindanao FVVC Adaptation Action Plan established

This activity will establish the technical, institutional and evidence basis for preparing the Mindanao FVVC Adaptation Action Plan 2030–2050 and its supporting climate-risk-informed investment package. It will define the methodology, analytical scope, evidence framework, consultation and validation process, technical quality standards, and coordination arrangements required to consolidate project-site adaptation experience into a regional planning and investment framework for Mindanao's fruits and vegetables value chains.

The methodology will specify how climate risk information, CRVA findings, LCCAP-linked priorities, project-site FVVC Adaptation Packages, commodity-specific vulnerabilities, sector evidence, stakeholder inputs and implementation lessons will be collected, screened, compared and synthesized through a fruits and vegetables value-chain lens. The evidence base will be organized across municipalities, commodities, actor groups, value-chain functions, adaptation barriers and investment requirements, including exposure to climate hazards, crop and

livelihood sensitivity, adaptive capacity, adaptation limits and priority needs across production, post-harvest handling, aggregation, storage, processing, transport and market access.

The activity will examine how observed climate impacts and projected risks affect priority crops, local production systems, post-harvest assets, cooperatives, public service delivery, local infrastructure, market access and investment needs. It will also consolidate information on differentiated vulnerability and inclusion, including the participation constraints and adaptation needs of women, Indigenous Peoples, youth, PWD, agrarian reform beneficiaries and other FVVC-dependent groups, so that the regional evidence base reflects technical, economic and equity considerations in access to adaptation benefits.

The activity will clarify the working roles of UNIDO, MinDA, participating LGUs, technical partners and relevant value-chain stakeholders, as well as the sequencing of technical studies, stakeholder inputs, regional validation and finalization steps. The activity will result in: (i) an agreed methodology and preparation framework for the Mindanao FVVC Adaptation Action Plan 2030–2050; (ii) a consolidated evidence matrix organizing climate-risk, vulnerability, LCCAP, CRVA, project-site, commodity and value-chain information across the selected sites; and (iii) a regional FVVC adaptation diagnostic note summarizing priority climate risks, adaptation barriers, differentiated vulnerability, adaptation limits and investment needs.

A1.2.1.2 – Climate-risk-informed investment and guidance package developed and Mindanao FVVC Adaptation Action Plan 2030–2050 drafted, validated and finalized

This activity will translate the consolidated evidence base into practical decision-support products for climate-resilient FVVC development and integrate them into the Mindanao FVVC Adaptation Action Plan 2030–2050. It will prepare climate-risk-informed investment and guidance packages for the project sites and priority crops, including technology needs assessments, feasibility assessments, investment roadmaps, crop-specific climate-resilient agriculture toolkits and sector-specific guidance. The work will build on and complement the Provincial Commodity Investment Plans of North Cotabato, Compostela Valley, Davao del Norte and Bukidnon, which are supported by the Department of Agriculture's Philippine Rural Development Project, while focusing specifically on adaptation needs and investment priorities emerging from the project sites.

The technology needs assessments will identify priority adaptation technologies, practices, service models and infrastructure requirements relevant to the selected sites, priority crops and value-chain functions. These may include, as appropriate, climate-resilient storage and post-harvest value addition, water-efficient production support, soil and water conservation practices, integrated pest management, climate information services, waste valorization options and locally relevant adaptation solutions, including nature-based and locally sourced options where feasible.

The feasibility assessments will examine the technical, economic, institutional, social and safeguards-related feasibility of priority options. They will assess whether proposed options are suitable for the specific climate risk, crop system, user group, service model, local capacity and institutional context. The assessments will also identify key conditions for uptake, including operational requirements, maintenance considerations, cooperative readiness, gender and inclusion considerations, safeguards requirements and potential financing constraints.

The investment roadmaps will organize priority adaptation responses for implementation and scale-up. They will distinguish between measures that can be advanced through LGU mandates and local planning instruments, measures requiring inter-municipal or regional coordination, and measures suitable for future public, private, concessional, blended or grant-based adaptation finance. The toolkits and sector-specific guidance will translate the technical findings into practical materials for use by MinDA, LGUs, cooperatives, farmers' organizations and local planning actors.

These technical products will then be synthesized into the Mindanao FVVC Adaptation Action Plan 2030–2050 and its supporting climate-risk-informed investment package. The Action Plan will set out the adaptation rationale, priority climate risks, sector vulnerabilities, adaptation objectives, strategic investment areas, institutional coordination requirements, technology options and implementation considerations for Mindanao's fruits and vegetables value chains. It will identify short, medium and long-term areas of action, distinguishing between locally implementable priorities, regional coordination needs and investment opportunities requiring additional technical preparation or financing.

The consultation and validation will engage MinDA, participating LGUs, relevant regional and municipal technical offices, selected value-chain actors, cooperatives, technical institutions and other stakeholders relevant to planning

and investment prioritization. The process will ensure that the Action Plan reflects the evidence generated through the project, incorporates local adaptation experience, and is institutionally relevant for future use by Mindanao-wide planning and coordination actors. The final draft must then be technically reviewed by the TSAC and endorsed by the GISAC.

The activity will result in a validated Mindanao FVVC Adaptation Action Plan 2030–2050 and a supporting climate-risk-informed investment and guidance package. This package will include: (i) project-site-level climate-responsive technology needs assessments prioritizing locally sourced and nature-based solutions where feasible; (ii) climate-risk-informed feasibility assessments; (iii) investment roadmaps assessing adaptation options against indicative financing pathways, including domestic, international concessional and grant-based adaptation finance; and (iv) crop-specific climate-resilient agriculture toolkits for farmers and FCAs. The final package will strengthen MinDA's regional coordination role by linking climate-resilient agriculture, post-harvest resilience, local economic development and longer-term planning priorities for LGUs and provincial departments, while providing a structured basis for replication, investment programming and institutional coordination beyond the initial project sites.

Project Component 2 [PC2] PROCESS – Post-harvest Climate Resilient Centres for Shared Services	
Component Budget	USD 7,548,000
Project Objectives (PO) directly addressed	PO2 / PO3
Project Adaptation Barriers (AB) directly addressed	AB3 / AB4
AF outcomes (AFO) directly addressed	AFO 1 / AFO 4 / AFO 6 / AFO 8
Executing Entities	UNIDO
Key stakeholders, including beneficiaries and strategic implementation partners with no formal execution role: National: Department of Agriculture (DA), Philippine Center for Postharvest Development and Mechanization; Department of Trade and Industry (DTI); Department of Science and Technology (DOST), including PAGASA; Cooperative Development Authority (CDA); Department of Environment and Natural Resources (DENR), including Environmental Management Bureau (EMB). Regional: MinDA; DA Regional Offices X, XI and XII; DTI Regional and Provincial Offices; DOST Regional Offices and DOST-PAGASA Mindanao Regional Services Division; Provincial Governments of Cotabato, Bukidnon, Davao de Oro and Davao del Norte; Provincial Agriculture Offices; Provincial Planning and Development Offices; Provincial Environment and Natural Resources Offices; Provincial Cooperative Development Offices. Municipal/Barangay: Municipal Governments of Midsayap, Talakag, Compostela and Santo Tomas, including Office of the Municipal Mayor; Municipal Planning and Development Offices (MPDO); Municipal Agriculture Offices (MAO); Municipal Environment and Natural Resources Offices (MENRO); Municipal Disaster Risk Reduction and Management Office (MDRRMO); Municipal Engineering Offices; Business Permits and Licensing Offices; Municipal Social Welfare and Development Offices; Municipal Gender and Development Offices / GAD Focal Point Systems; Public Employment Service Offices (PESO); Small and micro cooperatives ⁹ ; Local universities/colleges; Local CSOs/NGOs.	
Direct beneficiaries (DB): 11,000	
Indirect Beneficiaries (IB): 59,000	
Outcome 2 [OC2] - CLIMATE-RESILIENT SHARED SERVICE SYSTEM Adaptive capacity and livelihood resilience of communities, Small and Micro Cooperatives, Farmers Associations and Smallholder Farmers are strengthened through access to and effective use of climate-resilient shared service infrastructure, operational know-how, value-addition and market-support functions in fruits and vegetables value chains.	

Current scenario, barriers to adaptation, and intended transformation

Component 2 establishes the project's post-harvest adaptation approach for Mindanao's FVVC. It responds to a critical risk transmission point: climate hazards do not end at the farm gate. Extreme heat, heavy rainfall, flooding, drought, wind events, landslides, transport disruption and abrupt weather reversals continue to affect harvested produce through spoilage, quality deterioration, shortened shelf life, delayed movement, lower prices and reduced farmer bargaining power. For perishable crops, these risks are particularly significant because climate stress can quickly convert production gains into post-harvest losses, rejected produce and reduced income.

Smallholder farmers, farmers' associations and small and micro cooperatives are particularly constrained in managing these beyond-the-farm-gate risks. Many lack the scale, capital, equipment, technical support and organizational arrangements required to aggregate produce, manage quality, store crops safely, apply appropriate handling or value-addition practices, and engage markets on better terms. Where facilities already exist, they may not yet be sufficiently configured, managed or accessible to operate as inclusive adaptation platforms. This leaves farmers with limited options: selling immediately after harvest, accepting unfavourable prices, relying on

intermediaries, absorbing quality losses, or losing value that could otherwise be retained locally.

Component 2 addresses two linked adaptation barriers. The first (AB3) is insufficient access to climate-resilient productive and post-harvest infrastructure. The second (AB4) is limited technical know-how for climate-resilient value addition and livelihood diversification. These barriers are compounded as facilities alone do not generate adaptation benefits unless users can organize volumes, manage quality, apply food safety and handling practices, identify viable product options, meet buyer requirements and operate shared services in a sustainable way. Conversely, training and market-readiness support have limited effect if vulnerable producers continue to lack access to the physical service platforms needed to reduce spoilage, protect quality and extend the economic usefulness of harvested produce.

The ADAPT Centres are the project's main response to these barriers. They are conceived as climate-resilient agro-industrial shared service platforms. Their purpose is to provide vulnerable farmers, farmers' associations and small and micro cooperatives with shared access to assets, services and practical support for aggregation, post-harvest handling, storage, value addition and market-interface functions. Commodity-responsive value addition is central to this approach. It becomes an adaptation measure where it reduces exposure to time-sensitive spoilage, heat-related deterioration, rainfall-related transport disruption and price collapse during harvest peaks, while allowing suitable surplus, lower-grade or climate-exposed produce to be redirected into safer, more stable and marketable products where technically, economically and environmentally feasible.

The component recognizes that a single standardized centre model would not be appropriate. The project sites differ in hazard profile, crop system, infrastructure gap, market condition, institutional readiness and sustainability prospects. The Centres will therefore be configured through a proportionate, site-specific approach, with some sites requiring upgrading of existing assets and others requiring new or strengthened aggregation, storage, value-addition or market-interface services. Across all sites, the intended transformation is the same: the post-harvest stage becomes a resilience-building entry point rather than a recurring point of climate-related loss. Through Component 2, then, smallholder farmers, farmers' associations, SMCs, with particular attention to women, youth, IP and persons with disabilities, and agrarian reform beneficiaries gain improved access to services that help them protect produce, manage quality, retain value, diversify income opportunities and engage markets on better terms.

Component strategy and intervention logic

Component 2 translates the enabling conditions developed under Component 1 into practical post-harvest support. It also complements Component 3 by helping protect the value of climate-resilient production gains through improved handling, storage, value addition and market-interface services. In this way, the component connects local adaptation planning, cooperative readiness, shared facilities and buyer engagement within a single sequence of support. Output 2.1 delivers the crop-specific ADAPT to Market Programme, preparing targeted users to organize produce flows, manage quality, use shared services, understand buyer requirements, identify viable commodity-responsive value-addition options and contribute to the preparation and refinement of the ADAPT Centre Business Plans.

Output 2.2 establishes, upgrades and operationalizes the ADAPT Centres as the shared service platforms through which this readiness is put into practice. Their final configuration will be determined during implementation based on climate-risk evidence, crop profiles, existing assets, market assessment, cooperative readiness, safeguards screening, operating arrangements and operation and maintenance sustainability. Together, Outputs 2.1 and 2.2 ensure that Component 2 generates adaptation value not only through physical assets, but through service access, operational uptake, market relevance and resilient value-chain participation. The detailed implementation and operating framework for the ADAPT Centres, including eligible service areas, commodity-responsive value-addition options, access arrangements, safeguards screening, operating principles and sustainability requirements, is provided in the Annex A.

Project Component 2 [C2] - PROCESS	
Outcome 2 [OC2] - CLIMATE-RESILIENT SHARED SERVICE SYSTEM	Project Output Track: LEARN AND EXPERIENCE
Output 2.1 [OP 2.1] LEARN AND EXPERIENCE Crop-specific ADAPT to Market Programme delivered, strengthening the readiness of smallholder farmers, cooperatives, and targeted FVVC actors to use ADAPT Centres as climate-resilient shared service and market-interface platforms for aggregation, post-harvest handling, value addition, and structured engagement with buyers and processors.	

Indicative Budget	USD 2,065,755
Executing Entity	UNIDO
Identification status: Fully identified. Site-specific crop focus, participant mix, and market-engagement will be finalized during implementation in line with ADAPT Centre configuration, cooperative readiness, local climate-risk conditions, and further market assessment.	
Key Result: targeted users, first-mover cooperatives, and other centre-linked actors are prepared to use ADAPT Centres in practice and to translate that use into improved post-harvest management, value addition, and more structured market engagement in the fruits and vegetables value chain.	
Direct Beneficiaries: 1,100 i. Province/LGU/Barangay officials and technical staff ' total calculation: 80 Centre operators, MAO-linked service actors, and local technical support users: 80 Estimated at about 20 direct operational and technical participants per active site, including centre operators and local support actors directly involved in preparing, running, and documenting demonstration and market-engagement activities. ii. Farmers' Cooperatives and Associations (FCA) representatives and members ' total calculation: 780 Smallholder farmers and organized producer participants: 620 Estimated at about 155 direct producer participants per active site across four active sites, covering selected farmers and organized producers directly involved in value-addition demonstrations, product preparation, and market-readiness activities. This must also include members of 4-H youth members (at least 10%) and Rural Improvement Club female members (at least 30%). Cooperative leaders, managers, and operational staff: 160 Estimated at about 40 direct FCA participants per active site, covering first-mover strategic cooperatives directly engaged in demonstration preparation, throughput coordination, product organization, and cooperative business development. iii. Local universities and colleges representatives' total calculation: 40 iv. CSO/CBO/NGOs representatives' total calculation: 40 v. Other FVVC and enabling-system actors: 160 Estimated at about 40 direct market-side participants per active site , covering actors directly engaged through buyer dialogues, processor sessions, showcases, business-development clinics, and structured feedback events. Indirect Beneficiaries: 25,000²⁶	

Delivery approach

Output 2.1 will deliver the crop-specific ADAPT to Market Programme, designed to prepare targeted beneficiaries and ADAPT Centre operators for improved market engagement. The programme will also target agripreneurship actors across the FVVC, particularly those directly or indirectly involved in value-addition processes, with the aim of creating business-to-business opportunities along the farm-to-market journey. The output addresses Adaptation Barrier A4 by strengthening the technical, operational and business capacities required to convert access to shared services into reduced post-harvest losses, improved product quality, local value retention and more structured market participation. It will also prepare the site-level ADAPT Centre Business Plans, which will guide the service configuration, user arrangements, value-addition priorities, operating model and market-facing orientation of each Centre under Output 2.2.

Delivery will begin with the preparation of the common ADAPT to Market Programme package and Business Plan methodology. This will include the training programme and modules, facilitation materials, site delivery plans, diagnostic tools, buyer-engagement templates and ADAPT Centre Business Plan template. The methodology will ensure that each Business Plan defines the priority crops and products to be served, climate-related post-harvest loss issues, proposed centre services, intended users, first-mover cooperative roles, indicative throughput, value-addition options, buyer and processor requirements, food safety and quality requirements, operating-cost assumptions, operation and maintenance needs, safeguards requirements, inclusion measures and sustainability arrangements.

Each ADAPT Centre site will then complete a structured business-planning process. A site-level Business Planning Group will be convened with producers, cooperatives, Municipal Agriculture Offices, relevant LGU offices, post-harvest and food technology specialists, local universities or colleges, buyers, processors, logistics actors, packaging suppliers, cold-chain actors and other relevant private-sector partners. The group will review crop-

²⁶ Estimated from the combined population of the four active Component 2 geographies using a 6% proxy for community members materially reliant on fruits-and-vegetables-related production, handling, transport, packing, processing, trading, and related services who may benefit indirectly from stronger demonstration, market feedback, business-development support, and replication of demonstrated value-addition models.

specific post-harvest constraints, cooperative readiness, user demand, value-addition options, buyer and processor requirements, logistics, utilities, food safety, quality control, safeguards and O&M conditions. This process will result in a validated ADAPT Centre Business Plan for each participating site, ensuring that the Centres are configured around demonstrated crop needs, cooperative capacity, local operating conditions and market requirements.

The project will then deliver the applied ADAPT to Market learning and demonstration series. This will include structured learning, guided centre-use application, product and service demonstrations, and buyer/processor engagement. The learning and demonstration process will prepare users and operators to organize produce flows, manage quality, apply handling and food-safety practices, use shared services appropriately, understand buyer requirements and assess viable value-addition options. The evidence generated through these activities will confirm which service-use models, value-addition options, operating routines and market requirements should be prioritized during centre commissioning and start-up under Output 2.2.

D2.1.1 – Site-level ADAPT Centre Business Plans prepared, technically reviewed and validated

This deliverable will produce one validated ADAPT Centre Business Plan for each site. The plans will define the crop-service interface, user arrangements, first-mover cooperative role, market requirements, operating model, safeguards conditions, O&M assumptions and start-up priorities for each ADAPT Centre.

The Business Plans will build on the CRVA, ESIA/ESMP, Annex B, the FVVC Adaptation Packages under Output 1.1 and the regional and sectoral assessments under Output 1.2. Output 2.1 will not repeat these assessments. It will translate them into the centre-specific decisions required for service design, user access, value addition, private-sector engagement, climate-information use and operational sustainability under Output 2.2.

A2.1.1.1 – ADAPT Centre Business Plan template, diagnostic tools, Business Planning Groups and site workplans established

Business Plan template and diagnostic tools

This activity will produce one ADAPT Centre Business Plan template and a set of diagnostic tools to be applied in each site. The template will cover: crop and product focus; CRVA-based post-harvest risk rationale; proposed service menu; intended users; first-mover cooperative role; user access and scheduling arrangements; indicative throughput and seasonality; buyer and processor requirements; food safety and quality requirements; equipment and service needs; staffing; utilities; O&M; waste and by-product management; safeguards and inclusion measures; indicative service-fee or cost-recovery assumptions; and start-up priorities.

The activity will also prepare five diagnostic tools: (i) post-harvest loss and service-demand checklist; (ii) cooperative readiness and throughput questionnaire; (iii) buyer and processor requirements interview guide; (iv) climate information service-use checklist; and (v) safeguards, inclusion and user-access checklist. These tools will allow each Business Plan to be based on documented site evidence rather than assumptions. The final package will include one template, five diagnostic tools, one validation checklist and one short guidance note for facilitators.

ADAPT Centre Business Planning Groups and site workplans

In parallel, the activity will establish one ADAPT Centre Business Planning Group in each active Component 2 site, for a total of four groups. Each group will include approximately 15–20 members drawn from the first-mover cooperative, Municipal Agriculture Office, relevant LGU offices, prospective centre operator, DA Regional Office / High Value Crops Development Program, DTI, DOST or local technical institutions, post-harvest or food technology specialists, and selected private-sector actors such as buyers, processors, traders, logistics providers, packaging suppliers, cold-chain operators or equipment service providers.

Each Business Planning Group will complete two start-up sessions. The first will serve as an inception meeting to confirm membership, roles, crop or crop-cluster focus and strategic partner inputs. The second will serve as a work-planning session to agree the diagnostic schedule, field visits, focus group discussions, key informant interviews, market consultations and Business Plan preparation timeline.

The activity will result in: (i) one ADAPT Centre Business Plan template; (ii) five diagnostic tools; (iii) one validation checklist; (iv) one facilitator guidance note; (v) four ADAPT Centre Business Planning Groups; (vi) four site workplans; (vii) four participant rosters; and (viii) one consolidated preparation schedule for the Technical Notes and Business Plans.

A2.1.1.2 – Centre-specific Technical Notes and ADAPT Centre Business Plans prepared, reviewed and

validated

Technical Notes

This activity will prepare one centre-specific Technical Note for each site. They will provide the centre-specific evidence needed to prepare the Business Plan.

Each Technical Note will be prepared through the review of the approved project evidence base and Component 1 knowledge products; at least two field visits per site; two cooperative focus group discussions per site with approximately 20–30 participants each; 8–10 key informant interviews per site; and one technical working session to confirm the proposed service menu and crop-specific climate-information interface.

The Technical Note will assess crop volumes and seasonality, aggregation points, spoilage and quality-loss points, handling practices, storage or cooling needs, sorting and grading requirements, processing and value-addition options, packaging needs, buyer and processor specifications, supply regularity, logistics constraints, cooperative capacity, operator requirements, utilities, maintenance needs, sanitation, waste and by-product management, safeguards and inclusion conditions.

It will also define how climate information services can support practical centre-use decisions, including harvest timing, rainfall windows for drying or transport, heat-sensitive handling, pest and disease risk management, typhoon preparedness, delayed dispatch, storage decisions and shared-service scheduling. The technical will seek alignment with DA Regional Offices and the High Value Crops Development Program for crop-specific inputs; DOST-PAGASA and DA-PAGASA / APA experience for climate-information interface; and DTI and TEAM market channels for engagements with buyer, processors and packaging-market inputs. Local universities, state colleges or technical institutions will be engaged for applied post-harvest, food technology and product-development inputs.

Each Technical Note will conclude with the recommended service menu, user groups, first-mover cooperative role, priority value-addition options, private-sector requirements, operating constraints, safeguards conditions and issues to be considered in the Business Plan drafting.

ADAPT Centre Business Plans (ACBP)

The ADAPT Centre Business Plans will use the Technical Notes as the main evidence input. Each Business Plan will define the priority service menu, crop-service interface, intended users, access arrangements, first-mover cooperative role, indicative operating model, value-addition priorities, buyer and processor requirements, climate-information use, food safety and quality requirements, safeguards measures, O&M assumptions, start-up actions and monitoring requirements. Each Business Plan will undergo one technical review by the UNIDO-led ADAPT to Market technical team and two validation sessions with the project's TSAC and GISAC. The technical review will check consistency with the approved evidence base, market findings, cooperative readiness and relevance for the Output 2.2 investment preparation. The validation session will confirm the final service priorities, user-access arrangements, cooperative role, market assumptions, climate-information use, O&M responsibilities and safeguards requirements. Plans with unresolved safeguards risks, unrealistic throughput assumptions, unclear access or benefit-sharing arrangements, weak O&M provisions or unsupported market assumptions will be revised before being used for centre configuration, commissioning and start-up. The activity will result in four technically reviewed and validated Business Plans and one short cross-site synthesis identifying common service models, market requirements, climate-information uses, operational risks and implications for Output 2.2.

D2.1.2 – ADAPT to Market learning, centre-use demonstrations and market engagement delivered

This deliverable will complete the applied delivery of the ADAPT to Market Programme across the four active Component 2 sites. It will start during centre preparation through structured learning and service-readiness work, and will then move into direct use of ADAPT Centre infrastructure, equipment and services as they become available under Output 2.2.

The deliverable will use the validated ADAPT Centre Business Plans and Centre-Specific Technical Notes prepared under D2.1.2 as the basis for delivery. Its purpose is to prepare users, operators and first-mover cooperatives to use the Centres in practice; test selected centre-use routes; engage buyers, processors, logistics actors and service providers; and generate operational evidence for commissioning, start-up and O&M refinement under Output 2.2. Strategic partners will be engaged through consultation and technical alignment. Close coordination with DA Regional Offices and the High Value Crops Development Program will ensure alignment with crop priorities, production calendars and post-harvest needs. DOST-PAGASA and relevant DA-PAGASA / APA experience will be consulted to support the adaptation of available climate information to crop-specific centre-use decisions. DTI

and relevant TEAM-related market channels will be used to help identify and invite buyers, processors, and market actors. Local universities, state colleges, technical institutions and food technology specialists may be consulted or engaged, as appropriate, to align centre-use activities with available post-harvest, processing, food safety and quality-control expertise.

A2.1.3.1 – ADAPT to Market programme package, site delivery plans, strategic partner arrangements and structured learning delivered

This activity will design and deliver the structured ADAPT to Market learning cycle across the four active Component 2 sites: Midsayap, Talakag, Compostela and Santo Tomas. It will prepare one consolidated ADAPT to Market Programme package for use across the four sites, including a curriculum framework, six core technical modules, facilitator guidance notes, participant handouts, practical exercise sheets, pre/post participant assessment forms, attendance and completion templates, and site reporting formats. The activity will also prepare four site adaptation notes explaining how the common package will be applied to each site and one trainer orientation package for facilitators and technical resource persons. The six core modules will cover: (i) climate-related post-harvest losses in the selected crop or crop cluster; (ii) aggregation, receiving, weighing, sorting and grading; (iii) product handling, storage, cooling or temporary holding, where relevant; (iv) pre-processing, processing, packaging and by-product use; (v) food safety, quality control, sanitation and waste handling; and (vi) buyer, processor and logistics requirements. The modules will be designed for crop-specific application by site, with technical inputs from specialists in post-harvest transformation, food technology, cooperative business development, market linkage and safeguards.

The activity will also establish a partner engagement matrix for ADAPT to Market. DA Regional Offices and the High Value Crops Development Program will be engaged to validate crop priorities and crop-specific post-harvest constraints. DOST-PAGASA and DA-PAGASA/APA experience will be engaged to identify climate information that can be adapted for specific crop-service decisions, including harvest timing, rainfall windows for drying or transport, heat-sensitive handling, pest and disease risk, storage decisions and dispatch scheduling. DTI and TEAM-related market channels will be engaged to identify buyers, processors, packaging requirements, product-development advice and business matching opportunities. DOST, local universities, state colleges and technical institutions, food technology institutions and post-harvest specialists will provide technical inputs on product handling, processing, packaging, shelf life, quality control and equipment-use guidance.

Following preparation of the programme package and site delivery plans, the activity will deliver the structured learning cycle for targeted ADAPT Centre users, first-mover cooperatives, centre operators, MAO-linked service actors and local technical support users. Across the four active sites, the project will organize 12 cohorts: two producer/cooperative-user cohorts per site and one first-mover cooperative/operator/service-actor cohort per site. Each cohort will complete four structured sessions, for a total of 48 learning sessions across the four sites. The producer/cooperative-user cohorts will cover approximately 620 smallholder farmers and organized producer participants. The first-mover cooperative/operator/service-actor cohorts will cover approximately 160 cooperative leaders, managers and operational staff, and 80 centre operators, MAO-linked service actors and local technical support users.

The sessions will also cover centre access rules; user scheduling; produce receiving; aggregation; weighing; sorting; grading; product handling; storage or cooling where relevant; pre-processing; processing; packaging; sanitation and food safety; service records; basic cost awareness; and use of climate information for harvest timing, handling, storage and dispatch decisions. Where centre works are not yet completed, the sessions will use service-flow exercises, equipment demonstrations, partner facilities or simulations. Where infrastructure or equipment is available, sessions will be delivered through guided use of the Centre. Each cohort will maintain attendance records, completion records and pre/post learning checks.

A2.1.3.2 – ADAPT to Market demonstration packages and market/service-provider engagement implemented, and consolidate completion evidence

This activity will organize ADAPT to Market demonstration packages and linked buyer, processor, logistics and service-provider engagement across the four active Component 2 sites. It will demonstrate how priority crops or products move through the ADAPT Centre service route, while generating practical feedback from market and service actors to refine product handling, service scheduling, quality requirements, operating procedures and relevant sections of the ADAPT Centre Business Plans.

The project will organize two ADAPT to Market demonstration packages per active site, for a total of eight

demonstration packages. Each package will demonstrate one crop journey for a priority crop or product through the ADAPT Centre, with one cooperative or producer group using the relevant post-harvest or value-addition option identified in the Business Plan. Each crop journey will document the practical sequence followed by the selected crop or product, from receiving and handling to sorting, grading, temporary storage, pre-processing, processing, packaging and dispatch, as relevant to the Centre's service menu.

Each demonstration package will include one pre-demonstration technical session, one centre-based demonstration event, one quality or product review, and one short demonstration report. Each demonstration event will involve approximately 30–50 participants, including producers, cooperative representatives, operators, technical specialists and selected market actors.

Demonstrations may include, depending on site priorities and confirmed Business Plan options: improved aggregation, sorting and grading for quality differentiation; product cleaning, trimming, cutting or portioning for safer handling and improved presentation; packaging and labelling options that improve shelf life, reduce physical damage or meet buyer requirements; temporary storage, cooling or climate-informed dispatch to reduce heat- or rainfall-related deterioration; drying, dehydration, pulping, juicing, fermentation, pickling, jam-making, pureeing, freezing or other processing options for suitable surplus, lower-grade or climate-exposed produce; conversion of peelings, trimmings or other by-products into compost, soil enhancers, animal-feed ingredients or other locally feasible uses; and product quality review against buyer, processor or institutional purchaser requirements.

Each demonstration will document the adaptation benefit supported through the selected crop journey, such as reduced spoilage, improved quality retention, longer product usability, reduced distress selling, safer product handling, improved market readiness, better timing of post-harvest operations, or additional value retained from produce that would otherwise be downgraded or lost.

The activity will also deliver a structured market and service-provider engagement series linked to the demonstration packages. Each active site will complete four engagement events, for a total of 16 events across the project. The site-level series will include one buyer and processor roundtable, one logistics, packaging, cold-chain or equipment-service session, one business-development working session with the first-mover cooperative and selected producer groups, and one demonstration-linked market feedback session.

Each engagement event will include approximately 15–25 participants. Across the four sites, the series is expected to engage around 160 market-side participants, including buyers, processors, traders, institutional purchasers, market vendors, logistics operators, packaging suppliers, cold-chain operators, equipment suppliers, maintenance providers and relevant business support actors. Private-sector actors will participate as market, logistics, service or technical interlocutors, providing practical feedback on product specifications, service reliability, quality expectations and market-entry conditions.

The buyer and processor roundtables will document requirements on product grades, volumes, packaging, quality, food safety, supply timing, price determinants and regularity of supply. The logistics and service-provider sessions will document requirements on transport conditions, cold storage, equipment servicing, packaging materials, maintenance and service reliability. The business-development working sessions will help first-mover cooperatives translate this feedback into service scheduling, product selection, basic costing, quality-control routines and market-facing records. The demonstration-linked feedback sessions will review the demonstrated product or service arrangement and identify required adjustments for the ADAPT Centre Business Plan and centre operating procedures.

The activity will produce eight ADAPT to Market demonstration packages, eight demonstration reports, 16 engagement reports, four site-level market requirement matrices, and one consolidated market access synthesis for Output 2.2. These products will feed into service-menu refinement, Business Plan updates, centre operating procedures, commissioning, start-up support and O&M planning.

Consolidate completion evidence, Business Plan updates and recommendations for Output 2.2

This activity will also compile the operational evidence generated through ADAPT to Market and update the relevant operational sections of each ADAPT Centre Business Plan. It will prepare one site completion package, each including participant completion records, cohort delivery records, pre/post learning results, centre-use trial records, demonstration reports, buyer and service-provider feedback, updated Business Plan sections, climate-information use lessons, safeguards and inclusion observations, and recommendations for centre operating procedures, commissioning, start-up support and O&M.

The consolidated package will compare the four sites and identify common centre-use routes, crop-service interfaces, market requirements, operating constraints, private-sector engagement results and adjustments required under Output 2.2. It will also provide practical inputs to Component 3 where cooperative CRA business planning or finance-readiness work needs to account for post-harvest, value-addition and market requirements.

Project Component 2 [C2] - PROCESS		Project Output Track: SCALE
Outcome 2 [OC2] - CLIMATE-RESILIENT SHARED SERVICE SYSTEM		
Output 2.2 [OP2.2] ADAPT Centres established, upgraded, and operationalized in targeted project sites as climate-resilient shared service platforms that expand and institutionalize access to aggregation, post-harvest handling, storage, pre-processing, value addition, and other locally relevant adaptation support functions in fruits and vegetables value chains.		
Budget	USD 5,482,245	
Executing Entity	UNIDO	
Identification status: Fully identified with Operating Framework. The four project sites for this component are identified, and the eligible intervention framework is defined. However, the final scale and configuration of each ADAPT Centre investment will be calibrated in response to site-specific service gaps, existing assets, climate-resilience needs, and sustainability conditions further articulated through Component 1. This calibration also responds to the degree of LGU interest and readiness to support the institutional uptake of the centre, so that access to and benefits from the investment remain anchored in the public interest.		
Key Result: site-specific ADAPT Centres functioning as climate-resilient shared service platforms for aggregation, storage, pre-processing, advisory, climate information support, and other locally relevant adaptation support functions, as appropriate to each project site.		
Direct Beneficiaries: 11,000 i. Province/LGU/Barangay officials and technical staff ' total calculation: 180 Estimated at about 45 direct and indirect service, including operators, LGU-linked technical staff, and other centre-linked actors required for repeated service delivery and centre functionality. ii. Farmers’ Cooperatives and Associations (FCA) representatives and members ' total calculation: 10,400 Smallholder farmers and other direct producer-users: 10,000 Main direct-user category accessing ADAPT Centre services for aggregation, storage, handling, processing, value addition, and related post-harvest support across the 4 active sites. Cooperative leaders, managers, and operational staff: 400 Estimated at about 100 direct cooperative users per active site, including first-mover cooperatives and other cooperative actors using the centres for collective aggregation, throughput organization, storage management, scheduling, and market coordination. iii. Local universities and colleges representatives' total calculation: 200 iv. CSO/CBO/NGOs representatives' total calculation: 80 v. Other FVVC and enabling-system actors: 320 Estimated at about 80-85 direct market-side users per active site benefiting from consolidated supply, improved quality retention, lower transaction losses, and more structured market interfacing. Indirect Beneficiaries: 59,000²⁷		

Delivery approach

Output 2.2 will establish, upgrade and operationalize ADAPT Centres in the four active Component 2 sites as climate-resilient shared service platforms. The Centres will expand access to the physical assets, equipment, service areas and operating arrangements required to reduce post-harvest climate vulnerability, preserve product quality, retain value locally and support more resilient market participation. The output addresses Adaptation Barrier A3 by responding to the limited availability of climate-resilient aggregation, storage, handling, processing, value-addition and other locally relevant post-harvest infrastructure accessible to smallholder farmers, farmers' associations and SMCs. The detailed purpose, eligible service areas, access principles and operating logic of the ADAPT Centres are set out in Annex A.

²⁷ Estimated from the combined 2024 population of the four active Component 2 geographies (417,991) using a 14 per cent proxy for community members materially reliant on fruits-and-vegetables-related production, labour, aggregation, handling, transport, packing, processing, trading, and related services. This yields 58,519 indirect beneficiaries, rounded to 59,000.

The final configuration of each Centre will be determined during implementation through a site-specific investment preparation process. This reflects the fact that the four active sites differ in climate-risk profile, crop system, existing assets, infrastructure gaps, cooperative readiness, utility conditions, safeguards requirements, market opportunities and long-term operating prospects. Each Centre will therefore be configured through a proportionate investment package that responds to verified adaptation need, service demand, technical feasibility, safeguards clearance, public-interest access arrangements and sustainability conditions. The design will draw on the FVVC Adaptation Packages under Output 1.1, the regional and sectoral assessments under Output 1.2, and the ADAPT Centre Business Plans and Centre-Specific Technical Notes prepared under Output 2.1.

Delivery will follow a controlled investment preparation, procurement, implementation and operationalization sequence. First, the project will prepare site-specific investment preparation and compliance packages confirming the site or asset base, service requirements, user demand, utility conditions, safeguards measures, permitting requirements, access arrangements, operating assumptions and procurement-readiness requirements. Second, the project will prepare engineering, layout, equipment, compliance and procurement documentation, converting each approved centre configuration into costed and procurement-ready documentation for works, equipment, installation, utilities and related technical services. No civil works, facility upgrading, equipment installation or commissioning will proceed before completion of the required site assessment, safeguards screening, compliance review, technical design and procurement preparation.

Third, the project will procure and implement the approved centre investment packages. This may include civil works, rehabilitation or upgrading of existing assets, equipment supply and installation, utility and service arrangements, contractor and supplier management, quality assurance, environmental and social safeguards and technical management. Fourth, the project will commission the Centres and place them into initial operation through confirmed operating arrangements, operator preparation, user-access procedures, service protocols, safety and sanitation procedures, operation and maintenance responsibilities, grievance arrangements, commissioning records and time-bound start-up support linked to the ADAPT to Market activities under Output 2.1. The LGUs, MAOs, first-mover cooperatives and prospective operators will be closely involved in confirming local service needs, user arrangements and operating conditions, while relevant public institutions and strategic partners will be consulted where their mandates or technical guidance are relevant to crop alignment, market requirements, climate information, permitting, safeguards, food safety, utilities or environmental compliance. These actors will not assume formal execution responsibilities unless separately contracted or formally designated under project procedures.

D2.2.1 – Site-specific ADAPT Centre investment preparation and compliance screening packages completed

This deliverable will establish the technical, institutional, safeguards and implementation-readiness basis for the ADAPT Centres. It will produce one investment preparation and compliance package per site, defining the site-specific centre configuration, service requirements, safeguards conditions, operating assumptions, utility needs and procurement readiness parameters required for implementation. The deliverable will be informed by the FVVC Adaptation Packages under Output 1.1, the regional and sectoral assessments under Output 1.2, the centre-specific Technical Notes and ADAPT Centre Business Plans under Output 2.1, and the ADAPT Centre operating framework described in Annex B. The ESMP also requires ADAPT Centre activities to be managed with USP screening undertaken against the AF ESP, Gender Policy, UNIDO safeguards and applicable national requirements before approval or implementation.

A2.2.1.1 – Complete site, asset, service-demand, feasibility assessments, and safeguards and compliance screening for each ADAPT Centre

This activity will prepare one site-specific investment assessment for each of the four active Component 2 sites. Each assessment will confirm the proposed site or existing asset base, the climate-related post-harvest service gap to be addressed, the intended user base, first-mover cooperative role, indicative crop and product flows, service-demand assumptions, access conditions, utility requirements and operating constraints.

The assessment will be carried out through a combined desk and field process. For each site, the UNIDO-led technical team will review the relevant FVVC Adaptation Package, Output 1.2 assessment findings, the Technical Note and ADAPT Centre Business Plans (ACBP), ESIA/ESMP information and Annex A operating framework. This will be followed by at least two field verification visits per site, one technical discussion with the LGU and Municipal Agriculture Office, one working session with the first-mover cooperative and prospective users, and targeted consultations with relevant market, logistics, post-harvest or technical actors identified in the ACBP.

The assessment will be prepared for UNIDO, the concerned LGU, the Municipal Agriculture Office, the first-mover cooperative, prospective centre operator and the Output 2.2 technical design team. It will be prepared by the UNIDO-led Component 2 technical team, supported by contracted specialists in post-harvest systems, agro-industrial facility planning, utilities and service systems, safeguards, and cooperative development.

Safeguards, compliance, permitting and public interest access screening

This activity will also complete the environmental, social, legal and institutional screening required before technical design, procurement and implementation proceed in each site. The screening will verify land access or asset-use arrangements, local permits, environmental requirements, labour and occupational safety considerations, waste and wastewater issues, food safety and sanitation requirements, Indigenous Peoples considerations where relevant, grievance arrangements, inclusion measures and public-interest access conditions.

For each site, the screening will include one legal and land-access verification, one environmental and social safeguards screening as per the ESMP and GAP, one review of applicable permits and clearances, one public-interest access review, and one safeguards integration meeting with the LGU, Municipal Agriculture Office, first-mover cooperative and prospective operator. Where Indigenous Peoples or ancestral-domain-related considerations are relevant, NCIP procedures and culturally appropriate engagement requirements will be integrated before site-level implementation decisions are finalized.

The screenings will be implemented by a UNIDO-led technical team, with inputs from contracted environmental and social safeguards specialists, legal or permitting specialists as required, the concerned LGU offices, Municipal Agriculture Office, MENRO, MDRMO, GAD Focal Point System, first-mover cooperatives and prospective operators. DENR/EMB, NCIP, DOST, DA, DTI or other public institutions may be consulted where their mandates or technical guidance are relevant. These institutions will contribute through coordination, consultation or technical input and will not assume formal execution responsibilities.

The activity will result in four site-specific investment assessment and compliance screening notes in accordance with the project ESMP and GAP. Each note will identify the proposed centre configuration, eligible service areas, user groups, indicative throughput assumptions, existing assets to be upgraded or complemented, new assets or equipment required, utility and access requirements, operating constraints, permits or clearances required, safeguards and inclusion measures to be incorporated into design and procurement, and any risks or conditions requiring revision before implementation. Proposed configurations with unresolved safeguards risks, unclear land or asset-use conditions, unacceptable exclusion risks or unmanageable compliance requirements will be revised before procurement preparation.

A2.2.1.2 – Prepare centre investment configuration, procurement-readiness and implementation planning packages

This activity will consolidate the technical, service-demand, feasibility and safeguards findings into one implementation package per ADAPT Centre. Each package will define the approved site-specific investment configuration, service menu, design requirements, equipment and utility needs, implementation sequencing, procurement lots, indicative budget envelope, safeguards obligations, contractor or supplier requirements, commissioning needs and start-up support requirements.

The package will be prepared through one consolidation working session per site and one cross-site review by the UNIDO-led technical team. The site-level session will confirm the configuration with the LGU, Municipal Agriculture Office, first-mover cooperative and prospective operator. The cross-site review will ensure that procurement packaging, equipment specifications, safeguards requirements and implementation sequencing are coherent across the four sites and suitable for UNIDO procurement planning. The activity will be undertaken by the UNIDO-led Output 2.2 technical and procurement-preparation team, supported by contracted engineering and post-harvest equipment specialists.

The activity will result in four centre investment configuration and procurement packages and one consolidated Output 2.2 implementation schedule. These products will provide the basis for engineering, equipment specification, cost estimation and tender preparation under D2.2.2.

D2.2.2 – Site-specific engineering, equipment, compliance and procurement packages prepared

This deliverable will convert the approved investment preparation packages into implementable technical and procurement documentation. It will ensure that each ADAPT Centre is specified as an operational shared service platform, with the layout, equipment, utilities, service areas, user flows, safety measures, safeguards requirements

and operating provisions needed to enter implementation.

A2.2.2.1 – Prepare engineering, layout and service design packages

This activity will prepare one engineering, layout and service design package for each ADAPT Centre. Each package will translate the approved centre configuration into technical drawings, spatial layouts, user and produce-flow arrangements, receiving and handling areas, storage or processing areas where relevant, utility layouts, sanitation arrangements, drainage and waste-management provisions, safety requirements, maintenance access and space for user orientation, record-keeping or advisory support where included in the ACBP.

The design process will include one design inception meeting per site, one technical design review per site, one safeguards integration review and one final design confirmation meeting. The design will incorporate the operating assumptions defined in the ACBP, including service menu, user-access arrangements, first-mover cooperative participation, operator requirements, sanitation controls, equipment placement, maintenance needs, climate-information access where relevant, and safeguards measures identified during screening.

The activity will be prepared for UNIDO, the concerned LGU, prospective centre operator, first-mover cooperative and contractors or suppliers that will later implement works and installations. It will be led by UNIDO with contracted engineering, architectural, agro-industrial facility design, post-harvest equipments, utility and safeguards specialists. LGUs, MAOs, prospective operators and first-mover cooperatives will be consulted to confirm user movement, operational practicality and access arrangements. The activity will result in four engineering, layout and service design packages. Each package will include technical drawings or equivalent layouts, service-area specifications, utility requirements, safeguards integration measures, user-flow arrangements and design inputs required for procurement documentation.

A2.2.2.2 – Prepare equipment specifications, cost estimates and implementation schedules, procurement tender documentation and contract requirements

Equipment specifications, cost estimates and implementation schedules

This activity will prepare the equipment, systems and cost documentation required to implement each ADAPT Centre investment. For each site, the package will define the technical specifications for civil works, rehabilitation or upgrading, equipment supply, installation, utilities, storage or cooling systems where justified, post-harvest and value-addition equipment, sanitation systems, waste-handling arrangements, safety equipment and related technical services.

The activity will be carried out through technical specification drafting, market sounding,, cost estimation, safeguards review and procurement sequencing. Each site package will include equipment schedules, bills of quantities or equivalent costed schedules, installation requirements, warranty and maintenance requirements, technical acceptance criteria, delivery timelines and environmental and social obligations to be included in procurement documents.

The activity will be led by UNIDO with contracted procurement, engineering, post-harvest equipment, cost-estimation and safeguards specialists. Procurement planning will follow UNIDO procurement procedures, including the preparation of clear technical specifications, qualification requirements, exclusion criteria and evaluation criteria. The activity will result in four costed equipment and implementation packages, or consolidated multi-site packages where this is more efficient (e.g clustering project sites). These packages will provide the technical basis for procurement of works, goods, equipment, installation and related services.

Procurement tender documentation and contract requirements

This activity will also prepare procurement documentation for the approved ADAPT Centre investment packages. The documentation will include statements of works, technical specifications, terms of reference where required, bills of quantities or equivalent schedules, supplier or contractor qualification requirements, evaluation criteria, delivery conditions, installation requirements, safeguards clauses, OHS requirements, reporting obligations, commissioning requirements and technical acceptance procedures.

The procurement documents may be organized by site, by equipment category, by works package, by installation package or through consolidated multi-site procurement where this improves efficiency, competition and quality control. The final procurement structure will reflect the approved investment configuration, market availability, delivery sequencing and UNIDO procurement requirements.

The activity will be led by UNIDO through its technical and procurement teams, with inputs from contracted

engineering, safeguards, post-harvest equipment and cost-estimation specialists. LGUs, MAOs and first-mover cooperatives will be consulted only where their input is required to confirm site access, installation logistics, delivery windows, local utility conditions or operating assumptions. The activity will result in procurement-ready tender documentation for the selected ADAPT Centre investments.

D2.2.3 – Selected ADAPT Centres established, equipped, commissioned, tested and placed into initial operation

This deliverable will deliver the physical and operational investment package for the selected ADAPT Centres. It will include completed works, installed equipment, verified utility and service arrangements, commissioning records, centre operating arrangements, operator preparation and start-up support.

A2.2.3.1 – Procure and manage contracts for ADAPT Centre works, equipment, installation and related services

This activity will manage the procurement and contract administration processes required to establish, upgrade, equip and prepare the ADAPT Centres for operation. It will cover final procurement packaging, solicitation, bid management, technical evaluation, contract award, contractor and supplier coordination, contract administration, safeguards requirements, quality assurance, delivery monitoring and technical acceptance.

The activity will cover the procurement of civil works, rehabilitation or upgrading works, equipment supply, equipment installation, utilities-related services, storage or cooling systems where justified, sanitation and waste-management provisions, safety equipment and specialized technical services required by each approved Centre package. Procurement and contract management will be undertaken in accordance with UNIDO procedures and approved safeguards and compliance requirements as per the ESMP. The activity will be led by UNIDO, with procurement, technical, safeguards, and contract-management support. Contractors, suppliers, and service providers will be selected through the applicable UNIDO procurement processes. LGUs, MAOs and prospective operators will be coordinated to facilitate site access, delivery arrangements, installation scheduling and local readiness, without assuming formal procurement or execution responsibilities.

The activity will result in awarded contracts or purchase orders for the approved ADAPT Centre works, equipment, installation and related services, together with contract management records, delivery schedules, safeguards obligations and quality assurance arrangements.

A2.2.3.2 – Implement works, equipment installation and utility/service arrangements

This activity will implement the approved physical investment package for each ADAPT Centre. Depending on the site specific configuration, this may include rehabilitation of existing assets, establishment of new shared service areas, installation of post-harvest handling or value-addition equipment, storage or cooling systems where justified, water and power arrangements, drainage and sanitation works, waste-handling arrangements, access improvements, occupational safety measures and other service-enabling works.

Implementation will be carried out by contracted works contractors, suppliers, installers and specialized service providers under UNIDO contract management and technical supervision. The process will include site mobilization, works or installation delivery, safeguards compliance monitoring, technical inspection, defect identification and correction, equipment installation verification, utility verification and handover to commissioning.

The activity will result in one physical implementation completion record per Centre. Each record will document works completed, equipment installed, utilities connected or verified, safeguards measures implemented, inspections completed, defects or corrective actions identified, and readiness for commissioning.

A2.2.3.3 – Commission ADAPT Centres, conduct guided centre-use trials, provide start-up support and establish operating arrangements

This activity will move each ADAPT Centre from completed asset to functioning shared service platform. It will establish the operating arrangements, including management responsibilities, operator roles, O&M responsibilities, service menu, user access and scheduling procedures, safety and sanitation protocols, record keeping, grievance arrangements, user orientation procedures, safeguards follow-up and the practical role of first-mover cooperatives and MAO-linked actors.

Commissioning and operating arrangements

For each Centre, the commissioning process will include technical commissioning checks of completed works, installed equipment, utilities, sanitation systems, safety arrangements and user-flow provisions. It will also include

one operator orientation session, one responsible-user orientation session with first-mover cooperatives and selected user groups, and one commissioning review meeting with the LGU, MAO, prospective operator and UNIDO technical team. The activity will be led by UNIDO technical team. Contractors and suppliers will participate in commissioning according to their contractual obligations. LGUs, MAOs, first-mover cooperatives and prospective operators will participate in operating arrangement confirmation and user-orientation activities.

Guided centre-use trials

This activity will also support supervised trial use of the ADAPT Centres as infrastructure, equipment and service areas become available. Each active site will complete three guided centre-use trials, for a total of 12 trials across the project. At least one trial per site will be conducted during commissioning or immediately after equipment installation, and at least two trials per site will be conducted during early operation. Each trial will involve approximately 25–40 participants, including cooperative users, producer representatives, centre operators, MAO-linked service actors and relevant technical specialists.

The trials will test the priority centre-use routes identified in the relevant Business Plan, such as produce receiving and aggregation; weighing and recording; sorting and grading; storage or cooling-as-a-service; washing or packing where applicable; drying; cutting; pulping; packaging; product quality checks; by-product separation; cleaning and sanitation; or waste-handling routines. They will produce one centre-use trial record documenting the crop or product used, participant group, centre-use route tested, operator tasks, handling or processing time, observed quality results, equipment issues, sanitation observations, user-access issues, safety or safeguards concerns, and required adjustments to operating procedures. The 12 trial records will feed into commissioning, service-menu refinement, operator preparation and O&M planning under Output 2.2, and will be coordinated with ADAPT to Market activities under Output 2.1. *Start-up support and handover to regular centre use*

This activity will provide time-bound start-up support to ensure that each ADAPT Centre begins operating as an accessible climate-resilient shared service platform. The support will cover initial service scheduling, operator coaching, user orientation, first service-cycle documentation, O&M tracking, safeguards follow-up, troubleshooting of early operational issues and coordination with the ADAPT to Market activities under Output 2.1.

For each Centre, start-up support will include at least two operator coaching visits, two user-orientation or service-use sessions, one O&M review, one safeguards and access review, and one operational handover meeting with the LGU, MAO, first-mover cooperative and prospective operator. The first service cycles documented under this activity will focus on whether users can access the Centre, whether operators can apply the service protocols, whether equipment and utilities function as intended, whether records are maintained, and whether any access, safeguards, maintenance or scheduling issues require correction.

The activity will be led by UNIDO with the LGUs and MAOs. First-mover cooperatives and operators will participate in start-up and handover arrangements. Strategic partners may be consulted where early operational issues relate to crop guidance, climate information, food safety, market requirements, utilities or regulatory compliance. The activity will result in one start-up support report per Centre and one consolidated operational readiness note. These products will document early service use, operator readiness, user-access performance, O&M issues, safeguards observations, unresolved constraints and recommendations for continued centre operation and monitoring.

Project Component 3 [PC3] - INVEST – Inclusive Financing for Vegetables and Fruits Value-Chain Enhancement and Sustainable Transformation	
Component Budget	USD 3,540,000
Project Objectives (PO) directly addressed	PO2 / PO3
Project Adaptation Barriers (AB) directly addressed	AB5 / AB6
AF outcomes (AFO) directly addressed	AFO 4 / AFO 6 / AFO 8
Executing Entities	UNIDO and EE for OP3.1
Key stakeholders, including beneficiaries and strategic implementation partners with no formal execution role:	
National: Department of Agriculture (DA); Department of Science and Technology (DOST), including PAGASA; Cooperative Development Authority (CDA); Landbank, Development Bank of the Philippines.	
Regional: MinDA, DA Regional Offices X, XI and XII; DTI Regional and Provincial Offices; DOST Regional	

Offices and DOST-PAGASA Mindanao Regional Services Division; Provincial Governments of Cotabato, Bukidnon, Davao de Oro and Davao del Norte; Provincial Agriculture Offices; Provincial Planning and Development Offices; Provincial Environment and Natural Resources Offices; Provincial Cooperative Development Offices. Municipal/Branagay: Municipal Governments of Midsayap, Talakag, Compostela and Santo Tomas; Municipal Planning and Development Offices (MPDO); Municipal Agriculture Offices (MAO); Municipal Environment and Natural Resources Offices (MENRO); Municipal Disaster Risk Reduction and Management Office (MDRRMO); Municipal Social Welfare and Development Offices; Municipal Gender and Development Offices / GAD Focal Point Systems; Public Employment Service Offices (PESO); Direct Beneficiaries (DB): 2,300 Indirect Beneficiaries (IB): 10,000 Outcome 3 [OC3- CLIMATE-RESILIENT AGRICULTURE INVESTMENT SYSTEM] Adaptive capacity and on-farm climate resilience of Small and Micro Cooperatives and their members are strengthened through access to and application of climate-resilient agriculture solutions, climate-risk-informed business planning, and improved alignment of rural finance and concessional capital, reducing dependency on high-interest rates and debt-inducing market conditions.

Current scenario, barriers to adaptation, and intended transformation

Component 3 addresses the farm-level adaptation and access to finance readiness constraints faced by SMCs and their members. Smallholders are already experiencing climate-related production losses, crop-quality deterioration, pest and disease pressure, water stress, soil degradation, rising input costs and debt exposure. The NAP and the DA CRVA, complemented by project-site level consultation and CRVA, show that farms, crops and livelihoods are affected by recurrent heavy rainfall during the dry season, extreme heat, drought, dry-spells during the rainy season, flooding, landslides, abrupt weather reversals and climate-related infrastructure disruption. These hazards interact with severe soil loss, limited water availability, weak post-harvest handling, limited access to localized climate information, and dependence on high-cost input credit.

The climate hazards are, then, already translated into farm-level losses through site-specific sensitivity factors and constrained adaptive capacity. Erosion-prone production areas, water stress, pest and disease pressure, weak post-harvest conditions and limited access to suitable services reduce the ability of farmers and cooperatives to adjust production practices in advance of climate shocks, absorb losses without deepening debt exposure, or invest in technical and affordable suitable CRA measures. Component 3 therefore focuses on the point where climate risk becomes an investment-readiness constraint: cooperatives require support to diagnose the climate-sensitive production problem, select an appropriate CRA response, validate it under local farming conditions, and prepare it in a form that can be assessed by finance actors and concessional programmes.

The component responds to two linked adaptation barriers; the project identified AB5 and AB6. The first (AB5) is the limited readiness of cooperatives to translate observed climate impacts into technically and financially credible climate-resilient agriculture investment proposals. Many cooperatives can describe the losses they face, but require support to define a CRA response in operational terms: the climate risk being addressed, the suitability of the proposed measure, implementation requirements, costs, responsibilities, expected adaptation benefits and safeguards considerations. Without this support, adaptation needs remain general and difficult to assess, finance or replicate.

The second barrier (AB6) is the limited local evidence available and limited experience in guiding CRA investment decisions. CRA options may be technically relevant in principle, but farmers, cooperatives, public programmes and rural finance actors often lack site-specific evidence on how a proposed measure performs under local crop, soil, water, labour and market conditions. This uncertainty weakens uptake and makes adaptation investments harder to appraise. Component 3 therefore places technical validation and demo farming at the centre of the intervention, so that selected CRA solutions are not only planned, but applied under real farming conditions and documented for wider cooperative and community learning and future finance engagement.

The intended transformation is that participating cooperatives move from reactive coping and weak investment preparation toward climate-risk-informed planning, demonstrated field application and stronger readiness for future adaptation finance. CRA proposals will be required to show a clear link to observed climate impacts and projected climate risks, and to demonstrate how the proposed measure will reduce exposure, lower sensitivity or strengthen adaptive capacity in the specific site context. This is particularly important in Mindanao, where some coping responses, including increased chemical use in response to climate-aggravated pest pressure, have created new

income and market-access risks. Component 3 therefore supports technically grounded CRA measures that strengthen resilience while maintaining feasibility, safeguards, inclusion and sustainability considerations.

Component strategy and intervention logic

Component 3 connects the local adaptation priorities developed under Component 1 and the post-harvest support provided under Component 2 with farm-level CRA planning (LEARN), demo farming (EXPERIENCE) and finance alignment (SCALE). It is delivered through two programmes: ADAPT to Farm and ADAPT to Invest. ADAPT to Farm supports SMCs to translate climate-sensitive production constraints into CRA Business Plans and, following technical validation, to implement approved demo farming packages under local production conditions. This enables participating cooperatives and smallholders to apply selected CRA measures, generate practical adaptation evidence, and document implementation requirements, costs, risks and replication potential.

ADAPT to Invest engages rural finance actors, cooperative finance actors, public finance institutions and relevant concessional programmes while the field demonstrations are being prepared and implemented. This allows CRA screening criteria, climate-risk assessment approaches, appraisal processes and finance-readiness materials to be informed by evidence generated through ADAPT to Farm. The intervention logic is therefore sequential and cumulative: cooperatives are supported to plan, demonstrate and document technically suitable CRA solutions, while finance actors are supported to assess future CRA proposals through an adaptation lens. In this way, Component 3 strengthens the transition from high-interest, debt-sensitive coping toward better-prepared, technically validated and adaptation-focused investment in climate-resilient agriculture.

Project Component 3 [C3 - INVEST]		Project Output Track: LEARN AND EXPERIENCE
Outcome 3 [OC3 CLIMATE-RESILIENT AGRICULTURE INVESTMENT SYSTEM]		
Output 3.1 [OP 3.1 - LEARN & EXPERIENCE] ADAPT to Farm CRA Programme implemented with selected Small and Micro Cooperatives, combining close support for climate-risk-informed CRA business planning and demo farming to deliver practical experience, and tangible on-farm adaptation benefits through the application of technically sound CRA solutions under real farming conditions.		
Budget	USD 3,000,000	
Executing Entity	To be identified prior to the AF Board consideration	
Identification status: Unidentified Sub-Project (USP). USP type: Partially unidentified: specific locations identified, activity partially unidentified.		
Key Result: selected small and micro cooperatives and their members complete the ADAPT to FARM programme resulting in tangible adaptation benefits at the farm level while generating evidence for an improved concessional finance readiness and replication supported by Output 3.2.		
Direct Beneficiaries (DB): 2,200		
i. Province/LGU/Barangay officials and technical staff ' total calculation: 60 Estimated at about 15 direct technical and service actors per site, including LGU-linked agricultural staff, local technical facilitators, and site-level support actors directly engaged in mentoring, implementation support, and monitoring.		
ii. Farmers' Cooperatives and Associations (FCA) representatives and members ' total calculation: 2,000 [ADAPT to FARM Business Plan] Cooperative leaders, managers, operational staff and core prospective demo-farming participants: 160 (40 per project site) [ADAPT to FARM Demo-Farming] Smallholder farmers and organized producer participants: 2,000. Estimated at about 500 direct participating members and farmers across the four sites, covering the principal farmer participants engaged in the planning, application, and learning process.		
iii. Local universities and colleges representatives' total calculation: 20 Estimated at about 5 per project site, including local researchers working on climate-resilient agricultural practices and gender-sensitive assessments of climate impacts and risks, who are engaged in business planning and demo farming activities.		
iv. CSO/CBO/NGOs representatives' total calculation: 40 Estimated at about 10 per project site, including local leadership working on climate-resilient agricultural practices and/or structural development barriers that amplify the effects of climate impacts.		
v. Other FVVC and enabling-system actors: 80 Estimated 20 per project site from rural finance actors, credit cooperatives, public finance actors, and relevant		

concessional finance programmes directly engaged through ADAPT to FARM activities.

Indirect Beneficiaries (IB): 10,000²⁸

Delivery approach

Output 3.1 will deliver the ADAPT to Farm CRA Programme as a structured and closely mentored cooperative support package that links climate-risk-informed planning, technical validation and endorsement, and field-based application. The output is formed by two integral and complementary parts of the ADAPT to Farm CRA Programme. The first is the CRA Business Planning part (LEARN), which provides the structured and closely mentored process through which each participating cooperative identifies the climate-sensitive production problem to be addressed, defines the proposed CRA response, and prepares a climate-risk-informed CRA Business Plan. The second is the Demo-Farming part (EXPERIENCE), through which the technically validated and endorsed CRA Business Plan is translated into field application under real farming conditions so that the cooperative and participating farmers can apply, experience, and refine the selected CRA solution in practice. Small and micro cooperatives in the project sites will be selected based on observed climate impacts, existing climate vulnerability and projected climate risks as per national, regional and project level assessments that were complemented by the project's targeted consultations during formulation phase.

For the ADAPT to FARM Business Plan, the cooperatives will then receive accompanied technical support by local technical delivery partners to prepare a CRA Business Plans grounded in their specific crop systems, farming practices, exposure profile, sensitivity factors, adaptive capacity constraints and cooperative operating conditions. The planning process will use available Component 1 climate-risk evidence, aligne with LCCAP-linked FVVC adaptation packages (LEAD to Adapt – OP1.1) priorities, and relevant technical guidance to ensure that proposed CRA measures respond to observed and projected climate risks rather than general productivity constraints. Benefiting from the project cross-components output tracks, the plans will also consider the service, post-harvest and market functions supported under Component 2 (ADAPT to Market – OP2.1), so that farm-level adaptation measures are compatible with the wider value-chain conditions required to sustain adaptation benefits.

Completed CRA Business Plans will undergo technical review and validation by the project Technical and Scientific Advisory Committee (TSAC) and subject to the endorsement of Gender, Inclusion and Social Safeguards Advisory Committee (GISAC) before any progression to ADAPT to FARM Demo-Farming phase. The review will assess whether the proposed CRA measure is climate-risk-informed, technically appropriate for the crop and site conditions, operationally feasible for the cooperative, consistent with safeguards requirements, and capable of generating practical evidence on vulnerability reduction. Operationally, the ADAPT to FARM Business Plan will serve as the principal application instrument for the ADAPT to FARM Demo-Farming phase that will be delivered through an Adaptation Benefits Grant Mechanism (ABGM). The application will, therefore, include eligible activities, identification of participating plots and farmers, technical support requirements, documentation responsibilities, monitoring arrangements and conditions for internal replication. Once these steps are completed, the CRA Business Plan is enacted as a CRA Demo-Farming grant package.

For the ADAPT to Farm Demo-Farming, as detailed in Annex B, an executing entity to be identified prior to the Board consideration will manage the farm-level implementation of the CRA Business Plan through an milestones based mechanism that tracks the direct support of adaptation benefits to the the targeted beneficiaries. The purpose is to move from capacity building to applied farm-level adaptation practice, allowing participating cooperatives and smallholders to implement the selected measure, observe performance under local conditions, and record adaptation-relevant results such as changes in climate-related losses, input use, water or soil management, crop quality, production continuity, cost exposure or replication feasibility. By the end of the output, participating cooperatives will have a technically reviewed CRA Business Plan, field experience in applying the endorsed measure, and documented evidence to guide wider uptake among members and future engagement with finance actors.

D3.1.1 – ADAPT to Farm CRA Programme package and cooperative entry arrangements finalized

²⁸ Estimated from the broader target beneficiary base of the selected cooperative systems across the five project sites. These indirect beneficiaries comprise other cooperative members and associated farming households not directly participating in CRA Business Planning or Demo Farming, but expected to benefit through internal replication, improved cooperative planning, stronger farm-level adaptation performance, and reduced dependence on high-interest and debt-inducing market conditions. This estimate is consistent with the wider participatory evidence base used in the CRVA, which worked with an overall direct target beneficiary base of about 1,700 across the five sites.

This deliverable will establish the technical and operational package required to implement ADAPT to Farm. It will provide the common methodology through which selected small and micro cooperatives prepare climate-risk-informed CRA Business Plans, receive structured mentoring and technical assistance, confirm the participant cooperative and members, undergo eligibility and exclusion screening, and progress to technical scoring used by the ADAPT to FARM Demo-Farming, validation and endorsement where the required conditions are met. The deliverable will include the CRA Business Plan template, field diagnostic formats, mentoring materials, eligibility and exclusion screening formats, technical scoring and validation criteria to be used by the TSAC, safeguards and inclusion screening tools as established by the ESMP, format of the Demo-Farming Grant package, implementation tracking templates and adaptation-benefit documentation tools. The detailed eligibility, exclusion, validation, grant agreement, milestone-based disbursement and verification provisions are set out in Annex B.

The programme will support at least one eligible small or micro cooperative in each active Component 3 site. Additional eligible cooperatives may be considered where technically justified, consistent with the site's CRA Business Plan pipeline, and feasible within the ADAPT to Farm grant envelope and the procedures set out in Annex B. As a minimum delivery basis, the output will work with four participating cooperatives, one in each active site. Each participating cooperative will designate a focal team of approximately six cooperative leaders, management staff and implementation focal persons, including dedicated gender and youth focal points. Each cooperative will also organize a CRA Business Planning group of approximately 10 participants, and a core prospective demo-farming participant group of approximately 30 registered cooperative members. Wider cooperative members will be engaged through cooperative assemblies, field learning events and internal dissemination so that the demo-farming evidence can inform internal replication beyond the direct participants.

A3.1.1.1 – Develop the ADAPT to Farm CRA Programme package, delivery tools and implementation methodology

This activity will prepare the common ADAPT to Farm package required to guide CRA Business Planning, screening, validation, demo-farming preparation, field implementation, monitoring. It will be delivered through at least two site-level consultation sessions - including dedicated gender sessions; one technical co-design sessions building on and closely aligning with DA-AMIA methodology and parameters; and will include at least one co-designing working session with the DA-Regional Office, MinDA, the respective Municipal Agriculturists. MAO officer. Aligning with the project ESMP and GAP, this process must result in the validated CRA Business Plan template, field diagnostic guide, mentoring materials, eligibility checklist, exclusion and maladaptation screening form, technical scoring matrix, safeguards and inclusion checklist, Demo-Farming Grant package template, field monitoring template, adaptation-benefit documentation template and implementation guidance note. The package will define how cooperatives identify the climate-sensitive production problem, select the CRA response, document participating members and plots or production clusters, estimate costs, identify safeguards and inclusion measures, define adaptation-benefit indicators, and prepare the information required for screening, scoring, validation and conversion into Demo-Farming Grant Implementation Packages.

The tools developed under this activity will be applied with participating small and micro cooperatives, cooperative focal teams and farmer-members during the CRA Business Planning, screening, validation and demo-farming preparation process. The activity will be executed by a specialised executing entity selected by UNIDO, coordinated through the PMU, and supported by national or international experts, firms or service providers contracted during implementation where specialized inputs are required. Relevant expertise may include climate-resilient agriculture, agronomy, soil and water management, integrated pest management, cooperative business planning, adaptation finance, safeguards, gender and inclusion, monitoring and evaluation, and knowledge documentation. The activity will result in one consolidated ADAPT to Farm CRA Programme package and one implementation methodology.

A3.1.1.2 – Confirm cooperative entry arrangements, site calendars and participant cohorts

This activity will operationalize ADAPT to Farm by confirming at least one eligible cooperative per site, applying the initial eligibility and exclusion requirements, establishing cooperative focal teams, preparing participant rosters and agreeing the site delivery calendar. It will be delivered through three structured start-up sessions in each active site:

- one cooperative inception meeting with approximately 10–15 participants, including cooperative leaders, management staff, DA-Regional Office representatives, Municipal Agriculture Office officials and project personnel;
- one field participant orientation session with approximately 60–80, including prospective demo-

farming participants;

- and three ADAPT to FARM Business Plan implementation planning sessions with approximately 15–20 participants, including the cooperative focal team, selected farmer-members, local agricultural support actors and project technical personnel.

These sessions will confirm the cooperative's crop focus, climate-risk issues, proposed and update participant groups, indicative plots or production clusters, planning schedule, reporting arrangements, field-support needs and follow-up responsibilities. Municipal Agriculture Offices, LGU-linked agricultural actors, local technical institutions and other relevant partners will be consulted or coordinated with for site-level technical inputs, field access and local follow-up, without formal execution responsibilities unless separately designated under project procedures. The activity will be executed by a specialised executing entity selected by UNIDO, coordinated through the PMU, with site-level organization led by the Regional Coordinator and technical inputs mobilized through UNIDO technical team and contracted expertise as required. The Executing Entity to be identified for the ADAPT to Farm grant mechanism will participate in accordance with the final approved execution and grant-management arrangements.

D3.1.2 – Climate-risk-informed CRA Business Plans prepared, technically reviewed and endorsed

This deliverable will generate the cooperative-level CRA Business Plans that, if technically approved and endorsed, will guide demo-farming implementation under the ADAPT to FARM Demo-Farming. Each selected cooperative will prepare one CRA Business Plan that identifies the climate-sensitive production problem to be addressed, defines the CRA response, specifies participating farmers and plots or production clusters, sets out implementation and costing requirements, and establishes the expected adaptation benefits and monitoring arrangements.

Completed CRA Business Plans will pass through a formal technical review and endorsement process before any transition to demo farming. This review will confirm that the proposed CRA package has a clear adaptation rationale, is technically feasible, is suitable for the cooperative and participating farmers, and meets the safeguards, inclusion and grant-readiness requirements set out in Annex B.

A3.1.2.1 – Deliver the structured CRA Business Planning cycle, with farm diagnostics and close mentoring

This activity will deliver the structured planning cycle through which each participating cooperative prepares its CRA Business Plan. Each cooperative will complete six planning sessions over approximately 10–12 weeks with the cooperative focal team and a core planning group of approximately 40 participants. Building on the DA-AMIA assessments and HVC programme, the six sessions will cover: climate-risk interpretation and production constraints; identification of the climate-sensitive production problem structured as a crop-journey; selection of the CRA response; confirmation of participating farmers, plots or production clusters; costing, implementation schedule and cooperative responsibilities; and completion of the draft CRA Business Plan, including safeguards, inclusion and adaptation-benefit monitoring provisions. Across four active sites, the activity will deliver at least 24 CRA Business Planning sessions.

Farm diagnostics and mentoring

This activity will also provide the field-level technical accompaniment required to make the CRA Business Plans specific to actual farming conditions. Each participating cooperative will receive at least three farm diagnostic and mentoring visits, two plan-refinement working sessions and desk-based review support. The diagnostics will examine the crop system, climate exposure, soil and water conditions, pest and disease pressures, production calendar, current farm practices, input use, labour requirements, existing coping responses, plot or production-cluster suitability, implementation feasibility and safeguards considerations. The plan-refinement sessions will translate these findings into the final CRA Business Plan, including the adaptation rationale, technical package, budget, implementation schedule, monitoring indicators and internal replication assumptions. Across four active sites, the activity will deliver at least 12 farm diagnostic and mentoring visits and eight plan-refinement working sessions. Each farm diagnostic visit will involve approximately 10–20 participants, depending on the size of the proposed demo-farming group and the number of plots or production clusters to be reviewed.

Beneficiaries and participants will include selected small and micro cooperatives, cooperative focal teams, farmer-members selected for CRA Business Planning, and local agricultural actors whose technical knowledge can support site-specific planning. The activity will be coordinated through the PMU and delivered with technical inputs mobilized according to the content of each planning cycle, including climate-resilient agriculture, cooperative business planning, adaptation finance, safeguards, gender and inclusion, and value-chain or market-access expertise where relevant.

Field support will be organized through the Regional Coordinator, with specialized technical inputs mobilized according to the proposed CRA package and site conditions. National and international experts, firms or service providers may be contracted to provide agronomic, soil and water management, crop-specific pest and disease management, integrated pest management, climate-information and cooperative operations support. Municipal Agriculture Offices and LGU-linked agricultural actors will be coordinated with to support site-specific agricultural information, field relevance, field access and local follow-up. The activity will result in at least four completed CRA Business Plans ready for eligibility screening, exclusion review, technical scoring and validation, together with documented participation records for the cooperative focal teams and planning participants.

A3.1.2.2 – Review, validate, and endorse CRA Business Plans for transition into demo-farming

This activity will take completed CRA Business Plans through the formal review sequence set out in Annex B. Each plan will undergo eligibility and exclusion screening, followed by technical scoring and validation where the plan passes the initial requirements. The screening will verify whether the cooperative and proposed package are admissible, whether the package is linked to fruits and vegetables value chains, whether it responds to climate-risk evidence, whether it benefits registered cooperative members, whether it avoids maladaptation risks, and whether safeguards, inclusion and benefit-sharing arrangements are credible. The scoring and validation stage will assess the strength of the CRA Business Plan as an adaptation investment case, including climate-risk rationale, adaptation additionality, technical soundness, implementation readiness, financial bankability and adaptation-benefit verification. The review will result in one of four decisions: endorsed, conditionally endorsed, returned for revision, or rejected.

Each CRA Business Plan will undergo one eligibility and exclusion screening, one technical scoring and validation review, and one endorsement decision; where required, the cooperative will receive at least one defined revision window before the final decision. Across four active sites, the activity will review at least four CRA Business Plans. The activity will be executed by a specialized executing entity selected by UNIDO, coordinated through the PMU, with site-level organization led by the Regional Coordinator and technical inputs mobilized through UNIDO technical team and contracted expertise as required. Technical endorsement will remain distinct from grant agreement signature and disbursement decisions under Annex B. The activity will result in technically screened and validated CRA Business Plans that are either cleared for conversion into Demo-Farming Grant Implementation Packages, conditionally cleared subject to revisions, returned for further development, or rejected where they do not meet the requirements detailed in Annex B.

D3.1.3 Endorsed CRA Business Plan enacted as CRA Demo-Farming Implementation Plans implemented and results documented for replication

This deliverable will translate endorsed CRA Business Plans into field application under real farming conditions. Each technically validated and endorsed CRA Business Plan will be enacted as an ADAPT to FARM Demo-Farming Implementation, with identified plots and production clusters, implementation calendar, eligible activities and costs, technical accompaniment needs, safeguards measures, fiduciary and reporting requirements, field monitoring arrangements and documentation responsibilities. Grant-supported demo farming will finance only validated CRA Business Plans that demonstrate a clear response to observed climate impacts and identified projected climate risks. It will not finance general productivity improvements, routine input support or business-as-usual cooperative development, consistent with Annex B.

As a minimum delivery basis, the output will support at least four demo-farming packages across the four active sites, reaching approximately 2,000 direct demo-farming participants. Wider cooperative members will be engaged through field learning events, cooperative results sessions and internal dissemination, so that the evidence generated through demo farming can inform internal replication within the cooperative.

A3.1.3.1 – CRA Demo-Farming Implementation Plans finalized and demo-farming cycles implemented with field accompaniment

This activity will prepare field implementation in each site on the basis of the endorsed CRA Business Plan. It will finalize the participating farmers, plots or production clusters, implementation schedule, input and service package, technical accompaniment plan, field monitoring baseline, and cooperative responsibilities for delivery and reporting.

Field preparation and implementation arrangements.

This will include one field preparation meeting per site, one participant orientation for demo-farming participants, plot confirmation, implementation scheduling, and completion of the corresponding implementation agreement or

grant arrangement. By completion of this preparatory step, each site will have one approved and implementation-ready demo-farming package.

Demo-farming implementation and field accompaniment

The activity will then finance and support the practical application of the endorsed CRA practices under real farming conditions. In each site, the participating cooperative and its demo-farming cohort will implement the agreed package on the selected plots or production clusters, applying the climate-resilient practices and measures defined in the endorsed business plan.

Each cooperative will implement one demo-farming package, with up to two production cycles supported where agronomically feasible within the implementation period. During each active cycle, the project will organize monthly field accompaniment visits, combined with four formal field review points per cycle to assess implementation progress, technical performance, and operational constraints. Delivery will be undertaken by the participating cooperative under project supervision, with close technical accompaniment from the responsible project delivery team and contracted service providers where required. The activity will generate direct on-farm adaptation benefits, practical implementation experience for approximately 500 participating farmers, and verified field evidence on the performance of the selected CRA interventions.

A3.1.3.2 – Conduct field learning events, document results, and prepare cooperative replication notes

This activity will consolidate the practical learning generated through demo-farming and prepare it for internal cooperative replication. In each site, the project will organize one structured end-of-cycle field learning event and one cooperative results and replication session to review what was implemented, what adaptation benefits were observed, what implementation constraints emerged, and what adjustments are required for wider uptake. It will also document participant completion, field participation, implementation performance, and key lessons from each site. This will generate the evidence required for output-level reporting and will provide each cooperative with a concise replication note identifying the conditions under which the demonstrated CRA experience can be extended to additional members or plots. At minimum, the result will be four site-level demo-farming results records and four cooperative replication notes.

Project Component 3 [C3 - INVEST]		Project Output Track: SCALE
Outcome 3 [OC3 - CLIMATE-RESILIENT AGRICULTURE INVESTMENT SYSTEM]		
Output 3.2 [OP 3.2 - SCALE]		
ADAPT to Invest programme implemented with rural finance actors and existing concessional rural finance programmes, enabling them to screen, assess and align capital to CRA opportunities through CRA screening criteria, climate risk assessment approaches, and adaptation-focused appraisal processes.		
Indicative Budget	USD 540,000	
Executing Entity	UNIDO	
Identification status	Fully identified	
Key Result: current or prospective concessional finance streams relevant to small and micro cooperatives are equipped with CRA adaptation investment screening checklists, eligibility criteria and evidence requirements by MTR, and completed CRA Demo Farming models are technically validated and converted into scale-up decision and adaptation finance alignment packages by project completion. Dissemination at regional level is supported for wider FVVC uptake.		
Direct Beneficiaries (DB): 1,500		
i. Province/LGU/Barangay officials and technical staff ' total calculation: 200 Estimated at about 50 direct technical and service actors per site, including LGU-linked agricultural staff, local technical facilitators, and site-level support actors who will be directly engaged in the ADAPT to INVEST programme.		
ii. Farmers' Cooperatives and Associations (FCA) representatives and members ' total calculation: 100 Cooperative leaders, managers, and operational staff: 100 An estimated 25 participants per project site will act as key adopters of concessional finance alignment under the ADAPT to INVEST programme and support the dissemination of evidence generated through the ADAPT to FARM programme.		
iii. Local universities and colleges representatives' total calculation: 400 An estimated 100 participants per project site, including local researchers working on climate-resilient agricultural		

practices and gender-sensitive assessments of climate impacts and risks, will engage in and benefit from scaling-up activities to disseminate evidence generated by the ADAPT to FARM programme.

iv. CSO/CBO/NGOs representatives' total calculation: 400

An estimated 100 participants per project site, including local leaders working on climate-resilient agricultural practices and/or structural development barriers that amplify the effects of climate impacts, will engage in and benefit from scaling-up activities to disseminate evidence generated by the ADAPT to FARM programme.

v. Other FVVC and enabling-system actors: 400

An estimated 100 participants per project site, including representatives of local credit cooperatives and rural development banks, will participate in the activities targeting concessional finance alignment.

Indirect Beneficiaries: 8,000²⁹

Delivery approach

Output 3.2 will deliver ADAPT to Invest by converting the CRA Business Plans and Demo-Farming evidence generated under Output 3.1 into technical validation products, replication decision packages and finance-alignment materials. Delivery will begin with the mapping of concessional rural finance streams, rural and cooperative banking windows, public financing programmes and other mechanisms that may support cooperative-level CRA replication. The mapping will review institutional mandates, eligible borrower profiles, eligible investment categories, documentation requirements, geographic coverage and indicative financing terms. On this basis, the project will establish a finance engagement platform of approximately ten participating finance actors and programmes to develop and validate a CRA adaptation investment screening framework. The framework will define the minimum criteria and evidence required for CRA investments emerging from SMCs to be treated as adaptation-oriented investments rather than general agricultural lending or productivity support, including the climate risk addressed, adaptation benefit logic, cooperative readiness, technical feasibility, safeguards and inclusion considerations, and financing-fit criteria.

Once Demo-Farming evidence becomes available, the project will conduct a structured technical validation process for each cooperative-level CRA model, drawing on field implementation records, monitoring data, cooperative reporting and end-of-cycle results reviews. Each model will be assessed against the climate risk identified in its CRA Business Plan, demonstrated performance under local crop, soil, water and labour conditions, implementation requirements, cooperative manageability, safeguards and inclusion compliance, and suitability for responsible replication. The validation process will classify models according to replication readiness and identify any refinements, safeguards measures or operational conditions required before wider uptake.

Validated models will then be converted into four FVVC-specific scale-up decision packages and corresponding finance-alignment materials, reflecting the CRA models demonstrated across the project sites. Each package will present the adaptation rationale, technical model description, demonstrated results, implementation requirements, indicative cost structure, cooperative management implications, safeguards and inclusion considerations, replication conditions, relevant finance entry points, remaining information needs, and technical and financing conditions for future consideration. The packages will define the conditions under which each model may be replicated within the participating cooperative, adopted by the corresponding LGU, or considered by other cooperatives and LGUs in the same region facing comparable climate risks, crop systems, agro-ecological conditions and value-chain constraints. They will be used in finance roundtables, bilateral screening or appraisal dialogue sessions, and cooperative-facing feedback clinics, and disseminated as finalized replication and investment referral notes to participating cooperatives, LGUs, MinDA, ADAPT Centre stakeholders, rural finance actors, cooperative banks, public finance actors and other relevant partners. banks, public finance actors and other relevant partners.

D3.2.1 – CRA adaptation investment screening framework established with participating rural finance actors and concessional finance programmes

This deliverable will establish the finance-entry architecture for the output by identifying the relevant financing instruments through which validated climate-resilient agriculture investments may later be considered for replication or scale-up. It will cover the mapping of relevant current or prospective concessional rural finance streams, rural

²⁹ Indirect beneficiaries comprise the wider membership base and associated farming households of the four selected cooperative systems not directly participating in Output 3.2 activities, but expected to benefit from internal replication of validated CRA models, stronger cooperative investment readiness, and improved future alignment with concessional and rural finance pathways. Additional indirect beneficiaries include other local cooperatives, producer groups, LGU-linked technical actors, ADAPT Centre-linked users, and rural finance institutions that may later use or benefit from the validation products, screening tools, and adaptation finance-alignment materials generated under the output.

and cooperative banking windows, public financing programmes, and other financing mechanisms relevant to SMCs operating in FVVCs in Mindanao.

On that basis, the project will develop a common CRA adaptation investment screening framework with participating finance actors. The framework will define the minimum screening logic to be applied to climate-resilient agriculture opportunities emerging from Output 3.1, including climate rationale, adaptation benefit, eligible investment types, cooperative readiness, basic technical feasibility, safeguard and inclusion considerations, and evidence requirements. This will ensure that the project does not conclude with isolated farm-level demonstrations, but with a practical set of screening and appraisal entry points that finance actors can use in subsequent investment discussions.

The deliverable will be developed with a core group of approximately 10 participating finance actors and finance programmes, including relevant national development finance institutions, selected rural and cooperative banking actors, and public or concessional financing facilities with potential relevance to SMCs. By the MTE, these actors will have access to a common package of screening criteria, indicative eligibility conditions, and evidence requirements for CRA investments.

A3.2.1.1 – Finance-stream mapping, engagement platform and CRA adaptation investment screening framework established

This activity will identify the current or prospective finance streams most relevant to climate-resilient agriculture investment by SMCs in the project sites. It will review the mandates, products, eligibility conditions, borrower profiles, geographic reach, investment types, and indicative financing terms of participating institutions and programmes, with particular attention to cooperative-level replication of validated CRA models.

Finance-stream mapping and engagement platform

The activity will review the mandates, products, eligibility conditions, borrower profiles, geographic reach, investment types, and indicative financing terms of participating institutions and programmes, with particular attention to cooperative-level replication of validated CRA models.

The activity will include desk review, bilateral scoping discussions, and structured outreach to finance actors. It will result in the establishment of a core finance-engagement platform of approximately 10 participating institutions or programmes, together with one consolidated finance-stream mapping note and one contact and engagement matrix. This work will be completed during the first phase of Output 3.2 so that the financing is mapped before the project reaches post-demo validation.

CRA adaptation investment screening framework

This activity will also translate the finance mapping into an operational screening package for use by participating finance actors. The package will define the minimum criteria and evidence that a CRA opportunity should satisfy to enter informed financing discussion. It will cover climate rationale and adaptation benefit logic, eligible CRA investment categories, cooperative readiness conditions, minimum technical feasibility considerations, social and environmental safeguards screening, and basic financing-fit parameters.

The activity will be delivered through one inception technical workshop, up to 10 bilateral technical review sessions with participating finance actors, and one framework validation workshop. These sessions will be used to adapt the framework to the practical requirements of different finance actors without diluting the adaptation logic of the project. By the MTE, the output will have produced one consolidated CRA adaptation investment screening framework, together with finance mechanism specific annexes or notes where differentiation is needed.

D3.2.2 – CRA Demo-Farming models technically validated and converted into scale-up decision packages

This deliverable will convert the verified field evidence generated under Output 3.1 into model-specific technical validation and scale-up decision products. Each completed CRA Demo-Farming model will be reviewed against the climate risks identified in the original CRA Business Plan, the technical soundness of the selected CRA response, implementation performance under field conditions, operational manageability for the cooperative, compliance with safeguard and inclusion conditions, and the practical requirements for replication.

The main purpose of this deliverable is to distinguish between demonstration value and replication value. Not all completed models will necessarily be equally suitable for wider uptake. The validation process will therefore classify each model according to its scale-up readiness, identify the refinements still required where relevant, and define the technical and operational conditions under which the model could be replicated to additional plots, members,

or cooperatives. Given the design of Output 3.1, this deliverable is expected to generate five model-specific technical validation and scale-up decision packages, corresponding to the five cooperative-level CRA Demo-Farming models implemented across the project sites.

A3.2.2.1 – Conduct technical validation of completed CRA Demo-Farming models using verified field evidence and prepare model-specific scale-up decision packages

This activity will review the field results of the Demo-Farming models completed under Output 3.1 and assess whether they have demonstrated sufficient technical and adaptation performance to support replication decisions as Certified Adaptation Benefits

Technical validation of completed CRA Demo-Farming models

The validation will examine whether the demonstrated CRA measures addressed the climate risks identified in the original CRA Business Plans, whether they were technically feasible under field conditions, whether they were manageable for participating farmers and cooperatives, and whether they performed in a manner consistent with the intended adaptation benefit.

The activity will use the verified documentation from Output 3.1, including field implementation records, monitoring data, cooperative reporting, and end-of-cycle results reviews. It will include one structured technical validation exercise per cooperative model, supported by site-level evidence review and, where needed, targeted follow-up verification. The activity will result in five model validation assessments, one for each cooperative-level demo-farming model.

This activity will convert the validation findings into structured decision packages for each completed CRA Demo-Farming model. Each package will include the validated adaptation rationale, technical model description, implementation requirements, indicative cost structure, cooperative management implications, safeguard and inclusion observations, and the conditions required for replication.

A central function of the activity will be to classify each model according to replication readiness. Each model will be categorized as: ready for replication, requiring refinement before replication, or not recommended for scale-up under current conditions. This classification will ensure that scale-up discussions remain disciplined and evidence-based. The activity will generate model-specific scale-up decision packages and will provide the technical basis for the finance-alignment work that follows.

D3.2.3 – Finance-alignment and replication packages finalized and used in structured investment dialogue

This deliverable will connect the validated CRA models to the finance mechanisms identified under D3.2.1. For each technically validated model, the project will prepare a finance-alignment package that translates field results into the format needed for screening, early appraisal, and structured investment discussion with participating finance actors.

The package will include the validated adaptation rationale, technical description of the CRA model, cooperative delivery profile, indicative cost structure, scale-up conditions, safeguards and inclusion considerations, and the finance-stream-specific screening issues most relevant to the model. It will also include a concise replication note for cooperative and LGU use, so that the evidence can inform future planning even where immediate financing does not follow.

The finalized packages will then be used in a structured dialogue process involving participating cooperatives, finance actors, UNIDO, MinDA, relevant LGUs, and other institutional partners. This will not constitute loan approval or grant award. Rather, it will create a practical basis for post-project screening, follow-on discussion, and possible future financing decisions grounded in validated adaptation evidence rather than assumptions

A3.2.3.1 – Prepare finance-alignment packages and conduct structured screening and appraisal dialogue with participating finance actors

This activity will connect the validated CRA models to the screening framework established earlier in the output. For each validated model, the project will prepare a finance-alignment package that presents the model in a form usable for institutional screening and early-stage appraisal dialogue. The package will identify the most relevant financing options, summarize the evidence available, indicate any remaining information gaps, and clarify the conditions under which a participating finance actor could consider the model in future programming or screening.

The activity will be delivered through two finance roundtables, up to 10 bilateral screening or appraisal dialogue sessions, and one cooperative-facing feedback clinic per participating site. This will allow finance actors to engage

directly with validated evidence while giving cooperatives clear feedback on how their models are viewed from a financing perspective. The result will be a set of model-specific finance-alignment packages and documented screening feedback from participating institutions.

A3.2.3.2 – Disseminate finalized packages and prepare next-step replication and investment referral notes

This activity will consolidate the final outputs of Output 3.2 and place them in the hands of the actors most likely to use them after project completion. It will prepare the final package set for dissemination to participating cooperatives, LGUs, MinDA, ADAPT Centre stakeholders, rural finance actors, cooperative banks, public finance actors, and other relevant institutional partners.

The activity will include one final dissemination and validation workshop at Mindanao level, supported by circulation of model-specific packages and concise next-step notes. For each validated model, the project will produce one replication and investment referral note summarizing the model classification, recommended next steps, principal technical and financing conditions, and the most relevant institutional entry points for follow-up. In this way, the output will conclude not only with technical validation, but with practical post-project decision support for replication and financing dialogue.

B. Economic, social and environmental benefits

Economic benefits

The economic benefits are expected to arise primarily from addressing barriers A3, A4, A5, and A6. These barriers are directly linked to the current inability of smallholder farmers and SMCs to retain value, reduce losses, access to affordable finance, and invest in climate-resilient production and post-harvest systems. At the household level, the proposed adaptation strategy is expected to improve income stability by reducing avoidable losses and increasing access to climate-resilient livelihood opportunities. Many farmers are exposed to climate risks not only during production, but also after harvest, when heavy rainfall, extreme heat, delayed transport, poor storage, weak aggregation and limited processing capacity reduce quality and value. By improving access to shared post-harvest services, the design is expected to reduce distress selling and create more options for farmers and cooperative members to manage harvest timing, quality, storage and market engagement.

At the farm level, CRA demo farming and CRA business planning are expected to support more resilient production decisions. The supported CRA practices that include soil conservation, water-efficient irrigation, mulching, rainwater harvesting, composting, biofertilizer use, crop diversification and IPM, will reduce climate induced production losses, reduce dependence on poorly targeted or costly inputs, and strengthen farmers' ability to manage climate variability without increasing long-term vulnerability. At the cooperative and value-chain level, ADAPT Centres are expected to address a critical post-harvest adaptation gap by supporting aggregation, storage, processing, quality control, and value addition. The project consultations confirmed that agricultural productivity has been constrained by inadequate infrastructure, limited access to post-harvest and transport facilities, uneven cold storage distribution, traditional sun-drying, contamination, quality degradation and inadequate water supply, all of which contribute to significant food losses and reduced product value.

This economic benefit is also linked to circular economy opportunities. Surplus, damaged or lower-grade produce that would otherwise be lost may be redirected into dried, milled, fermented, pickled, frozen or otherwise preserved products, where technically and economically feasible. Crop residues and processing by-products may also be converted into compost, soil enhancers, biofertilizers or other productive uses. These measures are expected to reduce waste, extend shelf life, improve value retention, and support cooperative-level enterprise opportunities

Social benefits, including gender and vulnerable groups

The social benefits are expected to arise primarily from addressing barriers A1, A2, A4 and A5. These barriers affect the ability of vulnerable groups to participate in adaptation planning, access technical knowledge, benefit from infrastructure and services, and influence decisions that affect their livelihoods. At the household level, the adaptation strategy is expected to improve access to knowledge, services, access to finance, and livelihood opportunities. These benefits are particularly relevant for households that are highly dependent on climate-sensitive production, have limited savings, rely on trader credit, or face repeated climate disruptions. Improved access to adaptation services can reduce the need for short-term coping strategies that deepen vulnerability, including distress sales, high-interest borrowing, or repeated reinvestment in climate-sensitive practices without technical

support.

At the community level, the LEAD component is designed to strengthen locally led adaptation capacity and leadership. By improving the ability of LGUs, cooperatives, farmers' organizations and local value-chain actors to assess climate risks and define adaptation priorities, the project is expected to improve local ownership and reduce fragmented, reactive or supply-driven responses. This is particularly important in project sites where hazards are locally specific: severe soil erosion in upland vegetable systems, water stress in drought-prone production areas, flooding and landslide risks in lowland and mountainous areas, and pest pressure linked to weather reversals. At the cooperative and value-chain level, social benefits are expected to emerge through skills development, improved cooperative services, value-addition opportunities, and market engagement. The design recognizes that vulnerable groups do not automatically benefit from infrastructure or training. Women, Indigenous Peoples, youth, persons with disabilities and poorer cooperative members may face barriers related to time availability, mobility, literacy, land access, language, cultural norms, cooperative power relations or control over productive assets. For this reason, in line with the project ESMP and GAP, inclusion will be operationalized through beneficiary selection, consultation processes, training schedules, facility access rules, demo-farming selection, cooperative service protocols, grievance redress, and monitoring of who accesses and benefits from project-supported services.

Gender considerations are expected to be integrated beyond participation targets. Women are relevant not only as training participants, but also as value-chain actors in household resilience, processing, quality control, cooperative enterprise development, financial literacy, marketing and local adaptation planning. Youth engagement can be strengthened through technical, digital, enterprise and market-oriented roles in climate-resilient fruits and vegetables value chains. For Indigenous Peoples, engagement should be culturally appropriate, respect Indigenous Knowledge Systems and Practices, and apply Free, Prior and Informed Consent where required.

Environmental benefits

The environmental benefits are expected to arise primarily from addressing barriers A3, A4 and A6, particularly where infrastructure, farm-level demonstrations, technical training and scale-up packages promote practices that reduce pressure on soil, water, biodiversity and ecosystem services. At the farm level, the adaptation strategy incorporates practices such as Sloping Agricultural Land Technology (SALT), contour-based farming, reduced tillage where appropriate, cover crops, crop rotation, agroforestry, composting, biofertilizer use, water-efficient irrigation, mulching, rainwater harvesting and crop-specific Integrated Pest Management (IPM). These measures are expected to improve soil health, reduce erosion, increase water-use efficiency, reduce excessive reliance on synthetic inputs, and lower the risk of environmentally harmful responses to climate stress. The CRVA specifically identifies sustainable land management, IPM, circular economy approaches, waste valorization and riparian buffers as relevant adaptation options for the project context.

At the household and community level, environmental benefits are expected to translate into more stable production conditions, reduced exposure to climate-related losses, improved resource efficiency and reduced health and environmental risks associated with excessive chemical use or unmanaged organic waste. This is important because the CRVA identifies maladaptation cases where increased chemical use in response to climate-driven pests resulted in maximum residue limit concerns and market losses, and where intensive tillage in steep upland systems contributed to severe soil degradation. At the value-chain level, ADAPT Centres are expected to support circular economy and waste-reduction industrial approaches. Processing, drying, storage and value addition can reduce unmanaged organic waste and climate-related spoilage, while composting and by-product valorization can close nutrient loops and support soil health. These environmental benefits are directly linked to economic and social resilience, since reduced waste, improved soil condition and better water management can support income stability and food security for vulnerable households.

C. Cost-effectiveness of the project

Cost-effectiveness in ADAPT Mindanao is assessed as the extent to which the proposed investment can reduce climate risk, avoid future losses, and strengthen resilience in the FVVC at lower lifecycle cost than plausible alternatives, while generating durable institutional, productive, and market effects. A single project-wide cost-benefit ratio would not be methodologically robust for this proposal because the project combines locally led planning, shared post-harvest infrastructure, and finance-readiness functions across heterogeneous sites and purposefully

tailors support to different commodities, risk profiles, and local capacities. The assessment therefore relies on five complementary tests: targeting efficiency; functional efficiency of the integrated intervention package; avoided losses and avoidance of maladaptation; sustainability and lifecycle efficiency; and incremental efficiency through leveraging existing systems and prior public investment. This approach is grounded in the project's evidence base, including the CRVA, which combined biophysical and participatory methods, and a direct beneficiary survey of 1,143 respondents.

Table 3 – Cost-effectiveness comparative analysis

Alternative approach	Apparent advantage	Main limitation	Why ADAPT Mindanao is more cost-effective?
Business-as-usual continuation of existing programmes and services	Lowest immediate transaction cost because it relies on ongoing institutions and programmes	Leaves critical adaptation gaps unresolved, including weak sector-specific climate planning, limited post-harvest resilience, insufficient climate information relevance for fruits and vegetables, and weak adaptation investment readiness.	The project does not replace baseline systems; it adds the adaptation increment needed to make existing systems effective for the target value chains and sites.
Infrastructure-only approach	Produces visible assets quickly	Risks under-utilization, weak operations and maintenance, and lower resilience returns if governance, skills, business planning, and market linkage constraints remain unresolved.	The project combines shared infrastructure with training, market engagement, local coordination, and finance-readiness, increasing use and reducing failure risk.
Capacity-building-only / planning-only approach	Lower upfront capital cost	Does not materially reduce physical exposure to post-harvest loss, storage failure, handling damage, and climate-related disruptions.	The project converts planning and training into tangible resilience gains through shared facilities and validated on-farm adaptation models.
Site-by-site stand-alone investments	Excessive degree of tailoring	Duplicates transaction costs, reduces economies of scope, and weakens opportunities for common tools, shared learning, and structured replication.	The project combines site-specific tailoring with shared methodologies, common learning tracks, and scalable packages, improving the cost-to-result ratio.
Proposed integrated design	Mutually reinforcing adaptation functions	Requires stronger coordination and more disciplined implementation management.	Most cost-effective because it addresses mutually reinforcing barriers together while leveraging existing public systems, assets, services, and prior investments.

The first test is targeting efficiency. The project deliberately focuses on the most vulnerable actors within a subset, i.e. FVVC, of a highly vulnerable sector (AFFS). In addition, it calibrates the project allocation according to site-specific assessments of exposure, adaptive capacity, sensitivity and frequency/intensity of climate hazards. For instance, the CRVA documents very severe soil loss in Miarayon, Bukidnon, exceeding 300 tons per hectare per year; 84 per cent El Niño-related water-stress exposure in Sto. Tomas, Davao del Norte; persistent flood and landslide exposure in Compostela, Davao de Oro, where annual losses from typhoons and earthquakes are estimated at PHP 167 million; and weather-reversal impacts on perennial crops in Midsayap. It further finds that farms, crops, and livelihoods are reported as prone to climate shocks and hazards by 94 per cent of surveyed respondents, while social vulnerability is intensified by ageing farmers, weak institutional support, and dependence on high-interest credit. By using this evidence to direct resources to documented hotspots and to the most climate-constrained points in the FVVC, the project improves the allocation efficiency of limited adaptation finance.

The second test is the functional efficiency of the integrated package. LEAD, PROCESS and INVEST address interdependent adaptation barriers across the same four FVVC geographies, avoiding the lower returns of stand-alone planning, infrastructure, training or finance-readiness support. LEAD strengthens local adaptation capacity and LCCAP-linked FVVC Adaptation Packages; PROCESS converts this local readiness into ADAPT to Market support and four climate-resilient ADAPT Centres; and INVEST links CRA Business Planning, demo farming, technical validation and finance alignment. This integrated sequence is cost-effective because shared infrastructure is more likely to be used, maintained, and replicated when it is supported by local planning, user readiness, market engagement, demonstrated CRA evidence and finance-screening tools. An infrastructure-only approach would leave unresolved the main bottlenecks identified during project preparation, including weak post-harvest systems, limited operational and market-readiness capacities, low cooperative investment preparation, and dependence on

high-cost or debt-inducing finance.

The third test is avoidance of losses and of maladaptation. The economic case for adaptation in the target value chains is strengthened by the high cost of current losses. Recent Philippine evidence shows that freshly harvested tomatoes from Bukidnon shipped to Manila incurred post-harvest losses of 24%, equivalent to approximately 41,125 tons and close to PHP 180 million in lost value. The same study also showed that mango routes with better practices performed materially better than others, with one Guimaras chain observing good agricultural practices recording only 11% losses in shipments to Manila³⁰. These findings are highly relevant because ADAPT Mindanao directly targets handling, aggregation, storage, processing, and market-linkage constraints where avoidable losses accumulate. The proposal is also cost-effective because it shifts farmers away from maladaptive coping responses that carry economic and environmental costs. The CRVA documents that in Sto. Tomas, farmers responded to climate-driven pest pressure by intensifying chemical use, which increased production costs, contributed to residue exceedances, reduced market access, and reinforced vulnerability. In this sense, the project generates value not only by increasing retained output but also by supporting technically grounded adaptation practices that avoid lock-in to higher-cost and environmentally harmful production patterns.

The fourth test is sustainability and lifecycle efficiency. ADAPT Mindanao is cost-effective because its principal investments are designed to generate repeated adaptation services beyond the period of grant expenditure, thereby reducing the effective cost per year of use, per beneficiary reached, and per adaptation service delivered. The project does not treat cost-effectiveness as the lowest upfront cost, but as the capacity to convert one-time adaptation finance into durable assets, institutional systems, operating models, and technical evidence that remain useful over time. The fifth test is incremental efficiency through leveraging and improving existing systems, services, and assets. This is a central feature of the project's cost-effectiveness. Under LEAD, the proposal does not create a parallel planning system; it builds on the existing LCCAP/eLCCAP architecture and strengthens it by adding a sector-specific adaptation focus for the FVVC. This is consistent with the Climate Change Commission's CORE programme, which is explicitly designed to strengthen LGU planning capacity, improve the technical basis of eLCCAPs, and mainstream climate change into national, sectoral, and local development plans and programmes. The project also builds on the Department of Agriculture's CRVA methodology. The official AMIA CRVA platform states that CRVA is intended to identify which communities are most vulnerable to climate change effects so that strategic and effective investments and interventions can be made to help them adapt. Under climate information, the project can extend the value of an existing PAGASA service architecture rather than finance a new one: PAGASA's Climate Impact Assessment for Philippine Agriculture has been issued regularly since the mid-1980s, but its operational crop focus remains largely dedicated to rice and corn. Extending the practical use of climate-risk-informed decision support to fruits and vegetables is therefore an efficient adaptation increment rather than a duplicative approach.

D. Consistency with national or sub-national sustainable development strategies

ADAPT Mindanao is consistent with the Philippines' national and sub-national sustainable development and climate adaptation framework by translating national priorities into locally led adaptation action in Mindanao's fruits and vegetables value chains. It strengthens the existing policy and planning architecture through which national adaptation priorities are expected to reach local implementation: from the National Adaptation Plan, Philippine Development Plan, Mindanao Agenda and national climate policy instruments, down to LGU planning and investment, including LCCAPs, CLUPs, CDPs, LDIPs and AIPs. This national-to-local translation function is central to the project design.

Alignment with the National Adaptation Plan 2023–2050

ADAPT Mindanao is directly aligned with the National Adaptation Plan 2023–2050 by operationalizing its Agriculture, Fisheries and Food Security priorities, its local implementation approach, and its adaptation financing agenda in Mindanao's climate-sensitive fruits and vegetables value chains. The project responds to the NAP's priority climatic impact-drivers for agricultural systems, particularly increased temperature and drought, extreme

³⁰ Southeast Asian Regional Center for Graduate Study and Research in Agriculture (SEARCA). 2022. "Postharvest Losses in PH Onion, Tomato and Mango Value Chains Bared." 16 March 2022. Reporting on the Asian Development Bank-funded study Analysis of Fruit and Vegetable Value Chains in the Philippines, conducted by SEARCA and presented at the SEARCA–SGV national policy forum. Available at: <https://www.searca.org/press/postharvest-losses-ph-onion-tomato-mango-value-chains-bared>

precipitation, and extreme wind and tropical cyclones, by translating climate-risk evidence into LCCAP-linked FVVC Adaptation Packages and a Mindanao FVVC Adaptation Action Plan for 2030–2050 under Component 1. Component 2 advances the NAP priorities on resilient infrastructure, food security, livelihoods and climate-resilient industries through shared service infrastructure for aggregation, storage, processing, value addition and post-harvest risk reduction. Component 3 directly supports the NAP’s adaptation financing enabler through the ADAPT to Farm Adaptation Benefits Grant Mechanism, which uses CRA Business Plans, results-based demo farming, verification of adaptation benefits, and finance-alignment packages to generate investment-ready evidence for future replication. This approach responds to the NAP’s emphasis on strengthening local capacity to access adaptation finance, including the People’s Survival Fund, and on using innovative financing instruments such as Adaptation Benefits Mechanisms to improve the bankability of adaptation actions.

Alignment with Local Climate Change Action Plans and LGU planning systems

The project uses LCCAPs as a key local entry point for adaptation delivery. In the Philippines, LCCAPs provide a formal basis for LGUs to identify climate risks and define local climate action priorities. However, for climate-vulnerable agricultural municipalities, local climate plans are often broad, multi-sectoral instruments and may not always translate climate risk information into value-chain-specific, implementation-ready adaptation measures for fruits and vegetables. ADAPT Mindanao addresses this gap by helping participating LGUs and local actors move from climate planning to local adaptation delivery. Through the LEAD to Adapt Programme, existing project-site governance and leadership arrangements will be enabled to define, endorse and operationalize LCCAP-linked FVVC adaptation packages. These packages will connect climate risks affecting fruits and vegetables producers and cooperatives with practical adaptation responses, including post-harvest shared service infrastructure, climate-resilient value addition, CRA Demo Farming and finance-readiness support. The project also strengthens the link between LCCAPs and other local planning and investment instruments. Project-supported adaptation priorities are expected to inform, where relevant, CLUPs, CDPs, LDIPs, AIPs, agriculture and enterprise development plans, DRRM plans and other local instruments used to programme and finance local action. This is important because adaptation becomes implementable only when climate priorities are connected to mandates, budgets, local investment programming and accountable delivery arrangements.

Alignment with the Philippine Development Plan 2023–2028 and AmBisyon Natin 2040

The project supports AmBisyon Natin 2040 and the Philippine Development Plan 2023–2028 by contributing to inclusive growth, resilience, poverty reduction and improved livelihood security in vulnerable agricultural communities. The project focuses on smallholder farmers, small and micro cooperatives, farmers’ associations and other local value-chain actors whose livelihoods are highly exposed to climate variability and climate shocks. By strengthening adaptive capacity, supporting climate-resilient post-harvest infrastructure, improving cooperative value addition and preparing local actors for adaptation finance, the project contributes to a more resilient and inclusive rural economy. This is consistent with the national development objective of building a resilient society and increasing the growth potential of sectors and communities that remain vulnerable to poverty, climate shocks and uneven access to economic opportunities.

Alignment with the Mindanao Agenda 2023–2028

The project is strongly aligned with the Mindanao Agenda 2023–2028, particularly its priorities on agricultural value chains, inclusive economic growth, resilient infrastructure, local governance, social services and peace-responsive development. Mindanao’s FVVCs are central to rural livelihoods and local economic development, but their resilience is constrained by climate exposure, weak post-harvest systems, limited local adaptation capacity and low finance readiness. MinDA’s role as executing partner strengthens the project’s consistency with the Mindanao Agenda. Component 1 supports MinDA’s function in harmonizing local and regional development priorities by consolidating local adaptation evidence into a Mindanao FVVC Adaptation Action Plan for 2030–2050. This creates a bridge between municipal-level LCCAP-linked adaptation packages and longer-term regional planning, coordination and investment prioritization for Mindanao’s fruits and vegetables agro-industry.

E. Alignment with national technical standards

ADAPT Mindanao has been designed to meet applicable Philippine national technical standards and to comply with the Environmental and Social Policy of the Adaptation Fund, the Adaptation Fund Gender Policy, UNIDO Environmental and Social Safeguards Policy and Procedures, and relevant national and local laws and regulations. As established in the ESMP and the dedicated activities for compliance, (compliance with technical standards is integrated into the project cycle through site selection, detailed design, environmental and social screening, permitting, procurement, grant approval, construction or installation supervision, commissioning, operation and monitoring. Table 4 presented below set the principal national technical standards and regulatory requirements applicable to ADAPT Mindanao.

Table 4 – Application laws, regulations, policies and standards

Item	Laws, Regulations, Standards	Requirements Applicable to the Project
Environmental Impact Assessment	• PD 1151 (1977): Philippine Environmental Policy • PD 1152 (1977): Philippine Environment Code • PD 1586 (1978): Establishing an Environmental Impact Statement System, including Other Environmental Management Related Measures and for Other Purposes and its IRR (DAO 2003-30) ◦ DAO 2017-15: Guidelines on Public Participation under the Philippine Environmental Impact Statement (EIS) System ◦ EMB MC 2014-005: Revised Guidelines for Coverage Screening and Standardized Requirements under the Philippine EIS System ◦ EMB MC 2019-003: Updated Guidelines in the processing and issuance of ECC for Category B Projects • PP 2146 (1981): Proclaiming Certain Areas and Types of Projects as Environmentally Critical and within the Scope of the Environmental Impact Statement System established under Presidential Decree No. 1586	• Project categorization under the Philippine Environmental Impact Statement (EIS) System or PEISS (i.e., Category A, B, C, or D) • Project site screening for proximity to environmentally critical areas (ECAs) • Conduct of EIA/ESIA and preparation of EMP/ESMP and EMoP/ESMoP • Compliance with social preparation, public consultation, and stakeholder engagement requirements • Securing Environmental Compliance Certificate (ECC) or Certificate of Non-Coverage (CNC) • Compliance with ECC conditions
Biodiversity Conservation and Sustainable Natural Resource Management	<u>Protected Areas</u> • RA 7586 (1992): National Integrated Protected Areas System (NIPAS) Act • RA 11038 (2018): Expanded National Integrated Protected Areas System (E-NIPAS) and its IRR (DAO 2019-05)	• Project site screening for proximity to NIPAS protected areas • If within NIPAS protected area: securing of clearance from Protected Area Management Board (PAMB)
	<u>Flora, Fauna, Biodiversity</u> • PD 1559 (1978): Revised Forestry Code of the Philippines ◦ DMO 2012-02: Uniform Replacement Ratio for Cut or Relocated Trees • RA 8435 (1997): Agriculture and Fisheries Modernization Act of 1997 • RA 9147 (2001): Wildlife Resources Conservation and Protection Act of 2001 ◦ DAO 2026-20: Updated National List of Threatened Philippine Plants and Their Categories ◦ DAO 2019-09: Updated National List of Threatened Philippine Fauna and Their Categories	• Conduct of biodiversity assessment during EIA/ESIA preparation • Securing Tree Cutting Permit (TCP) from the DENR and host LGU before cutting, removal, or relocation of trees; • Compliance with tree replacement requirements
Pollution Prevention and Abatement	• PD 984 (1976): National Pollution Control Decree of 1976 ◦ DAO 2014-02: Revised Guidelines for Pollution Control Officer Accreditation ◦ EMB MC 2019-004: Advanced Training Modules for Pollution Control Officers (PCOs)	• Designation of DENR-accredited PCO
	<u>Water / Wastewater</u> • PD 1067 (1976): The Water Code of the Philippines and its IRR	• Securing water permit from National Water Resources Board (NWRB), as applicable

	- o NWRB Resolution No. 15-0921: Further Amending the Policy Guidelines on the Processing and Issuance of Water Permits and Conditional Water Permits - o NWRB Resolution No. 26-0817: Policy Defining the ECC/CNC Requirements for Water Permit Application • RA 9275 (2004): Philippine Clean Water Act of 2004 and its IRR (DAO 2005-10) - o DAO 2016-08: Water Quality Guidelines and General Effluent Standards of 2016 - o DAO 2021-19: Updated Water Quality Guidelines (WQG) and General Effluent Standards (GES) for Selected Parameters	• Compliance with required water easement • Preparation and implementation of Wastewater Management Plan, as applicable • Compliance with general effluent standards during facility construction and implementation
	Air and Noise • RA 8749 (1999): Philippine Clean Air Act of 1999 and its IRR (DAO 2000-81) - o DAO 2004-26: Amending Rule XIX of DENR Administrative Order No. 2000-81 (Implementing Rules and Regulations of RA 8749) - o DAO 2013-13: Provisional National Ambient Air Quality Guideline Values for Particulate Matter 2.5 (PM2.5) - o DAO 2020-14: Establishing the Breakpoints for Particulate Matter 2.5 (PM2.5) Air Quality Index (AQI) and Amending Section 5 (a) of DAO 2013-13 “Establishing the Provisional National Ambient Air Quality Guideline Values for Particulate Matter 2.5 (PM2.5)” • NPCC MC 1980-002: Amendments to Article 1 (Noise Control Regulations), Chapter IV (Miscellaneous Regulations), Rules and Regulations of the NPCC (1978), Section 78 – Ambient (Noise) Quality and Emission Standards for Noise	• Securing Permit-to-Operate for Air Pollution Source Installation (i.e., genset) from DENR-EMB • Compliance with ambient air quality standards and air emission standards during facility construction and operation • Compliance with noise level standards during facility construction and operation
	Waste • PD 856 (1975): Code on Sanitation of the Philippines and its IRR – Chapter XVIII Refuse Disposal • RA 9003 (2001): Ecological Solid Waste Management Act of 2000 and its IRR (DAO 2001-34) • RA 6969 (1990): Toxic Substances and Hazardous and Nuclear Wastes Control Act of 1990 and its IRR (DAO 1992-29) - o DAO 2013-22: Revised Procedures and Standards for the Management of Hazardous Wastes (revising DAO 2004-36)	• Preparation and implementation of Solid Waste Management Plan (SWMP) and Hazardous Waste Management Plan (HWMP) during facility construction and operation • Securing Hazardous Waste Generator's ID • Compliance with proper labelling, segregation, storage, transport and disposal of solid waste and hazardous waste • Utilization of DENR-EMB accredited hauler and treater for Hazardous Waste Disposal
Climate Change and Disaster Risk	• RA 9729 (2009): Climate Change Act of 2009, its IRR (CCC AO 20-10-01), and Revised IRR (CCC Resolution No. 2011-3) • RA 10121 (2010): Philippine Disaster Risk Reduction and Management Act of 2010 and its IRR • EMB MC 2011-005: EIA Technical Guidelines incorporating Disaster Risk Reduction (DRR) and Climate Change Adaptation (CCA) Concerns • EMB MC 2022-05: Adoption of the use of HazardHunterPH in Generating Initial Hazard Assessment Reports as part of Enhancing the Integration of Disaster Risk Reduction and Climate Change Adaptation into the PEISS	• Project site screening for climate risks, disaster risks, and natural hazards • Integration of CCA and DRR concerns in the formulation of ESMP and ESMoP
Cultural Heritage	• RA 10066 (2010): National Cultural Heritage Act of 2009 and its IRR • RA 4846 (1966): Cultural Properties Preservation and Protection Act, as amended by PD 374 (1974)	• Project site screening for proximity to cultural properties and heritage sites • Implementation of Chance Find Procedures, as applicable
Indigenous Peoples	• RA 8371 (1997): The Indigenous Peoples' Rights Act of 1997 and its IRR (NCIP AO No. 1, Series of 1998) - o NCIP AO No. 1, Series of 2006: The Free and Prior Informed Consent Guidelines of	• Project site screening for proximity to ancestral domains or areas covered by Certificate of Ancestral Domain Titles

	2006 - o NCIP AO No. 3, Series of 2012: Revised Guidelines on Free and Prior Informed Consent and Related Processes	(CADTs) • If outside ancestral domain/CADT area, securing Certificate of Non-Overlap (CNO) from NCIP • If within ancestral domain/CADT area: securing of Free, Prior, and Informed Consent (FPIC) from concerned ICC/IP and securing of Certification Precondition (CP) from NCIP • Preparation and implementation of Indigenous Peoples Plan (IPP)
Labour and Employment	• PD 442 (1974): The Labor Code of the Philippines, as amended and renumbered (DOLE Edition) - o DOLE DO 174-17: Rules and Implementing Articles 106 to 109 of the Labor Code, as amended (Regulations Governing Contracting and Subcontracting Arrangements) • RA 9231 (2003): Special Protection of Children Against Child Abuse, Exploitation and Discrimination Act • RA 11199 (2018): Social Security Act of 2018 and its IRR • RA 10771: Philippine Green Jobs Act of 2016 and its IRR • PD 807 (1975): Civil Service Decree of the Philippines	• For consideration and integration of concerns during project preparation, design, and implementation, as applicable • Preparation and implementation of Labour Management Procedures • Non-discrimination and equal opportunity • Prohibition of forced labour and child labour • Provisions on worker's organizations
Health, Safety, and Security	• RA 11058 (2017): An Act Strengthening Compliance with Occupational Safety and Health Standards and Providing Penalties for Violations Thereof and its IRR (DOLE DO 198-18) - o DOLE Occupational Safety and Health Standards (As Amended, 1989) - o DOLE DO 13-98: Guidelines Governing Occupational Safety and Health in the Construction Industry - o DOLE DO 53-03: Guidelines for the Implementation of a Drug-Free Workplace Policies and programs for the Private Sector - o DOLE DO 73-05: Guidelines for the Implementation of Policy and Program on Tuberculosis - o DOLE DO 05-10: Guidelines for the Implementation of a Workplace Policy and Program on Hepatitis B - o DOLE DO 102-10: Guidelines for the Implementation of HIV and AIDS Prevention and Control in the Workplace Program - o DOLE DO 235-22: Rules on the Certification of First Aiders and the Accreditation of First Aid Training Providers - o DOLE DO 253-25: Standards on Temporary Accommodation and Welfare Facilities for Workers • CSC-DOH-DOLE JMC No. 1, Series of 2020: Occupational Safety and Health (OSH) Standards for the Public Sector	• Designation of Safety Officer Compliance with Section 4 (Duties of Employers, Workers and Other Persons) of the Act • Compliance with OSH standards • Compliance with DOLE guidelines on drug-free workplace, prevention and control of TB, Hepatitis B, and HIV/AIDS • Submission of Occupational Safety and Health Reports • Establishment of Occupational Safety and Health Committee • Secure permit to operate mechanical equipment and electrical facilities • Compliance with standards for worker's accommodation during construction
Gender Equity, Disability and Social Inclusion	Gender Equality • RA 7192 (1992): Women in Development and Nation Building Act and its IRR • RA 7877 (1995): Anti-Sexual Harassment Act of 1995 • RA 9208 (2003): Anti-Trafficking in Persons Act of 2003 • RA 9262 (2004): Anti-Violence Against Women and Their Children Act of 2004 • RA 9710 (2009): The Magna Carta of Women and its IRR • RA 11210 (2019): 105-Day Expanded Maternity Leave Law and its IRR • RA 11313 (2019): Safe Spaces Act and its IRR	• Gender assessment • Equal opportunities • Preparation and implementation of Gender and Development (GAD) Plan • Establishment of grievance redress mechanism (GRM) for gender-based sexual harassment cases

	NEDA-PCW-ODA GAD Network Harmonized Gender and Development Guidelines for Project Development, Implementation, Monitoring and Evaluation (3rd Edition, May 2016)	
	<u>Disability</u> BP 344 (1983): Accessibility Law and its IRR RA 7277 (1992): Magna Carta for Disabled Persons and its IRR	For consideration and integration of concerns during project preparation, design, and implementation, as applicable
	<u>Social Inclusion</u> RA 6725 (1989): An Act Strengthening the Prohibition on Discrimination Against Women with Respect to Terms and Conditions of Employment, Amending for the Purpose Article 135 of the Labor Code, as Amended RA 9231 (2003): Special Protection of Children Against Child Abuse, Exploitation and Discrimination Act RA 10911 (2016): Anti-Age Discrimination in Employment Act	Equal opportunities
Others	RA 7160: Local Government Code of 1991 RA 6541: National Building Code of the Philippines (amending PD 1096) DA Administrative Circular No. 2021-01: Mandatory Accreditation of Cold Storage Warehouse (CSWs) for Agricultural and Fishery Products RA 11285 (2019): Energy Efficiency and Conservation Act and its IRR (DOE DC 2019-11-0014) RA 9513 (2008): Renewable Energy Act of 2008	- Securing Locational/Zoning Clearance or Certification, Building Permit, and other LGU permits - Adherence to building code requirements - For consideration and integration of concerns during project preparation, design, and implementation, as applicable

F. Avoided duplication and synergies and with other funding sources

No duplication with other funding sources has been identified. The project has been designed to address a specific and comparatively under-resourced adaptation gap in Mindanao: the translation of national climate adaptation priorities into concrete local adaptation benefits for highly vulnerable groups dependent on a highly exposed segment of the AFFS. A review of related ongoing and recent initiatives confirms that several programmes operate in agriculture, rural development, cold chain, climate-resilient agriculture, water security, or community resilience in the Philippines. These initiatives provide useful lessons and potential entry points for coordination. However, ADAPT Mindanao remains distinct in its combined focus on: (i) Mindanao's FVVCs; (ii) LCCAP-linked local adaptation packages; (iii) climate-resilient post-harvest shared service centres; (iv) cooperative-level value addition and market engagement; and (v) CRA Business Planning and demo farming for adaptation benefits and finance readiness.

Project overview	Main objective	Assessment of synergies and potential duplication
Philippine Rural Development Programme (PRDP) Budget: USD 671 million (1% grant) Source of external financing/funding: IBRD (loan) / GEF (grant) Status: under implementation Main implementer: The Philippines Department of Agriculture	The Philippine Rural Development Project is a six-year (6) project designed to establish the government platform for a modern, climate-smart and market-oriented agri-fishery sector. PRDP partner with the LGUs and the private sector in providing key infrastructure, facilities, technology, and information that will raise incomes, productivity, and competitiveness in the countryside.	Proposal-stage screening of available PRDP/DA records identified relevant PRDP investments in some ADAPT Mindanao municipalities, but no programme-level duplication. The most relevant case is in Midsayap, where PRDP supported the Cotabato Mango Producers Cooperative through a mango processing facility in Bitoka. Other identified PRDP investments in ADAPT municipalities relate to different assets or commodities, an organic production centre/common service facility in Sto. Tomas, and farm-to-market road infrastructure linked to New Alegria, Compostela. No equivalent PRDP-funded asset corresponding to ADAPT Mindanao's planned highland vegetable adaptation focus in Talakag was identified through this screening. On this basis, no duplication is expected. Existing PRDP-supported assets will be treated as part of the baseline institutional and service landscape in the relevant municipalities, rather than as activities to be replicated. In Midsayap, the CMPC experience may provide useful operational learning for assessing adaptation barriers in the mango value chain, including post-harvest climate risk, service accessibility, working capital constraints and climate-risk-informed business planning. ADAPT Mindanao will therefore complement PRDP by addressing residual and site-specific adaptation gaps in the targeted FVVCs, while drawing, as relevant, on the analytical basis and prioritization reflected in Provincial Commodity Investment Plans. This will ensure complementarity and avoid parallel support for the same assets, commodities, or enterprise functions already covered by PRDP.
Improving Philippine Mango Quality for Export Project Budget: USD 216,000 Source of external financing/funding: New Zealand Foreign Affairs and Trade Status: completed Main implementer: Plant & Food Research New Zealand, MinDA, Midsayap LGU, DA/BPI	The project was a mango-specific technical programme focused on improving the export quality and compliance of Philippine Carabao mangoes through an MRL-compliant spray programme, improved pesticide application practices, bagging, hot water treatment, PhilGAP-related certification, post-harvest quality assessment, and low-residue IPM protocols.	The programme has generated site-relevant evidence for Midsayap and neighbouring mango production areas, including reduced spray intensity, improved residue outcomes, better control of rots and anthracnose, and practical recommendations on spray timing, tree management, bagging, and post-harvest treatment. No duplication is expected. The initiative is a commodity-specific technical and export-readiness intervention, whereas ADAPT Mindanao will use mango as one of the climate-sensitive value-chain systems through which adaptation barriers are addressed in Midsayap. The relationship is therefore complementary: the mango quality initiative provides an applied technical evidence base that can inform the assessment of climate-resilient mango adaptation options, particularly in relation to climate-driven pest and disease pressure, residue-related maladaptation risks, post-harvest quality loss, and the feasibility of low-residue IPM under changing rainfall and temperature conditions. This complementarity is particularly relevant because the CRVA identifies Midsayap as having low adaptive capacity and high climate-risk vulnerability for mango production, with recurrent flooding, drought–rain reversals, extreme temperatures, and pest outbreaks. The initiative can therefore help ADAPT Mindanao further distinguish between soft and hard limits to adaptation, including emerging biophysical limits beyond which flowering, fruit quality, pest pressure, or disease incidence may no longer be manageable through existing practices alone.
Mindanao Inclusive Agriculture Development Project (MIADP) Budget: 125 million	The project aims to sustainably increase agricultural productivity, resilience, and access to markets and services for organized farmer	No direct duplication is expected. The only ADAPT Mindanao sites with Ancestral Domain considerations is Talakag, while the currently published MIADP list of initial Ancestral Domains does not identify the location among its Region 10 sites. MIADP will ultimately cover 26 Ancestral Domains, with additional sites still being finalized; therefore, ADAPT Mindanao will verify updated MIADP coverage during inception with DA/MIADP, MinDA, relevant

(0% grant) Source of external financing/funding: IBRD Status: under implementation (2023-2029) Main implementer: DA/NCIP	and fisherfolk groups in selected Ancestral Domains in Mindanao's Indigenous Peoples' Organizations and related beneficiaries.	LGUs and, where applicable, NCIP, to ensure that no locations, beneficiaries, assets or subprojects are double-financed. Complementarity may arise through the use of MIADP lessons on adaptation delivery in Indigenous and upland agricultural systems, particularly on access constraints, organizational capacity, climate-resilient infrastructure, post-harvest services and safeguards-compliant engagement.
GCF FP201 – Adapting Philippine Agriculture to Climate Change (APA) Budget: USD 39 million (66% grant) Source of external financing/funding: GCF Status: under implementation (2023-2031) Main implementer: FAO, Philippines Department of Agriculture, DOST-PAGASA	The project aims to increase the resilience of rural men and women dependent on agriculture by strengthening climate information services (CIS), climate-resilient agriculture (CRA) services, CRA enterprise development, and the enabling environment for mainstreaming CRA	APA operates in nine provinces, including Bukidnon and North Cotabato, and in these two Mindanao provinces its crop-level CRA focus is primarily on rice and corn systems, including drought-related CRA options such as rice-onion rotation, alternate wetting and drying, organic rice and organic corn. It also supports institutional CIS capacities through DA-PAGASA coordination, CIS platforms, regional and provincial CIS centres, agromet station strengthening, and the production of localized agromet advisories, pest and disease alerts, and longer-term agro-climate information. No duplication is expected. Although APA has provincial overlap with ADAPT Mindanao in Bukidnon and North Cotabato, the overlap is at the level of enabling systems and climate-information capacity, not in the same project sites, assets, beneficiaries or value-chain investments. ADAPT Mindanao is focused on fruits and vegetables value chains, including post-harvest resilience, shared service functions, cooperative readiness and adaptation finance, while APA's verified Mindanao crop focus is rice and corn. Following consultations with FAO and the APA PMO, complementarities have been identified, particularly on CIS: ADAPT Mindanao will build on APA's DA-PAGASA experience in developing farmer-oriented CIS for rice and corn and extend this learning to the project's priority fruits and vegetables, including the translation of PAGASA climate information into crop-specific advisories for local adaptation decision-making.
GEF Project 9921 – Global Partnership for Improving the Food Cold Chain in the Philippines Budget: USD 27.5 million (7% grant) Source of external financing/funding: GEF Status: completed (2020-2025) Main implementer: UNIDO	Focused on improving the Philippine food cold chain through low-carbon, energy-efficient and climate-friendly refrigeration technologies and business practices.	No duplication is expected. The GEF project addressed cold-chain technology transformation at national and sectoral level, while ADAPT Mindanao will assess post-harvest and cooling solutions only where they respond to site-specific adaptation needs in the targeted fruits and vegetables value chains. Complementarity has been identified through consultation with the former project manager in Manila, particularly in relation to the project's experience with solar-powered cooling and refrigeration options. These lessons, together with the project terminal evaluation, will be used to inform the feasibility assessment and design choices for the ADAPT Centres under Component 2, helping ensure that any cooling-related adaptation measures are technically appropriate, energy-efficient, climate-friendly and financially viable.

TEAM Program – Transformational Enterprise Support for the Agribusiness Value-Chains of Mindanao Budget: USD 1.6 million Source of external financing/funding: not applicable as the project is funded by domestic resources. Status: completed (2020-2028) Main implementer: MinDA	TEAM is an agribusiness convergence and investment facilitation programme to improve scale, quality and delivery across Mindanao's priority agricultural value chains. TEAM targets high-value crops and supports cold chain, packaging, production expansion, processing, business planning, investment promotion, financing forums and business matching.	No duplication is expected, as TEAM is not designed as a site-specific climate adaptation project and no TEAM-financed assets in the ADAPT Mindanao sites have been identified. Rather, TEAM provides an important scale-up and market-alignment platform for ADAPT Mindanao, especially under ADAPT to Market. ADAPT Mindanao will generate climate-risk-informed, site-specific demonstration packages through the ADAPT Centres, showing how improved aggregation, handling, storage, processing, packaging and value addition can reduce post-harvest climate losses and improve market readiness. TEAM can then provide a complementary channel for engaging anchor firms, buyers, processors, financial institutions and investment promotion activities around those demonstrated adaptation models. In this way, ADAPT Mindanao supplies the adaptation evidence, cooperative readiness and climate-resilient value-addition models, while TEAM can help connect these models to wider market, financing and investment opportunities beyond the AF-funded activities.
Harnessing the Water–Energy–Food nexus to Address and Adapt to Climate Change Impacts in Tawi-Tawi Budget: USD 9.9 million Source of external financing/funding: AF Status: under implementation (2026-2030) Main implementer: UNIDO	The project focuses on climate-resilient water access, solar-powered desalination, water-system rehabilitation, coastal resilience, gender-responsive community adaptation, and seaweed livelihood resilience, including value addition, market linkages and diversification under climate stress.	No duplication is expected, as the project is geographically focused on Tawi-Tawi and addresses water security and seaweed-based livelihoods, while ADAPT Mindanao targets fruits and vegetables value chains in mainland Mindanao. Synergies are significant: the project can inform the Mindanao FVVC Adaptation Action Plan through its water–energy–food nexus approach, climate-resilient infrastructure feasibility, gender-responsive and IP-sensitive consultation, and treatment of adaptation constraints and limits. Its experience with off-grid water and energy systems is also relevant to ADAPT Centre feasibility, particularly where cooling, processing, aggregation or post-harvest services face water, energy or reliability constraints.
Adaptation Fund Climate Innovation Accelerator – Adaptation SMEs Innovation Facility (ASIF) Budget: USD 10 million Source of external financing/funding: AF Status: under implementation (2026-2030) Main implementer: UNIDO	The project supports early-stage SMEs developing climate adaptation technologies and business models across food and agriculture value chains, financial services, blue economy, urban adaptation and health.	No duplication is expected, as ASIF is not a site-specific investment project and does not pre-identify assets, beneficiaries or activities in ADAPT Mindanao's project sites. It operates through competitive global calls and independent screening and selection of SMEs. Complementarity is nevertheless potentially significant. ADAPT Mindanao may help identify agripreneurs, cooperatives, MSMEs or service providers with innovative adaptation solutions emerging from the ADAPT to Farm, ADAPT to Market and ADAPT Centre users, particularly where solutions relate to climate information, post-harvest loss reduction, renewable-energy-supported services, cold storage, aggregation, processing, logistics, climate-risk finance or market access. Where such actors are eligible, they may be signposted to AFCIA/ASIF small-grant opportunities for distinct innovation development or scale-up support.

G. Learning and knowledge management

Learning and knowledge management are embedded in ADAPT Mindanao through the project's SCALE output track and are designed to convert implementation experience into practical planning, operational, market and finance readiness products. The project will capture evidence from locally led adaptation planning, ADAPT Centre preparation and use, ADAPT to Market activities, CRA Business Planning, CRA Demo Farming, safeguards monitoring, gender and inclusion tracking, beneficiary feedback and routine project reporting. This evidence will support adaptive management during implementation, allowing the project to refine delivery based on field performance, facility utilization, cooperative readiness, demo-farming results, access barriers and the differentiated experience of women, youth, Indigenous Peoples, persons with disabilities and other vulnerable groups.

Under LEAD, the project will document how LGUs, cooperatives, farmers' associations and local value-chain actors translate climate-risk evidence into LCCAP-linked FVVC Adaptation Packages and into the Mindanao FVVC Adaptation Action Plan for 2030–2050, supported by assessments, investment roadmaps, toolkits, sector-specific guidance and feasibility products. Under PROCESS, learning will focus on the performance of ADAPT Centres as climate-resilient shared service platforms, including service use, operating arrangements, crop-specific post-harvest and value-addition needs, buyer requirements, market-readiness constraints and access conditions for vulnerable users. Under INVEST, the project will document the climate relevance, technical performance, cost implications, safeguards considerations and replication potential of CRA Business Plans and Demo-Farming models, and will convert this evidence into technical validation, scale-up and adaptation finance-alignment packages.

Knowledge products will be tailored to the institutions and users expected to apply them beyond the project period. LGUs, MinDA and public institutions will receive planning briefs, investment-oriented materials, technical guidance and validation outputs to inform local planning, regional coordination and future adaptation programming. Cooperatives and smallholders will receive practical guidance, field-learning materials, peer-exchange opportunities and ADAPT Centre-based learning support. Market actors and finance institutions will receive concise evidence packages, validation summaries, screening criteria and referral notes to support structured market engagement and future adaptation finance dialogue. Dissemination will take place through validation workshops, LGU and MinDA coordination processes, ADAPT Centre learning events, cooperative-to-cooperative exchanges, market engagement events, technical briefs, case studies and relevant UNIDO and government knowledge channels, ensuring that project learning supports replication in additional municipalities, cooperatives and comparable fruits and vegetables systems in Mindanao.

H. Consultative process

The project consultation process was designed as a structured and iterative formulation process, going beyond information sharing to create space for local stakeholders and direct beneficiaries to identify adaptation barriers, validate climate risks, and co-design context-specific interventions. It combined top-down and bottom-up inputs: national adaptation priorities, available studies and assessments, consultations with national and regional institutions, and strategic guidance from MinDA were brought together with participatory, site-level consultations involving LGUs, municipal agriculture offices, cooperatives, farmers, women and Indigenous Peoples, supported by KIIs, FGDs, site visits, and a direct beneficiary survey. This approach ensured that the project design was both technically grounded and locally validated, while remaining closely anchored in national and Mindanao development priorities through continuous co-design with MinDA as the main government partner. Particular attention was given to gender-responsive participation: in addition to the standalone Gender Assessment, gender considerations were integrated into the CRVA process, co-design sessions, and final validation workshop, including dedicated opportunities for women and women farmers to raise differentiated needs, constraints, access barriers, and priorities. Consistent with the Adaptation Fund Environmental and Social Policy and Gender Policy, the process sought to promote meaningful, inclusive, gender-responsive, and culturally appropriate participation and to ensure that stakeholder inputs were reflected in the final theory of change, component structure, intervention package, safeguards approach, and implementation arrangements.

1. **Inception workshop – 6 February 2026.** Stakeholders consulted: MinDA, SMCs and relevant institutional stakeholders involved in the formulation phase. The inception workshop launched the detailed Project Formulation Grant process by presenting the project concept, full-proposal formulation workplan, timeline, and opportunities for engagement. It established the basis for the subsequent technical assessments, stakeholder consultations, and participatory formulation process, including the CRVA, Gender Assessment, ESIA/ESMP elaboration, and co-design activities.
2. **CRVA and Gender Assessment project site visit – 9–20 March 2026.** Stakeholders consulted: LGUs, municipal and city agriculture offices, local development partners, NGOs, universities, farmer cooperatives, direct beneficiaries, women farmers, and stakeholders relevant to indigenous communities and vulnerable groups. The CRVA and Gender Assessment mission generated the main technical and social evidence base for the project through KIIs, FGDs, site visits, and direct beneficiary surveys. The consultations gathered information on local climate risks, existing infrastructure and services, adaptation gaps, gender roles, access to resources, decision-making, and barriers affecting women and vulnerable groups. The process reached 150 KII/FGD participants with near gender parity and 1,143 direct beneficiary survey respondents, and directly informed site selection, intervention targeting, gender-responsive design, and the identification of adaptation priorities.
3. **Climate adaptation capacity-building and co-design sessions – 23-24 March (Tagum) and 30-31 March (Kidapawan) 2026.** Stakeholders consulted: Farmer representatives, cooperatives, local government representatives, MinDA, and local stakeholders in Tagum and Kidapawan. The capacity-building session delivered by UNIDO and co-design sessions facilitated by UNIDO/MinDA were used to strengthen local understanding of climate impacts in agriculture and to translate preliminary CRVA/GA findings into practical project design inputs. Discussions focused on how climate risks affect production, harvesting, storage, processing, and marketing and helped refine locally relevant adaptation options for the fruits and vegetables value chain. These sessions contributed to the design of support for locally led adaptation planning, post-harvest resilience, shared services, and climate-resilient value-chains.
4. **Strategic consultation with MinDA leadership – 28 March 2026.** Stakeholders consulted: MinDA Undersecretary Janet Lopez, MinDA technical staff. This strategic consultation helped refine the project's high-level vision, component logic, governance arrangements, and scale-up strategies. MinDA emphasized that the project should avoid producing plans without implementation value and should instead generate practical instruments, guidelines, toolkits, and actionable outputs. The consultation also reinforced the need for strong MinDA ownership in execution arrangements, engagement with banks through practical capacity-building by experience, and stronger involvement of larger private sector actors such as buyers and processors in the scale-up logic.
5. **National stakeholders consultations in Manila – 31 March–1 April 2026 and 8-9 April.** Stakeholders consulted: GCF-APA/FAO, ESIA team, People in Need, development partners, and other institutional and private/non-governmental actors. The consultations were organized to identify complementarities with ongoing and recent initiatives, avoid duplication, and strengthen partnerships relevant to climate adaptation, agricultural resilience, and FVVCs. They included discussions with FAO on the GCF Adapting Philippine Agriculture project and other FAO initiatives, coordination with the ESIA team, and engagement with potential implementation or partnership actors. The consultations informed the proposal's mapping of related interventions, partnership strategy, and response to the Adaptation Fund Board request for a more comprehensive overview of related initiatives in the Philippines.
6. **Stakeholder consultation, intervention validation, and ESIA/ESMP oversight mission – 12–23 April 2026.** Stakeholders consulted: Landbank, KLT Fruits, Department of Agriculture, Climate Change Commission, LGUs, municipal agriculture offices, target cooperatives, private sector actors, and local stakeholders in the project sites. This mission provided a second round of institutional and field-based validation of the proposed intervention package. It combined stakeholder consultations, site visits, safeguards oversight, and discussions on partnerships and implementation arrangements. The process helped validate and refine locally contextualized and gender-responsive adaptation options, generated technical inputs for the ESIA/ESMP, strengthened stakeholder ownership, and informed the integration of climate risk, safeguards, financing, and institutional considerations into the full proposal.

7. **Strategic consultation with MinDA technical team – 7 May 2026.** Stakeholders consulted: MinDA technical team. This consultation served as a final technical alignment step before the broader Final Validation Workshop. UNIDO presented the consolidated project structure, including the refined theory of change, component architecture, proposed intervention package, implementation logic, and key assessment findings. The discussion allowed MinDA's technical team to review and validate the final design direction, confirm consistency with MinDA priorities and earlier consultation inputs, and identify any remaining refinements before presentation to the wider group of stakeholders on 11 May 2026.
8. **Final Validation Workshop – 11 May 2026.** Stakeholders consulted: project-site LGUs, targeted cooperatives, MinDA. Hosted by MinDA, the Final Validation Workshop served as the final consultative step before proposal drafting finalization. It brought together key stakeholders to review the proposed project design, CRVA and Gender Analysis findings, initial ESIA findings, and ESMP/ESMF requirements. The workshop validated the evidence base, theory of change, component structure, intervention package, safeguards approach, and gender considerations, and consolidated recommendations to inform the final revisions of the proposal.

I. Funding justification and full cost of adaptation reasoning

The requested Adaptation Fund financing is justified on the basis of the full cost of adaptation required to achieve the three project-specific objectives in relation to observed climate impacts and projected climate risks. The project does not finance general agricultural development interventions. It finances the adaptation-specific measures required to address climate-related production losses, post-harvest deterioration, quality loss, market disruption, debt exposure, and weak investment readiness in FVVCs. The adaptation additionality lies in ensuring that adaptation benefits are traceable and anchored in local planning, shared services design, CRA farm-level practices, and leverage targeted adaptation finance to vulnerable actors who would otherwise remain dependent on short-term and maladaptive coping responses.

Under the baseline scenario, climate planning instruments, agricultural extension services, post-harvest initiatives, and rural finance programmes are already present in the Philippines. However, these baseline assets do not yet provide the full set of adaptation functions required in the target sites. Local plans and programmes do not yet sufficiently address the observed and projected climate impacts affecting the FVVCs through site-specific, technically defined, and finance-oriented relevant adaptation actions. Where available, existing post-harvest and market-support services do not adequately reduce exposure to extreme heat, heavy rainfall, flooding, delayed handling, spoilage, and quality deterioration for vulnerable smallholders and cooperatives. Existing rural finance channels are also not yet sufficiently equipped to appraise cooperative-level CRA investments on the basis of climate-risk evidence, adaptation benefit, technical feasibility, safeguards, and replication conditions.

The AF grant covers the full adaptation cost of addressing these barriers through the project's integrated LEAD, PROCESS and INVEST structure. Component 1 finances the additional institutional and planning capacities required to address climate impacts through LCCAP-linked FVVC Adaptation Packages and the Mindanao FVVC Adaptation Action Plan for 2030–2050. Component 2 finances the climate-resilient shared service assets, user readiness and market-facing support required to reduce post-harvest exposure, preserve quality and retain value locally through ADAPT Centres and ADAPT to Market. Component 3 finances the additional support required for cooperatives to prepare climate-risk-informed CRA Business Plans, apply technically validated CRA measures under real farming conditions, document adaptation results and convert field evidence into finance-alignment materials. These costs are additional to business-as-usual agriculture support because they are incurred specifically to reduce climate vulnerability, shift actors away from maladaptive coping, and create the evidence and institutional conditions required for responsible replication.

The project can achieve its objective and outcomes with the requested Adaptation Fund resources alone. Government programmes, development partners, market actors and rural finance institutions may strengthen coordination, future uptake and post-project replication, but no project outcome depends on additional external financing. Grant financing is justified because the primary beneficiaries have limited capacity to absorb additional adaptation costs, as their assets, income stability, and bargaining position are already weakened by

recurring climate shocks, post-harvest losses, and dependence on costly or debt-inducing finance. The requested funding also includes environmental and social screening, gender-responsive targeting, inclusive participation, Indigenous Peoples engagement where applicable, grievance redress, technical validation, monitoring and adaptive management as part of the full cost of adaptation, ensuring that project-supported activities reduce vulnerability without creating exclusion, unmanaged environmental and social risks, or new maladaptive incentives.

J. Sustainability of the project

Sustainability has been incorporated into the project design by anchoring outcomes in existing institutions, local service-delivery functions, cooperative organizations, and leveraging existing concessional finance. Component 1 provides the institutional basis for sustainability by working through LGU planning and coordination arrangements, particularly LCCAP-linked processes, rather than creating a parallel structure. The project treats sustainability as a design requirement to be addressed before infrastructure, equipment, services and farm-level adaptation measures are financed. This approach is essential in the context of climate-resilient agro-industry and post-harvest transformation, where adaptation benefits depend on continued utilization, maintenance, affordability, institutional ownership, and capacity to respond to evolving climate risks.

For Component 2, the ADAPT Centres are designed as shared-service platforms that can continue to provide adaptation-relevant services after project closure. The Centres will be established under the institutional oversight of the Municipal Agricultural Offices (MAO) and incorporated into the Local Government Unit's public asset base. Private sector engagement is foreseen in A2.1.3.1 (strategic partners arrangements/engagement), A2.1.3.2 (market/service provider engagement), A2.1.1.1 (Establish ADAPT Centre Business Planning Groups and workplans established), A2.1.1.2 (Prepare centre-specific Technical Notes and preprepare, technically review and validate ADAPT Centre Business Plans). Their sustainability is, therefore, strengthened through site-specific configuration based on investment preparation, service-demand assessment, technical design, safeguards screening, compliance review, procurement readiness and ADAPT Centre Business Planning. This process supports appropriate sizing, siting, technology selection, user-demand alignment, environmental and social risk management, and operational readiness. The shared-service model is central to the project's sustainability. This spreads fixed costs across a larger user base, lowers the unit cost of access to post-harvest and value-addition services, and increases the likelihood that the Centres remain operational through organized throughput, cooperative use, market requirements and local service delivery. The ADAPT Centre Learning Programme, operator preparation, service protocols, buyer engagement, and practical demonstrations will further support regular use and sustained operational performance.

Operation and maintenance arrangements will also be addressed as part of the Centre design and commissioning process. Operational management will be carried out through public-private partnership concession contracts. Under this concession model, management responsibilities will be shared between the Municipal Agricultural Office and private-sector actors, including selected local cooperatives. Site-specific operating arrangements will define responsibilities for facility use, routine maintenance, safeguards compliance, user access, service management, and cost recovery. Depending on local conditions, these may include service fees, equipment-use fees, cooperative contributions, municipal support or other locally appropriate arrangements. This strengthens the financial and institutional basis for continued operation. Anchoring the Centres through Municipal Agriculture Offices, in coordination with cooperatives, farmers' associations and relevant local partners, further strengthens continuity by embedding the assets within existing agricultural service-delivery structures. This is duly reflected in dedicated activities that will define the range of services (A2.2.1.1 - Complete site, asset, service-demand and feasibility assessments for each ADAPT Centre) to be provided by each Centre, as well as the corresponding business model (A2.1.2.3 - Prepare, technically review and validate ADAPT Centre Business Plans) required to generate sufficient revenue for sustainable operations (A2.2.3.3 - Commission ADAPT Centres and establish operating arrangements and A2.2.3.4 - Provide start-up support and handover to regular centre use).

Sustainability is also reinforced through technology and resource-efficiency choices. Where cooling, drying, storage, processing, packaging, waste management or renewable-energy-supported services are selected, the

feasibility and design process will consider operating costs, maintenance requirements, energy and water efficiency, food safety, sanitation, local repair capacity, environmental safeguards and climate resilience. Technology selection will therefore prioritize lifecycle performance, suitability for local crops, operational affordability, availability of maintenance support, including *in loco* technical support, and resilience under projected climate stress. The project applies a lifecycle efficiency logic to ensure that investment choices are technically appropriate, financially manageable, and locally maintainable. Component 3 complements this sustainability logic at farm and cooperative levels. CRA Business Planning and CRA Demo Farming will help ensure that climate-resilient agriculture measures are technically validated under real farming conditions before they are promoted for wider uptake or finance alignment. This improves the suitability of adaptation measures for local crops, hazard profiles, soil and water conditions, labour capacity, and market requirements. It also supports a shift towards climate-resilient production practices, improved input management, soil and water conservation, and more viable farm-level investment decisions. By producing practical evidence that farmers, cooperatives, LGUs, and rural finance actors can use, the project increases the likelihood that successful measures will be sustained and replicated after project closure.

K. Overview of the environmental and social impacts and risks identified

Environmental and social impacts and risks have been identified in relation to the project interventions, the selected sites, and the requirements of the Adaptation Fund Environmental and Social Policy and Gender Policy. The project is classified as **Category B**, as potential adverse impacts and risks are expected to be limited, site-specific, largely reversible, and manageable through appropriate environmental and social measures. The most relevant risks relate to climate-resilient post-harvest shared service infrastructure, site-level construction or installation works, occupational health and safety, resource efficiency, waste and wastewater management, equitable access to benefits, gender-differentiated participation and benefit-sharing, Indigenous Peoples and ancestral domain considerations, land access, natural habitats, biodiversity, geohazard exposure, and the screening of CRA Demo Farming and grant-supported adaptation investments. The table below summarizes the relevant environmental and social principles and identifies where further assessment, screening and management measures are required.

Table 5 – Potential impacts and risks assessed against the 15 AF ESP Principles

Checklist of environmental and social principles	No further assessment required	Potential impacts and risks – further assessment and management required for compliance
1. Compliance with the Law		Low risk: Compliance risks relate to environmental permitting, local permits and clearances, land access documentation, construction and installation requirements, occupational safety and health, labour standards, food safety, water and waste management, and Indigenous Peoples requirements where applicable. These risks are most relevant to ADAPT Centres (Output 2.2) and to the ADAPT to Farm (Output 3.1) supported investment through the ABGM. The ESMP details a legal and regulatory screening that must be conducted before implementation and the above-mentioned outputs include dedicated activities on compliance and safeguards, as envisaged under A2.2.1.1, A3.1.2.1, and A3.1.2.2.
2. Access and Equity	X	Low risk: The project is designed to benefit vulnerable smallholders, small and micro cooperatives, farmers' associations and local value-chain actors. However, access to services, training, market platforms, CRA business planning, grant-supported adaptation investments could favour better organized cooperatives, male-dominated groups, farmers located closer to service centres, or actors with stronger institutional connections. The ESMP, the GAP, as well as the Operating Framework of the ADAPT Centres establish a dedicated framework for ensuring meaningful participation and the requirements to confirm that eligibility, outreach, service access and benefit-sharing arrangements are transparent, inclusive and accessible to women, youth, Indigenous Peoples, persons with disabilities and poorer cooperative members.
3. Marginalized and Vulnerable Groups	X	Medium risk: The project directly targets vulnerable groups, including smallholder farmers, members of small and micro cooperatives members, women, youth, Indigenous Peoples, persons with disabilities and farmers dependent on informal or high-interest credit. Because these groups may face barriers related to literacy, language, mobility, time availability, land tenure, access to finance, cooperative participation and market access, there is a risk that the most vulnerable may be underrepresented unless site-level targeting and participation measures are carefully applied. The ESMP and GAP account and envisage dedicated screening and implementation mechanisms to manage those risks.
4. Human Rights		Low risk: No activity is designed to restrict rights or access to essential resources. The relevant risks are indirect and relate to discriminatory benefit allocation, weak participation, inadequate grievance handling, land-access disputes, or insufficient consultation with affected communities, including Indigenous Peoples. These risks require continued screening and monitoring as per the ESMP and GAP across site selection, beneficiary selection, facility access, grant-supported investments and grievance redress.
5. Gender Equality and Women's Empowerment	X	Medium risk: Women in the target value chains may face barriers to land, finance, technology, mobility, training participation, leadership in cooperatives and control over benefits. Project activities may also increase women's unpaid workload if new production, processing or cooperative responsibilities are not equitably managed. Consultations also indicated women farmers' concerns regarding health effects from exposure to synthetic pesticides and fertilizers, reinforcing the need to assess gender-differentiated risks in CRA Demo Farming and post-harvest activities. These risks are accounted in detail in the GAP, the design of the activities and their respective indicators.
6. Core Labour Rights		Medium risk: Construction, equipment installation, facility operation, aggregation, processing, logistics and demo farming may involve risks related to unsafe working conditions, inadequate personal protective equipment, informal or seasonal labour, discrimination, child labour, forced labour, weak contractor oversight, or inadequate worker grievance channels. These risks are most relevant to ADAPT Centres implementation, contractors, service providers, facility operators and grant-supported farm-level activities. Further assessment and detailed screening are established by the ESMP and, in particular, the USP Screening Framework.
7. Indigenous Peoples	X	Medium risk, but site-specific: The ESIA/ESMP Indicates that the INVEST site in Talakag is located within ancestral domain, while portions of the candidate sites in Midsayap may overlap with the CADT area and require further validation with NCIP Region XII. The proposed sites in Compostela and Santo Tomas are located outside but in proximity to ancestral domains. These risks are accounted for and will be managed through the ESMP.

8. Involuntary Resettlement		Low risk: The project does not finance involuntary resettlement, physical displacement or compulsory land acquisition. However, PROCESS units, upgrades to existing facilities, access areas, equipment installation and demo farming plots require site-level verification to confirm clear land ownership or voluntary access, absence of unresolved land claims, absence of tenants or informal users who could be displaced, and no economic displacement. Activities requiring involuntary land acquisition or livelihood displacement are not eligible as per exclusion list of the ESMP and USP Screening Framework
9. Protection of Natural Habitats		Low risk: Baseline assessment indicates that the proposed PROCESS and INVEST sites are not located within legislated or proclaimed protected areas, KBAs, critical habitats, or critical watersheds. While portions of Talakag and Compostela overlap with protected areas and KBAs, the assessed project sites are located outside these environmentally sensitive areas. Similarly, although portions of Talakag is covered by critical watersheds, the proposed project sites are not located within these watershed reservations. Any subproject that would result in the conversion, degradation, fragmentation, or encroachment of critical habitats, protected areas, KBAs, critical watersheds, or other ecologically sensitive areas shall not be eligible for financing under the Project as per the ESMP and the USP Screening Framework Exclusion List. All residual risks are accounted and managed through the ESMP.
10. Conservation of Biological Diversity		Low risk: The project is expected to support more climate-resilient and sustainable agricultural practices. However, demo farming, value-chain intensification or adaptation packages could create biodiversity risks if they promote unsuitable varieties, invasive species, habitat conversion, excessive agrochemical use, monocropping, or practices affecting native species and agro-biodiversity. These risks are accounted and will be closely managed, with closer attention to the ADAPT to Farm activities which will require biodiversity screening before approval as detailed in the ESMP, and in particular the Annex B (ADAPT to Farm - Adaptation Benefits Grant Mechanism).
11. Climate Change		Medium risk: The project's objective is adaptation and resilience building. The relevant risk is maladaptation: infrastructure or demo farming could be poorly suited to future climate conditions if sited in flood- or landslide-prone areas, if designs do not account for heat, rainfall variability or water constraints, or if technologies increase energy or water dependency without adequate climate justification. The susceptibility to flooding and rain-induced landslides across the study areas, making climate-risk screening essential for siting and design. These risks will be managed through the ESMP and dedicated activities that support further assessments under Output 1.2, 2.2 and 3.1.
12. Pollution Prevention and Resource Efficiency		Medium risk: ADAPT Centres and farm-level activities may generate construction waste, spoilage and organic waste, wastewater, packaging waste, refrigerant-related risks, increased energy and water demand, and possible agrochemical storage, handling or disposal concerns. These risks are relevant during construction, commissioning, facility operation, processing, storage and demo farming. Further assessment is required to define waste, water, energy and pollution-control requirements by site and activity type. The ESMP establishes detailed screening and assessment framework for managing such risks.
13. Public Health	X	Low risk: Potential risks relate to construction safety, traffic and access during works, occupational and community exposure to dust, noise or waste, food safety and hygiene in post-harvest and processing operations, cold-storage and equipment safety, and agrochemical exposure in farm-level activities. The project may also generate positive health-related benefits by reducing food losses and supporting safer agricultural practices, but public health risks require site-level assessment and operational controls. These risks are accounted and will be managed through the ESMP.
14. Physical and Cultural Heritage		Low risk: The likelihood of impacts is limited where activities use existing farms or existing municipal/cooperative facilities. As established in the ESMP, site-level screening, consultation with relevant communities and authorities, and chance-find procedures are required before ground disturbance, facility works or demo farming activities proceed.
15. Lands and Soil Conservation		Low risk: For the PROCESS activities, construction of storage and processing facilities, and other agricultural infrastructure may result in temporary soil disturbance during construction. Site preparation, excavation, and earthmoving activities may expose soils to erosion and sediment transport if not properly managed. In addition, the ADAPT to Farm activities may lead to changes in crop production systems and the conversion of existing farming plots into demonstration areas. To minimize potential adverse impacts, measures for erosion and sediment control, proper drainage management, stabilization and rehabilitation of disturbed areas, and appropriate management of excavated materials shall be implemented during project

		implementation as established by the ESMP and as per dedicated compliance and screening activities.
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PART III: IMPLEMENTATION ARRANGEMENTS

A. Project implementation arrangements

ADAPT Mindanao will be implemented through a tailored execution arrangement, in which execution responsibilities are assigned according to the technical nature, fiduciary requirements, risk profile, and demonstrated execution capabilities required for each output, while progressively strengthening national and sub-national execution capacity through a structured arrangement with MinDA. UNIDO will serve as the Multilateral Implementing Entity (MIE) of the project. In this role, UNIDO will remain fully responsible to the Adaptation Fund for overall project-cycle management, fiduciary oversight, quality assurance, environmental and social safeguards compliance, gender-policy compliance, monitoring and evaluation oversight, and reporting to the Adaptation Fund. UNIDO's role as Implementing Entity is distinct from any execution functions that UNIDO may perform under specific outputs. At the execution level, the project will use a mixed execution model. MinDA will serve as the principal national government executing partner, institutional coordinator, and will carry formal executing entity functions established under Output 1.1. UNIDO will also perform defined execution functions for selected outputs where specialized technical expertise, quality assurance, or fiduciary risk management requirements justify direct UNIDO execution. This exceptional execution role by UNIDO is at the request of the Government of the Philippines and responds to identified capacity constraints in local execution for highly specialized or high-value technical packages. In performing its execution functions, UNIDO will protect fiduciary and technical standards while transferring methods, tools, systems, and execution experience to MinDA and other national/sub-national partners over the project cycle. A specialized executing entity will be selected by UNIDO for the execution of the ADAPT to Farm Programme, including the management of the Adaptation Benefits Grant Mechanism (ABGM) as detailed in Annex B.

Summary of roles and responsibilities in the implementation/execution arrangements as defined in this project:

- i. Implementing Entity: the accredited entity responsible to the Adaptation Fund for overall project implementation, fiduciary management, safeguards compliance, M&E oversight, quality assurance, and reporting.
- ii. Executing Entity: an entity with formal responsibility for delivering specific project outputs or activities, managing assigned execution functions, and reporting on progress, risks, deliverables, and use of resources under the agreed project arrangements. Examples: UNIDO, MinDA and Executing Entity to be identified for the execution of Output 3.1.
- iii. Strategic Delivery Partner: an institution or stakeholder with no formal execution responsibility or fiduciary role, but which contributes to strategic steering, policy alignment, technical coordination, validation, beneficiary targeting, or sustainability. Examples: DENR, DA, Landbank, participating LGUs, Municipal Agriculture Offices, Municipal Planning and Development Offices, LDRRMOs, MENROs, cooperatives, women/youth/IP/PWD representatives, rural finance actors, academia, local NGOs, and private-sector market actors.
- iv. Specialized Technical Services Partner: a contracted service provider engaged by an Executing Entity to deliver defined technical services, works, studies, designs, assessments, training, validation, facilitation, or procurement-related inputs. These partners do not have a formal execution role and do not represent the project in governance decisions. Example: engineering/design firms, specialized consultancy, training providers, universities, training institutions, equipment suppliers.
- v. Grant Beneficiary / Sub-grantee: a beneficiary entity receiving results-based grant or sub-grant support to implement an agreed action under a formal grant arrangement. This does not make the entity an Executing Entity unless separately designated as such.

Where UNIDO engages with specialized technical services partners, procurement will follow UNIDO procurement rules and principles, including best value for money, fairness, accountability, integrity, transparency, and effective competition. The selection of the Executing Entity for Output 3.1 will be based on institutional mandate, fiduciary capacity, field presence, experience with cooperatives and rural finance,

community-based adaptation, capacity to manage grants or results-based support, safeguards and gender capacity, conflict-of-interest screening, and ability to report in accordance with Adaptation Fund and UNIDO requirements.

Project Steering Committee

The Project Steering Committee (PSC) will be established during the project inception phase to provide strategic oversight, policy direction, inter-institutional coordination, and high-level guidance for project implementation. The PSC will meet twice a year, and be chaired by MinDA, reflecting its role as the principal government institutional representative of the Government of the Philippines, as endorsed by the country's AF Designated Authority, and co-chaired by UNIDO in its capacity as the AF Multilateral Implementing Entity. The PSC will serve as the main decision-making and advisory body for the project and will meet twice a year, with additional meetings convened as needed. Its functions will be supported by the PMU, which will serve as the PSC Secretariat, and two subsidiary committees: the Technical and Scientific Advisory Committee (TSAC) and the Gender, Inclusion and Social Safeguards Advisory Committee (GISAC)

The Terms of Reference of the PSC and its respective subsidiaries will be prepared and endorsed during the inception phase and will be based, but not limited to, on the following envisaged roles, responsibilities, and composition.

PSC core functions and responsibilities

- Provide high-level strategic guidance to ensure project alignment with national policies, laws, best practices, and initiatives, and promote policy dialogue on issues relevant to the implementation and sustainability of the project.
- Provide strategic guidance to project implementation, ensuring interventions are in line with the full project package as approved by the Adaptation Fund Board and remain aligned with updated government policies and priorities.
- Review and approve annual Project Performance Reports (PPRs), including the respective workplans and budgets, as well as any requests for revision, in accordance with UNIDO and AF guidelines.
- Request the commission, review and approve the project Mid-term Evaluation (MTE) and Final Evaluation (FE).
- Support liaison and coordination between various projects and programs, including but not limited to the ones listed in Part II – Section K, and support the institutionalization of project-related activities and recommendations.
- Maintain continuous exchange of information among its members, ensuring coordination with various government agencies and key stakeholders, and their participation in project activities.
- Provide oversight on the effective implementation of the Monitoring and Evaluation (M&E) Plan and Gender Action Plan (GAP).
- Provide oversight on the effective implementation of the ESMP, ensuring that the UNIDO Social and Environmental Safeguards Policy is applied throughout project implementation and that related grievances are addressed, as necessary, through the appropriate GRM.
- Provide additional support and guidance to the project, as needed.

PSC composition

2 representatives from MinDA (1 Chair and 1 Technical Lead)
2 representatives from UNIDO (UNIDO Project Manager and UNIDO Country representative),
1 representative from the Philippine AF Designated Authority;
1 representative from the Department of Agriculture;
1 representative from the Department of Trade and Industry;
1 representative from Landbank;
1 representative from CCC;

The PMU will serve as the PSC Secretariat and, therefore, act as the body responsible for the organization of PSC meetings and for ensuring the appropriate documentation and record of those meetings. It will also prepare and present the documents to be reviewed by the PSC, ensuring coherence and allowing appropriate time for members to review them. In addition, the PSC Secretariat will support the Chair (MinDA) in consolidating the recommendations and decisions of the PSC and circulating them to the relevant stakeholders.

PSC subsidiary committees

Technical and Scientific Advisory Committee (TSAC): TSAC will be established during the inception phase to provide technical and scientific guidance for the implementation of the relevant workstreams, facilitate the mainstreaming of project objectives into relevant sector programs, recommend inter-sectoral coordination entry points for the project, and support the sharing of knowledge and project results among sectoral agencies and related projects. Its composition will include the components technical leads and invited representatives from local universities, the Municipal Agriculture Office (MAO) from each of the project sites, as well as other stakeholders to be identified during the inception phase.

Gender, Inclusion and Social Safeguards Advisory Committee (GISAC): GISAC will be established during the inception phase to provide advice and recommendations on how to ensure adaptation benefit-sharing generated by the project remains inclusive and equitable, and addresses the disproportionate climate impacts on the most vulnerable within the targeted communities. Its composition will include the Environmental, Gender and Social Safeguards Specialist and invited CSO representatives from the most vulnerable groups, including women, youth, PWD, and IPs, as well as LGU GAD representatives from the relevant municipal offices, together with other stakeholders to be identified during the inception phase.

Project Management Unit

A PMU will be established during the inception phase to serve as the operational platform for day-to-day project coordination, implementation follow-up, planning, monitoring, reporting support, and secretariat functions to the Project Steering Committee (PSC) and its subsidiary committees. The PMU will benefit from a joint technical stewardship by UNIDO and MinDA, combining UNIDO's technical and fiduciary oversight with MinDA's national execution leadership, institutional anchoring and coordination role across Mindanao.

The PMU will support the coordinated implementation of all three project components across the four project sites. Its core functions will include preparation and consolidation of PPRs, workplans and budgets; coordination of operational inputs from Executing Entities, specialized technical service providers, and strategic partners; follow-up of deliverables and implementation milestones; support to procurement and financial planning; maintenance of the project risk register; coordination of safeguards, gender, and inclusion follow-up; organization of PSC and subsidiary committees meetings; and consolidation of technical and operational inputs for reporting to the Adaptation Fund through UNIDO. The PMU will also ensure effective coordination across the project's components and their cross-cutting output tracks so that technical, scientific, safeguards, gender, inclusion, and site-level implementation issues are systematically reflected in project management and strategic decision-making.

The PMU will operate under the overall supervision of UNIDO in relation to Implementing Entity functions, including project-cycle management, fiduciary oversight, quality assurance, compliance supervision, and reporting to the Adaptation Fund. Within this framework, the day-to-day technical coherence of project execution will be led by the Agro-Industrial Value-Chain Development Specialist and supported by the Agro-industrial Resilience Project Lead, who will ensure integration across the LEAD, PROCESS, and INVEST components and across the LEARN & EXPERIENCE and SCALE output tracks. The PMU will further include core coordination and support functions, as indicated in this section, covering monitoring and evaluation, regional and site-level coordination, communications and knowledge management, and environmental and social safeguards, including gender. These functions will provide the operational backbone required to coordinate implementation across institutions, geographies, and technical workstreams.

To support delivery of the project's specialized outputs, the PMU will be supported by national and international experts that are directly linked to substantive execution packages, including adaptation finance, climate-resilient agriculture, value-chain and market access, and infrastructure and operations. UNIDO will also draw on its specialized technical expertise as required. These roles are not conceived as general administrative positions, but as technical delivery functions that will support the design, implementation, operationalization, validation, and scale-up of the project's adaptation solutions. In particular, they will help ensure the technical soundness of climate-resilient agriculture demonstration, post-harvest and shared-service infrastructure, cooperative business and finance readiness, and market-facing value-addition. The PMU will also closely coordinate with the Executing Entity to be identified for the execution of Output 3.1.

In line with Adaptation Fund requirements, a clear distinction will be maintained between Implementing Entity functions, PMU execution functions, and component-funded technical delivery roles. UNIDO's Implementing Entity responsibilities will be covered through the Implementing Entity fee and will remain separate from project execution. Core PMU coordination functions will be financed under project execution costs. Highly specialized technical roles linked to the delivery of specific outputs will be financed under the relevant component budgets. This distinction is intended to ensure clarity of accountability, appropriate budgeting of functions, and consistency between fiduciary oversight, operational coordination, and technical delivery.

PMU roles and responsibilities

Agro-Industrial Resilience Lead: Provides overall technical leadership for the agro-industrial adaptation approach of the project, ensuring that activities under LEAD, PROCESS and INVEST remain technically coherent, climate-risk informed and aligned with the project's theory of change. The position leads the development and application of technical methodologies, adaptation planning tools, value-chain climate-risk analysis, sectoral guidance, decision-support products, and technical standards for climate-resilient agro-industrial and post-harvest transformation.

Agro-Industrial Value-Chain Development Specialist: Provides country and site-level technical support for the development of climate-resilient fruits and vegetables value chains, with a focus on translating the project's agro-industrial adaptation approach into tangible adaptation and economic development benefits. The position supports crop and site-specific value-chain assessments, market-access, aggregation and post-harvest service models, cooperative readiness, buyer and processor engagement, and the operational design of value-addition and shared-services supported by the ADAPT Centres. Working as the technical counterpart to the Agro-Industrial Resilience Lead, the Specialist ensures that project methodologies, tools and technical standards are grounded in Philippine and Mindanao value-chain realities.

Monitoring and Evaluation Specialist: leads day-to-day project coordination, workplan follow-up, operational sequencing, coordination with MinDA, EEs, technical partners, PSC and sub-committees. It also supports budget tracking, administrative coordination, procurement planning follow-up, contract documentation, logistics, and operational financial documentation.

Regional Coordinator: coordinates regional and site-level implementation; liaises with LGUs, cooperatives, local stakeholders.

Communications and Knowledge Management Specialist: leads local-language communication, stakeholder-facing knowledge products, community feedback, visibility, documentation of lessons, and accessible knowledge dissemination.

Gender and Environmental and Social Safeguards Experts: Provide specialized technical inputs to ensure that gender equality, social inclusion and environmental and social safeguards are integrated into the implementation of project activities. The experts also support the implementation of the ESMP/ESMF, environmental and social screening of activity-level interventions, integration of safeguards and gender

requirements into technical specifications, ADAPT Centre operating arrangements, and the identification of site-specific mitigation measures. They also provide technical support for gender-responsive and socially inclusive stakeholder engagement, IP related requirements, safeguards and gender monitoring, documentation of corrective actions, and reporting of safeguards and gender results.

UNIDO Project Manager: provides IE-level project-cycle management, fiduciary oversight, quality assurance, AF reporting oversight, audit oversight, evaluation oversight and compliance supervision.

National and international experts: provide technical support in various areas of expertise for the delivery of specific project outputs.

The PMU will also be supported by the project subsidiary thematic committees in their capacities described in the previous PSC section. Their contribution to the PMU will ensure that technical, operational, scientific, safeguards, gender and inclusion issues identified at component or site level are brought into the project's strategic decision-making structure in a timely and systematic manner.

The inception phase of the project is estimated to last six months following the signature of the Standard Legal Agreement (SLA) and receiving the first disbursement.

Procurement provisions

Procurement of goods and services will be carried out in accordance with the UNIDO Procurement Manual³¹, applicable UNIDO financial rules and approved project safeguards and compliance requirements. The UNIDO Procurement Manual defines procurement as the full process for acquiring goods, works and services, including planning, sourcing, solicitation, contract award and contract administration, and applies the principles of best value for money, fairness, accountability, integrity, transparency, effective competition and the best interest of UNIDO. Procurement will be undertaken through competitive UNIDO procurement processes, with open international competition applied as the default approach for relevant procurement packages, and with *Invitation to Bid* or *Request for Proposal* used according to the nature, complexity and technical requirements of each package. No procurement waivers, local preference provisions, direct contracting arrangements, supplier pre-selection, or other exceptions to competition are envisaged.

Grants provisions

UNIDO will disburse funds to the specialized Executing Entity competitively selected through an open Call for Proposal (CfP) to implement the Output 3.1. The specialized Executing Entity shall demonstrate technical, operational, and fiduciary capacity required to manage the output in accordance with UNIDO requirements. Disbursements will be linked to agreed deliverables, milestones, reporting requirements and applicable UNIDO procedures as set in the Executing Entity Agreement. The specialized Executing Entity will enter into grant agreements with competitively selected local technical delivery partners. Payments to these partners will be made against agreed milestones and verified deliverables. Local technical delivery partners will support the selected cooperatives and farmer-members at site level but will not act as Executing Entities under the Adaptation Fund project structure. There should be no more than one technical delivery partner per project site. Grant resources will be managed by the specialized Executing Entity and disbursed through approved implementation arrangements, with support to cooperatives delivered through verified investments, services, equipment and other eligible expenditures.

Legal Context Clause

The present project is governed by the provisions of the Standard Basic Cooperation Agreement between the Republic of Philippines and UNIDO, signed and entered into force on 26 February 1993.

³¹ <https://www.unido.org/get-involved/procurement/unido-procurement-manual>

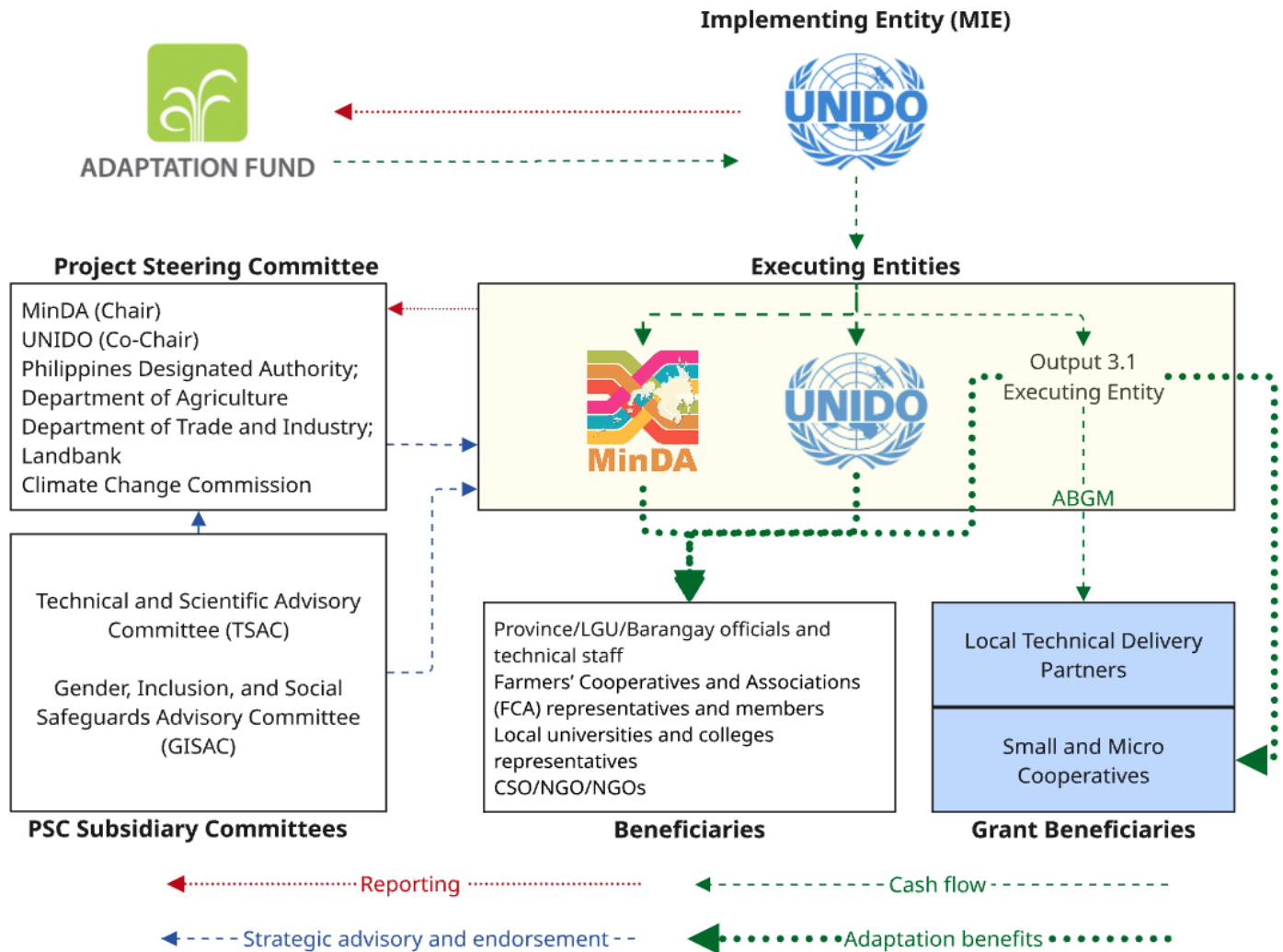


Figure 5 – Implementation arrangements overview

B. Financial and project risk

ADAPT Mindanao will manage financial and project/programme risks through UNIDO's fiduciary, procurement, grant-management, reporting and oversight procedures, complemented by project-level governance, technical review, safeguards screening and adaptive management. Financial controls will be anchored in the approved project document, annual workplans and budgets, the disbursement schedule, segregation of duties, verified deliverables, eligible expenditure documentation and regular reporting to the Project Steering Committee and the Adaptation Fund. A PMU-maintained risk register will assign risk owners, mitigation measures, monitoring frequency and escalation procedures. Specific controls will apply to the ADAPT Centres under Output 2.2 and the ADAPT to Farm grant mechanism under Output 3.1, where site-specific interventions will proceed after technical, fiduciary, environmental and social, gender and inclusion requirements are met. The principal risks and mitigation measures are summarized in the risk matrix below.

Table 6 – Risk Assessment Framework L – Low | M – Moderate | H – High

Risk type	Description of risk	I	L*	Assumptions	Mitigation measures	Risk owner
CONTEXT						
Environmental / Natural resource	Land degradation due to introduction of climate-resilient agricultural practices	M	L	Conservation agriculture and sustainable land management techniques are adopted by farmers and cooperatives as intended.	To address the risk of land degradation, the project will prioritise the application of Nature-Based Solutions (NbS) in the assessment of the adaptation options available. This means that intervention will consider improved soil management techniques can restore soil degradation. These approaches will be integrated with efforts to promote sustainable land management practices that prevent soil erosion and nutrient depletion. The project will avoid large-scale land conversion and adaptation solutions will be calibrated through local assessment and, first, deployed in the limited farming plots before scaling (1-3 hectares).	UNIDO
Environmental / Natural resource	Water resource depletion and contamination risks from agricultural expansion	M	L	Local water governance mechanisms are functional and communities are willing to adopt water-efficient practices.	The project will mitigate water-related risks by conducting site-specific water assessments to ensure the sustainable use of resources and prevent over-extraction or contamination. This will be reflected in site-specific ESIA and will be monitored and managed through the project ESMP/ESMF. Furthermore, adaptation options that prioritise efficient irrigation systems, rainwater harvesting, and conservation practices will be prioritised as adaptation options.	UNIDO
Climate / External	Climate change risks beyond soft limits of adaptation	H	M	Climate risks in the Philippines will remain within the SSP2-4.5 (middle-of-the-road) scenario.	CRA practices are effectively deployed to address up until Medium-High Pessimistic Scenario: SSP3-7.0.	UNIDO
Social / Gender	Gender barriers prevent adaptation benefits to be equally distributed or do not address climate impacts amplified by gender structural inequalities	H	L	Gender-sensitive approaches are embedded from the design stage, and cultural barriers to women's participation are actively addressed throughout implementation.	The project will ensure that women represent at least 40% of beneficiaries in core activities. Gender mainstreaming has been embedded throughout the project's design and implementation phases, supported by dedicated consultations and co-design sessions with female representatives of beneficiary cohorts. During implementation, there will be a dedicated Environmental, Gender and Social Safeguards Specialist within the PMU, in charge of the Gender Action Plan (GAP), and a thematic Gender, Inclusion and Social Safeguards Committee (GASC), with CSO participation, will provide advice and recommendations on gender mainstreaming throughout project implementation.	UNIDO

Environmental / Ecosystem	Potential strain on local ecosystems if CRA practices are not effectively implemented	M	L	Ecosystem-based approaches are applied consistently and environmental monitoring systems function as planned.	The project will adopt ecosystem-community-based approaches that considers traditional knowledge of local ecosystems. This will also help ensuring that agricultural and land-use interventions are environmentally sustainable. It will promote biodiversity conservation through sustainable land management, the prevention of deforestation, and the protection of natural habitats. The environmental impacts of project activities will be closely monitored by the ESMP/ESMF.	UNIDO
INNOVATION						
Operational / Capacity	Limited local capacity to implement CRA practices	H	H	Project beneficiaries are able to accommodate the workload of the project's capacity-building activities within their current activities and will remain willing to learn new techniques.	The project adopts an integrated approach of combining capacity building through formal training with building capacity through experience. In addition, the LEARN and EXPERIENCE activities are integral parts of each and all components, ensuring that capacity is built at stages is addressed to both beneficiaries as well as execution partners.	UNIDO
Financial	Limited access to climate finance for smallholder farmers	M	H	Capital market asymmetries can be reduced by the financial literacy of smallholder farmers and the enhancement of climate risk assessment and screening by local financial institutions. Access for the most vulnerable farmers to existing concessional rural financing can be enhanced through improved readiness.	The project has been designed to ensure that adaptation solutions remain accessible and affordable, while project-supported investments prioritise structures and tools that can be shared and applied at community level and at scale. At the same time, improved access to existing concessional finance is addressed through a dedicated Component 3, which combines learning, practical experience, technical validation, and alignment with lenders. The project has also been designed to reduce the dependency of its success on individual farm-level interventions. The largest portion of the project is delivered at the community level through the ADAPT Centres, which will be incorporated into LGU-level administration.	UNIDO
EXECUTION						
Social / Inclusion	Unequal access to training and financial support between different social group	M	L	Inclusive targeting and selection criteria are applied consistently through ESMP/ESMF.	The project will ensure that women, youth, and the most climate-vulnerable groups are actively included in all activities, where appropriate. This guiding principle will be implemented by the Environmental, Gender and Social Safeguards Specialist within the PMU, who is responsible for the Gender Action Plan (GAP), with the strategic guidance and support of the thematic Gender, Inclusion and Social Safeguards Committee (GASC).	UNIDO
Political / Conflict	Displacement or conflict over land and resource use due to project activities	L	L	Local and traditional authorities are engaged and supportive of participatory land-use planning. Grievance redress mechanisms are accepted and used by communities.	To minimise risks of displacement or resource-based conflict, the project will implement participatory land-use planning processes that involve local communities. It will also establish grievance redress mechanisms and promote community-based conflict resolution strategies. Traditional and local authorities will be engaged in resource governance to ensure that project activities align with local needs and customs.	UNIDO

C. Environmental and social risk management

The project has been screened against the 15 Environmental and Social Principles of the Adaptation Fund, in accordance with the Adaptation Fund Environmental and Social Policy, the Adaptation Fund Gender Policy, UNIDO Environmental and Social Safeguards Policy and Procedures, and applicable Philippine laws and regulations. The screening produced generated two assessments that form the basis for the environmental and social risk management: i. the Environmental and Social Impact Assessment with an Environmental and Social Management Plan; and ii. The Gender Assessment with a Gender Action Plan. They provide the detailed assessment of potential environmental and social risks, mitigation measures, monitoring requirements, institutional responsibilities, stakeholder engagement arrangements, The table below summarises their main findings, the instruments for compliance and mitigation, and the respective responsibility for their implementation.

E&S risk management instrument	Main findings	Measures for compliance	Responsibility
ESMP/ESMF	The assessment confirmed the project as Category B: potential adverse environmental and social impacts are expected to be limited, site-specific, largely reversible and manageable through established mitigation measures. The principal environmental sensitivities relate to site selection and climate/geohazard exposure. Several candidate sites are susceptible to flooding, liquefaction, lahar, severe winds or landslides. The main potential impacts arise from the construction and operation of the ADAPT Centres and demonstration farms, including land-access issues, vegetation disturbance, soil erosion and sedimentation, waste and wastewater generation, agrochemical use, energy consumption, and occupational and community health and safety risks. Key social risks include unequal access to project benefits by women, Indigenous Peoples, persons with disabilities, youth and poorer farmers. Activities within ancestral domains will require culturally appropriate consultation and applicable NCIP/FPIC processes, while activities causing involuntary resettlement, livelihood displacement or impacts on critical habitats are to be excluded.	• Apply the Environmental and Social Management Framework (ESMF) to Unidentified Sub-Projects (USPs), using the Exclusion List, site-validation checklist, environmental and social risk categorization, and proportionate assessment requirements before approval. • Implement the site-specific Environmental and Social Management Plan (ESMP) and Environmental and Social Monitoring Plan, with mitigation measures incorporated into technical designs, bidding documents, contracts, grant agreements and operating procedures. • Prepare and implement dedicated management instruments, as applicable, including the Indigenous Peoples Plan (IPP) and FPIC/Certification Precondition requirements, Solid Waste Management Plan (SWMP), Hazardous Waste Management Plan (HWMP) and Chance Find Procedure. • Apply the Stakeholder Engagement Plan (SEP), information-disclosure procedures and the project-level Grievance Redress Mechanism (GRM), complemented by the worker GRM, UNIDO grievance channels and the Adaptation Fund's Ad Hoc Complaint Handling Mechanism. • Where the main potential impacts arise, implement the compliance dedicated	• UNIDO retains overall safeguards oversight, quality assurance and accountability to the Adaptation Fund, including review of safeguards performance and compliance reports. • The PMU Environmental, Gender and Social Safeguards Specialist coordinates day-to-day screening, implementation and monitoring of the ESMF, site-specific ESMPs, Environmental and Social Monitoring Plan, IPP, SEP and GRM, including contractor and grant-beneficiary compliance, incident reporting and corrective actions. • Executing entities with the support of participating LGUs and cooperatives implement site-level mitigation and monitoring measures, secure permits and clearances, and implement the SWMP and HWMP during facility and demonstration-farm operation. • Contractors and service providers implement construction-related ESMP requirements, including waste and hazardous-material management, OHS, community safety, pollution control, emergency procedures and the Chance Find Procedure. • MinDA supports inter-agency and LGU coordination; the GISAC advises on social safeguards, inclusion, Indigenous Peoples and grievance resolution; NCIP and Indigenous Peoples' leaders

		activities. For the ADAPT Centres, A2.2.1.1, A2.2.2.1, A2.2.2.2. For the demo-farming plots, A3.1.2.1 and A3.1.2.2.	support IPP and FPIC processes; and any archaeological chance find is referred to the National Museum.
GAP	Women's contribution to the fruits and vegetables value chain is substantial but insufficiently recognized. Women play central roles in planting, harvesting, post-harvest handling, processing, bookkeeping, marketing and household financial management, yet much of this work is unpaid, informal or not reflected in farmer registration and beneficiary systems. Participation does not translate into equal decision-making power or control over assets. Women are active in cooperative meetings and often hold administrative positions, but men remain more likely to control land, machinery, farm investment and production decisions and to dominate cooperative boards. Women's participation is further constrained by care responsibilities, workload, transport, time and information barriers. Climate impacts intensify existing gender inequalities. Women absorb increased unpaid care, food-security and household-recovery responsibilities following droughts, floods and crop losses, while their post-harvest roles expose them to deteriorated produce and agrochemical residues. Indigenous women, female-headed households, older women and young women face compounded barriers related to poverty, land and registration status, distance from services, cultural norms and limited institutional representation. Without deliberate safeguards, project benefits could reinforce existing inequalities. Key risks include training women without engaging those who control farm decisions, increasing women's workload, male-dominated	- Implement the Gender Action Plan (GAP) across all project outputs, with women representing at least 40 per cent of direct beneficiaries and women's representation promoted toward the 40–60 per cent parity range in FVVC Technical Working Groups and ADAPT Centre management arrangements. Participation measures will address timing, advance notice, transport, childcare, workload, language, mobility and cultural barriers. - Apply gender and inclusion screening through the ESMF before approval of ADAPT Centres, demonstration-farming packages and USPs. Screening and beneficiary-selection criteria will explicitly cover women, Indigenous women, female-headed households, youth, older farmers and persons with disabilities. The GISAC will review inclusion and benefit-sharing and endorse CRA Business Plans before grant-supported activities proceed. - Integrate gender requirements into technical and operational instruments, including gender-responsive ADAPT Centre design and procurement, consultation with women post-harvest workers on layout, equipment, seating, lighting, sanitation and safety, and gender-responsive finance-readiness and investment-screening tools that reflect women's roles in budgeting, record-keeping, loan processing and marketing. - Use gender-sensitive disaggregated monitoring, a gender risk register, corrective outreach and a gender-responsive GRM with trusted local entry points, confidential reporting, survivor-centred channels and referral pathways for GBV/SEA/SH complaints. Compliance will also include GBV/SEA/SH prevention training,	- UNIDO, as Implementing Entity: retains overall legal, fiduciary and safeguards accountability; oversees compliance with the Adaptation Fund Gender Policy; reviews GAP, ESMP and GRM performance; validates gender-disaggregated monitoring and corrective actions; and reports to the Adaptation Fund. - PMU and Environmental, Gender and Social Safeguards Experts: coordinate day-to-day GAP implementation, screening, monitoring, grievance handling and corrective outreach. - GISAC and PSC: GISAC provides technical advice and endorsement on inclusion and benefit-sharing, while the PSC reviews gender performance and corrective actions. - Executing Entities with the support of LGUs, cooperatives and service providers: implement and report on the GAP measures applicable to their activities.

	control of ADAPT Centre assets and services, exclusion of women lacking land titles or formal registration, occupational-health and GBV/SEA/SH risks, and displacement of women's income-generating work through labour-saving technology.	UNIDO panel-parity requirements and annual documentation of gender results and lessons.	
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D. Monitoring and evaluation arrangements

ADAPT Mindanao will monitor whether project activities are producing verifiable adaptation results for the intended beneficiaries and institutions. Monitoring will track progress against the project Results Framework and the Adaptation Fund Results Framework, including Adaptation Fund core indicators where applicable. Relevant indicators will be disaggregated by sex, youth status, Indigenous Peoples status, disability status, beneficiary type, cooperative, municipality, province and region, where applicable. For ADAPT Centre services, monitoring will record who uses the services, which services are used, how often they are used, whether user conditions are affordable and transparent, whether women and vulnerable groups face practical barriers.

The project's initial evidence base comprises the CRVA, the DBS, the GA/GAP, and ESIA/ESMP. During inception, the PMU will prepare the M&E Manual and the Baseline Data Report. The M&E Manual will define indicator protocols, data sources, collection frequency, reporting templates, disaggregation requirements, field verification procedures, data quality checks, safeguards and gender reporting requirements, GRM tracking, and escalation procedures for delayed delivery, safeguards non-compliance, unresolved grievances or underperformance against targets. The Baseline Data Report will validate baseline values, confirm targets requiring finalization, and establish survey instruments to be repeated at mid-term and completion.

UNIDO, as Implementing Entity, retains responsibility for supervision, quality assurance, Adaptation Fund reporting, evaluation oversight, and compliance with the Environmental and Social Policy and Gender Policy. UNIDO will review the M&E Manual, Baseline Data Report, annual PPR inputs, safeguards and gender reporting, Mid-Term Evaluation, Final Evaluation and Project Completion Report. UNIDO will also ensure that independent evaluation functions financed through the IE fee remain separate from PMU execution functions. The PMU will carry out day-to-day monitoring and reporting. The Monitoring and Evaluation Specialist will lead the M&E Manual, indicator database, beneficiary registry, reporting calendar, survey instruments, means-of-verification checks, data-quality review, quarterly monitoring consolidation, semi-annual progress reporting, annual PPR inputs, and evidence packages for the Mid-Term Evaluation, Final Evaluation and Project Completion Report. The M&E Specialist will also coordinate with MinDA, LGUs, cooperatives, technical service providers, contractors and grant recipients to ensure timely submission of records and supporting evidence.

The Environmental, Gender and Social Safeguards experts will monitor implementation of the ESMP and GAP, including safeguards screening of site-specific activities and Unidentified Sub-Projects; contractor and service-provider compliance; occupational and community health and safety; waste, wastewater, drainage, agrochemical, soil and land-related risks; Indigenous Peoples engagement and FPIC-related requirements where applicable; labour conditions; gender and inclusion measures; and grievance resolution. The experts will work with the M&E Specialist to ensure that safeguards, gender and GRM findings are reflected in quarterly monitoring, annual PPRs, MTE inputs and completion reporting. The Regional Coordinator will support site-level monitoring in coordination with MinDA, LGUs, cooperatives and local stakeholders, including field

verification, collection of local records, follow-up on training and consultation outputs, documentation of ADAPT Centre use, monitoring of CRA Demo Farming sites, and validation of issues raised by beneficiaries. The Regional Coordinator will ensure that site-level findings are reported to the PMU and considered in annual work planning. The Agro-Industrial Resilience Project Lead will review technical evidence generated under LEAD, PROCESS and INVEST, including evidence on climate-risk-informed planning, ADAPT Centre readiness and operation, post-harvest technologies, shared-service models, CRA Business Planning, CRA Demo Farming and grant-supported investments. The Project Lead will advise the PMU on technical adjustments where monitoring shows delivery delays, weak service use, O&M gaps, insufficient adaptation benefits or technical design issues. The Communications and Knowledge Management Specialist will document implementation lessons and beneficiary feedback, including local-language communication, learning notes, technical validation packages, knowledge products and visibility materials. Monitoring findings will therefore feed both project management and the SCALE output track, including documentation relevant to the Mindanao FVVC Adaptation Action Plan.

MinDA will support regional coordination, site-level validation, engagement with LGUs and cooperatives, and use of monitoring findings in regional planning and the Mindanao FVVC Adaptation Action Plan. Contractors, service providers and grant recipients will provide implementation records, technical reports, commissioning records, safeguards documentation, and financial documentation, as applicable.

The Project Steering Committee (PSC) will review annual workplans, progress against targets, financial delivery, safeguards and gender performance, GRM trends, risk-register updates and corrective actions. The PSC will be supported by TSAC and GISAC as detailed in the A. Project implementation arrangements section. Monitoring will be consolidated quarterly by the PMU. Semi-annual reviews will assess delivery progress, procurement, financial implementation, safeguards and gender performance, GRM status, risks and corrective actions. Annual reports will feed into the Adaptation Fund PPR and will include progress against the Results Framework, financial implementation, procurement status, ESMP/ESMF implementation, GAP implementation, GRM performance, risk management, lessons learned and required changes to the following Annual Work Plan and Budget.

In line with the AF Evaluation Policy, a Mid-Term Review (MTR) will be carried out at project midpoint. It will assess project performance and context to inform project management decision-making and course correction during the remaining implementation period. UNIDO will submit a management response to the MTR report to the Secretariat within six months of receiving the MTR, describing what, why, and how MTR learning will be utilized. A Terminal Evaluation (TE) will be carried out to assess the project performance and impact to support learning and accountability and inform future climate adaptation interventions. In line with the AF Evaluation Policy, UNIDO will commission an independent TE to be submitted to the AF Secretariat and the Philippines Designated Authority within nine months of project completion. The Project Completion Report (PCR) will consolidate the final results, financial delivery, safeguards and gender performance, GRM records, sustainability measures and lessons for replication and scale-up.

Table 8 - Budgeted M&E activities plan

M&E activity	Responsibility	Timeframe	Budget				
			EE Fee	IE Fee	Technical		
Meetings and Workshops							
Inception workshop, including M&E Management Plan induction, ESMPs/GAC/GRM set-up	UNIDO	Within six months of the first disbursement	10,000				
Project coordination meetings	MinDA/EE	Quarterly	50,000				

Project Steering Committee (PSC) meetings, including GISAC and TSAC	UNIDO	Semi-annual	50,000			
Monitoring and Reporting						
Monitoring expertise with collection and consolidation of quarterly project data, including support for the Mid-term Review and Terminal Evaluation	UNIDO	Throughout the project duration	70,000		50,000	
Baseline Data Report (BDR), including disaggregated baseline for the project SRF indicators used in the Project Results Framework and the GAP.	UNIDO	No later than the 1 st PPR ³²	10,000			
Inception Report (IR)	UNIDO	1 month after the inception workshop ³³	2,000			
Project records consolidation and coordination, including monitoring of GAP/ESMP implementation for safeguards compliance	UNIDO/MinDA/EE	Quarterly	203,000			
Annual Project Performance Reports (PPRs), including Project Completion Report (PCR)	UNIDO/MinDA/EE	Annually ³⁴	20,000			
Project Completion Summary (PCS), with collection and consolidation of data in line with disaggregated baseline indicators used in the Project Results Framework and the GAP.	UNIDO	Within 6 months after the PCR ³⁵	10,000			
Quality control performed by UNIDO staff of EIO/IEU - Mid-term Review (MTR) conducted semi-independently as per the AF Evaluation Policy	UNIDO	Within six months of the mid-point of implementation		20,000		
Quality control performed by UNIDO staff of EIO/IEU - Mid-term Review IE management response to the MTR	UNIDO	Within 6 months of receiving the MTR ³⁶		5,000		
Evaluation						
Quality control performed by UNIDO staff of EIO/IEU Terminal Evaluation	UNIDO	Submitted to the AF within 9 months after project completion		30,000		
Total			425,000	55,000	50,000	

E. Project Results Framework

			Target		
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³² In accordance with the AF Evaluation Policy (2022).

³³ In accordance with the AF Standard Legal Agreement.

³⁴ As per the AF guidelines and SLA, the PPR should be submitted on a rolling basis, starting one year after the start of project implementation (date of inception workshop) and no later than two (2) months after the end of the reporting year. The last PPR should be submitted six (6) months after project completion, which will be considered the project completion report PCR.

³⁵ As per the AF guidelines, the final project performance report (PPR) is considered as a project completion report (PCR).

³⁶ In accordance with the AF Evaluation Policy.

Expected Results	Indicators	Baseline	MTR	TE	Means of Verification	Assumptions
Objective 1 [Vulnerability: Adaptive Capacity] Enhance the adaptive capacity of communities and their livelihoods by strengthening locally led adaptation action through the institutional capacities of local government units, small and micro cooperatives, farmers associations and smallholder farmers in the fruits and vegetables value chain.	O1 – I.1 Percentage and number of targeted LGU/Barangays officials linked to LCCAP and FVVC most vulnerable actors demonstrating improved capacity to integrate climate risk into PPAs and implement locally led community-based adaptation actions targeting FVVC resilience. <i>Denominator: 1,400 which is the total number of DBs of component 1. Specific targets as a share of the total: F: 30%, PWD: 3%; IP: 15%; Youth: 20%</i>	Total: 0	50% / 700	70% / 980	Pre/post capacity assessment tools and results; practicum outputs; participant completion records; records of PPA formulation, endorsement or operational follow-through, where applicable; local planning, validation or meeting records; disaggregated participant registry; project M&E reports.	- Targeted LGU/barangay officials and FVVC actors remain sufficiently engaged in their institutional, cooperative or community roles to apply the capacity developed. - Local planning and budgeting processes remain open to the integration of climate-risk information and FVVC adaptation priorities. - Existing local governance arrangements allow trained actors to contribute meaningfully to PPAs and community-based adaptation actions. - Turnover, reassignment, political transition or competing institutional duties do not substantially weaken the local adaptation capacity built by the project.
	O1 – I.2: Percentage and number of targeted FVVC most vulnerable actors reporting awareness and increased meaningful participation in local processes that address key climate impacts, hazards and risks affecting their communities. <i>Denominator: 11,000, which is the total number of DBs. Specific targets as a share of the total: F: 30%, PWD: 3%; IP: 15%; Youth: 20%</i>	Total: 0	50% / 5,500	75% / 8,250		
		Female: 0	50% / 2,200	75% / 2,475	Baseline, mid-term and terminal beneficiary surveys; community participation and feedback tools; attendance records from consultations, validation meetings, learning sessions and local adaptation planning processes; FGD/KII records, where applicable; grievance, feedback and participation records; disaggregated beneficiary registry; project M&E reports.	- Targeted FVVC actors, including women, youth, Indigenous Peoples, PWD and other vulnerable groups, are able and willing to participate in local adaptation processes. - Participation modalities remain accessible in terms of location, timing, language, information format and social inclusion requirements. - Local authorities, cooperatives and community structures provide sufficient space for vulnerable FVVC actors to express priorities and influence adaptation-related decisions. - Participation in project-supported local processes is not substantially disrupted by extreme weather events, agricultural labour cycles, caregiving responsibilities, security conditions or mobility barriers affecting targeted vulnerable actors.
		PWD: 0	50% / 115	75% / 250		
		IP: 0	50% / 825	75% / 1,240		
		Youth: 0	50% / 1,100	75% / 1,650		

³⁷ In line with Republic Act No. 8044, youth in the Philippines refers to persons aged 15–30. The project will apply an operational definition focused on core youth and adult youth, corresponding to persons aged 18–24 and 25–30, respectively, consistent with Philippine youth statistical classifications.

	O1 – I.3: Number of local, subnational, sectoral, planning, investment, budgeting or decision-making instruments³⁸ that incorporate project-supported fruits and vegetables value-chain adaptation priorities.	0	2	5	Approved, endorsed or updated CLUPs, CDPs, LDIPs, AIPs and ELAs; official LGU records, resolutions, minutes or endorsement documents; LCCAP-linked FVVC adaptation packages; records showing incorporation of FVVC adaptation priorities into PPAs or investment programming; project technical assistance records; project M&E reports.	• Relevant LGUs remain willing to consider project-supported FVVC adaptation priorities in formal planning, investment and programming instruments. • Planning cycles, review processes and approval timelines allow project-supported priorities to be reflected within the implementation period. • Project-supported evidence, adaptation packages and technical inputs are sufficiently practical and aligned with LGU mandates to inform local planning instruments. • Changes in local leadership, budget ceilings or planning requirements do not prevent the incorporation of agreed FVVC adaptation priorities into relevant local instruments.
Objective 2 [Vulnerability: Adaptive Capacity/Sensitivity] Reduce the vulnerability of small and micro cooperatives in the fruits and vegetables value-chain to climate variability by improving access to their members to finance, climate information services (CIS), and adaptation solutions, strengthening climate-risk-informed business planning and investment, and supporting the transition to climate-resilient agricultural systems with lower climate sensitivity.	O2 – I.1 Percentage-point reduction from baseline in the proportion of targeted cooperative-based FVVC actors relying on above commercial market interest rates, tied, or distress-driven financing and marketing arrangements to cope with climate-related production and post-harvest risks.	To be confirmed on Baseline Report	5%	15%	Baseline, mid-term and terminal beneficiary surveys; cooperative member finance and marketing profiles; cooperative records on input financing, production advances, buyer/trader arrangements and produce marketing channels; CRA Business Plans and adaptation investment packages; ADAPT to Market records; ADAPT Centre service-use records, where relevant; finance-actor engagement records; concessional/rural finance referral or application records, where available; project M&E reports.	• Targeted cooperative-based FVVC actors are willing to disclose financing and marketing arrangements on a voluntary basis and without protection risks. • Prevailing commercial market rates can be reasonably established at baseline, MTR and TE using appropriate local reference points. • Affordable formal, cooperative, rural or concessional finance options remain sufficiently available for at least some targeted actors during the project period. • ADAPT Centre services, ADAPT to Market activities, CRA Business Planning and finance-actor engagement generate practical alternatives that reduce the need for distress-driven borrowing or tied marketing arrangements. • Climate shocks, market disruptions, crop losses or major price volatility do not substantially increase short-term dependence on adverse financing or marketing arrangements beyond the project's ability to influence.
	O2 – I.2 Percentage increase in crop productivity among targeted smallholder farmers applying inclusive climate-resilient agriculture practices and technologies.	Site-specific baseline confirmed in Baseline Report	5%	15%	Baseline, mid-term and terminal productivity surveys; farm records; cooperative production records; CRA Demo Farming records; field monitoring reports; crop-cutting or harvest records, where feasible; technical validation reports; extension or technical accompaniment records; project M&E reports.	• Targeted farmers are willing and able to apply project-supported CRA practices during relevant production cycles. • Inputs, technical support, labour and seasonal conditions allow correct application of CRA measures. • Promoted CRA practices remain suitable to site-specific crop, soil, water and climate-risk conditions. • Extreme weather, pest and disease outbreaks, input shortages or market disruptions do not substantially distort productivity results.

³⁸ Including, as relevant, LCCAP/eLCCAP, CLUP, CDP, LDIP, AIP, ELA, DRRM plans, GAD Plan and Budget/GPB, PDPFP, PDIP, RDP, RDIP, DA-HVCDP workplans, RDC resolutions

	O2 – I.3: Percentage and number of targeted beneficiaries reporting increased income through either gains in farm productivity or agro-industrial value addition.³⁹ <i>Denominator: 2,200 which is the total number of DBs of the ADAPT to Market and ADAPT to FARM. Specific targets as a share of the total: F: 30%, PWD: 3%; IP: 15%; Youth: 20%</i>	Total: 0 Female: 0 PWD: 0 IP: 0 Youth: 0	10% / 220 10% / 66 10% / 6 10% / 33 10% / 44	50% / 1,100 50% / 330 50% / 33 50% / 165 50% / 220	Baseline, mid-term and terminal beneficiary income surveys; cooperative production and sales records; farm records; ADAPT Centre service-use records; ADAPT to Market records; value-addition demonstration records; CRA Demo Farming records; buyer/processor feedback records; cooperative business-development records; project M&E reports.	• Targeted beneficiaries are willing and able to report income changes on a voluntary basis. • ADAPT Centre services, ADAPT to Market activities and CRA Demo Farming are implemented early enough to generate observable income effects by TE. • Productivity gains, reduced losses, improved quality or value-addition outputs can be translated into actual income gains under local market conditions. • Climate shocks, pest and disease outbreaks, price volatility or market disruptions do not substantially offset income gains generated through project-supported adaptation interventions. • Income changes are assessed using comparable baseline and follow-up methods, recognizing that attribution may require triangulation with cooperative, production, sales and service-use records.
Objective 3 [Hazards and Exposure] Reduce the exposure of smallholder farmers' productive assets to climate hazards in the fruits and vegetables agro-industry in Mindanao by expanding access to climate-resilient agriculture infrastructure and solutions for production, storage, and processing.	O3 – I.: Percentage and number of targeted beneficiaries reporting improved protection of critical livelihood assets through access to project-supported climate-resilient production, storage, post-harvest, processing, and climate information services (CIS). <i>Denominator: 2,200, which is the total number of DB targeted by ADAPT to FARM. Specific targets as a share of the total: F: 30%, PWD: 3%; IP: 15%; Youth: 20%</i>	Total: 0 Female: 0 PWD: 0 IP: 0 Youth: 0	20% / 440 20% / 132 20% / 13 20% / 66 20% / 88	60% / 1,320 60% / 396 60% / 40 60% / 198 60% / 264	Baseline, mid-term and terminal beneficiary surveys; ADAPT Centre user registry and service-use records; cooperative records; CIS dissemination/access records; production, storage, post-harvest handling and processing service logs; CRA Demo Farming records, where relevant; beneficiary feedback forms; FGD/KII records; field monitoring reports; project M&E reports.	• Project-supported production, storage, post-harvest, processing and CIS-related services become operational early enough to generate observable protection benefits. • Targeted beneficiaries are able and willing to access the supported infrastructure and services, including through cooperative-mediated arrangements. • CIS and service-use information are timely, locally relevant, understandable and actionable for smallholders, cooperatives and other FVVC actors. • Climate shocks, logistics disruptions, pest and disease outbreaks, security conditions or market disruptions do not substantially prevent access to project-supported services. • Beneficiaries are willing to report perceived protection benefits voluntarily, and self-reported results can be triangulated with service-use, cooperative and field-monitoring records.

³⁹ New products/processes or services with BRL/TRL advanced with project support.

	O3 – I.2 Number and percentage of targeted beneficiaries with new or improved access to project-supported climate-resilient production, storage, post-harvest, processing, and climate information services (CIS). <i>Denominator: 11,000, which is the total number of DB. Specific targets as a share of the total: F: 30%, PWD: 3%; IP: 15%; Youth: 20%</i>	T: 0 F: 0 PWD: 0 IP: 0 Y: 0	30% / 3,300 30% / 990 30% / 99 30% / 495 30% / 660	80% / 8,800 80% / 2,640 80% / 264 80% / 1,320 80% / 1,760	ADAPT Centre user registry and service-use records; cooperative member and user records; CIS dissemination/access records; production, storage, post-harvest handling and processing service logs; beneficiary surveys; operator reports; CRA Demo Farming records, where relevant; field monitoring reports; project M&E reports.	• Project-supported infrastructure and CIS-related services become operational early enough to expand access during the project period. • Cooperatives and operators maintain inclusive and affordable access arrangements for targeted beneficiaries. • Targeted beneficiaries are able and willing to use services directly or through cooperative-mediated arrangements. • Services remain relevant to site-specific crop, climate-risk and value-chain needs. • Climate shocks, logistics disruptions, power interruptions, market disruptions or security conditions do not substantially prevent beneficiary access.
Component 1. LEAD – Local Empowerment for Adaptation Decision Making						
Outcome 1 [LOCALLY LED ADAPTATION SYSTEM] Strengthened capacity, coordination, and enabling environment for locally led adaptation in Mindanao's fruits and vegetables value chains, enabling nationally identified adaptation priorities to be cascaded into locally implemented action and reflected in longer-term regional planning and investment.	OC1 - Indicator 1⁴⁰ Percentage and number of targeted representatives of local leadership and FVVC actors demonstrating improved capacity to assess climate risks, identify local adaptation priorities, and engage in project-site adaptation planning and leadership functions.	0 Total Female Youth PWD: IP:	65% 715 / 65% 215 / 65% 140 / 65% 20 / 65% 110 / 65%	85% 935 / 85% 280 / 85% 180 / 85% 30 / 85% 140 / 85%	LEAD competency framework; pre/post capacity assessment tools and results; practicum outputs; participant completion records; training reports; participant feedback; site-level learning documentation; disaggregated participant registry. Project M&E reports.	• Trained actors remain sufficiently engaged in their LGUs, cooperatives, farmer associations or FVVC roles to apply the capacity developed. • Local institutional settings allow trained actors to participate meaningfully in adaptation planning and leadership functions after training. • Turnover, reassignment or competing institutional duties do not substantially weaken the trained local adaptation cohort.
	OC1-I.2 GGA 10(c)(a), adapted; Number of FVVC sectorial planning, investment, or decision-making instruments in targeted Mindanao regions (X, XI, XII) integrating project-supported climate risk and adaptation	0	1	3	Approved or endorsed plans, roadmaps, feasibility studies, investment frameworks, guidelines, and official records of adoption or use; project reports.	Relevant institutions are willing to use project-supported evidence and planning products in formal decision-making processes.

⁴⁰ AF Outcome Indicator 2.1, adapted; aligned with GGA 10(a)(g):

	priorities.					
	OC1-I.3 - Indicator 3⁴¹: Number of project-site LCCAP-linked FVVC adaptation packages with PPAs under implementation with traceable adaptation benefits.	0	2	4	LEAD Experience Programme completion package; project- site LCCAP-linked FVVC adaptation packages; project M&E reports; local validation, endorsement or meeting records from relevant project- site governance arrangements, where applicable. Project M&E reports.	- Existing local governance and leadership arrangements remain available as practical entry points for facility-linked adaptation action. - Relevant LGU offices, MAOs, cooperatives and local actors remain engaged in following through on agreed site packages. - Endorsed enabling actions remain feasible within local mandates and project-supported scope, without implying dependence on LGU co-financing. - Local endorsement processes preserve the climate-resilience and inclusion purpose of the adaptation packages.
Output 1.1 [LEARN & EXPERIENCE] Local leadership, targeted FVVC actors, and existing project-site governance arrangements enabled through the LEAD to ADAPT Programme to assess climate risks, define adaptation priorities, and steer the preparation and operationalization of LCCAP-linked FVVC adaptation packages.	OP1.1- Indicator 1 Number of targeted local leadership and FVVC actors completing the full LEAD to ADAPT Learning Programme cycle.	Total: 0 F: 0 Y: 0 PWD: 0 IP: 0	1,100 330 220 33 165	1,100 330 220 33 165	LEAD to ADAPT Learning Programme package; training delivery reports; attendance and completion records; disaggregated participant registry; project M&E reports.	- Selected participants are released by their institutions, cooperatives or organizations to complete the full learning cycle. - Training schedules and delivery modalities remain accessible to women, IPs, PWD, youth and other targeted actors. - Participants complete both the learning and applied/practicum elements needed to prepare them for site-level adaptation planning functions.
	OP1.1 - Indicator 2: Number of project sites with LCCAP- linked FVVC adaptation packages defined and endorsed through existing local governance and leadership arrangements.	0	2	4	LEAD Experience Programme records; project-site LCCAP- linked FVVC adaptation packages; local validation, endorsement or meeting records from relevant project- site governance arrangements, where applicable; project M&E reports.	- Existing local arrangements can be convened without creating parallel structures. - Local actors can reach practical agreement on priority enabling actions linked to the shared service facility. - Facility-linked adaptation packages remain sufficiently specific to guide operational follow-through.
	OP1.1 - Indicator 3: Number of priority PPAs or enabling actions under project- site LCCAP-linked FVVC adaptation packages endorsed and supported for operationalization through existing local governance and leadership arrangements.	0	10	10	LEAD Experience Programme completion package; project- site LCCAP-linked FVVC adaptation packages; records of endorsed priority PPAs or enabling actions; project M&E reports; local validation, endorsement or meeting records from relevant project- site governance arrangements, where applicable	- Existing local arrangements can be convened without creating parallel structures. - Local actors can agree on a manageable set of priority PPAs or enabling actions linked to the shared service facility. - Agreed PPAs or enabling actions remain within local mandates and project-supported scope. - Local operational responsibilities remain active long enough to support follow-through and documentation.

⁴¹ GGA 10(c)(a), adapted; aligned with AF Output Indicator 2.1.2, adapted:

Output 1.2 [SCALE]: Mindanao FVVC Adaptation Action Plan for 2030–2050 developed , supported by climate risk assessments, technology needs assessments, investment roadmaps, toolkits, sector-specific guidelines, and feasibility assessments for priority fruits and crops.	OP1.2 - Indicator 1 Number and type of core technical and decision-support products completed as part of the Mindanao FVVC Adaptation Action Plan and climate-risk-informed investment package.	0	5	7	Mindanao FVVC Adaptation Action Plan and supporting investment package; methodology and evidence framework; consolidated evidence base; technology needs assessments; feasibility assessments; investment roadmaps; toolkits and sector-specific guidelines; validation records; project M&E reports.	• Required local, sectoral and climate-risk evidence can be consolidated into a coherent regional FVVC adaptation package within the project timeline. • Participating LGUs, sector actors and FVVC stakeholders provide sufficient inputs to ground the products in site realities. • Private sector actors, including buyers, processors, service providers or potential investors, are willing to engage in the feasibility, roadmap and investment-prioritization process. • The completed package remains practical enough to inform future planning, investment prioritization and scaling discussions.
2. PROCESS – Post-harvest Climate Resilient Centres for Shared Services						
Outcome 2 [CLIMATE-RESILIENT SHARED SERVICE SYSTEM] Adaptive capacity and livelihood resilience of communities, small and micro cooperatives, farmers associations and smallholder farmers are strengthened through access to and use of climate-resilient shared service infrastructure, operational know-how, and value-addition and market-support functions in fruits and vegetables value chains.	OC2 - I.1 Number and percentage of targeted fruits and vegetables value-chain actors directly accessing at least one project-supported ADAPT Centre service.	Total: 0 Female: 0 Youth: 0 PWD: 0 IP: 0	0 0 0 0 0	8,800 / 80% 2,640 / 80% 1,760 / 80% 265 / 80% 1,320 / 80%	ADAPT Centre operation and service-use records; user registry; cooperative records; ADAPT Centre start-up and operational reports; project M&E reports.	• ADAPT Centres are commissioned early enough to allow targeted users to access services during the project period. • Targeted users, strategic cooperatives and centre-linked actors remain willing and able to use the services once available. • Operating arrangements remain functional and affordable enough to support repeated service access. • Climate, market, logistics or security disruptions may affect throughput and timing, but do not prevent sustained use of the centres.
	OC.2 - I.2 Number and percentage of targeted ADAPT to Market and centre-linked actors applying project-supported post-harvest, value-addition, or climate-informed service-use skills in their livelihoods, cooperative operations, or centre-related activities.	Total 0 Female: 0 Youth: 0 PWD: 0 IP: 0	660 / 60% 200 / 60% 132 / 60% 20 / 60% 100 / 60%	880 / 80% 265 / 80% 176 / 80% 25 / 80% 130 / 80%	ADAPT to Market completion package; practicum and centre-use records; ADAPT Centre service-use records; cooperative records; participant follow-up survey or application checklists; project M&E reports.	• ADAPT Centres become available in time for trained actors to apply acquired skills in practical service-use settings. • Targeted users and strategic cooperatives have sufficient produce, throughput and operational incentives to apply post-harvest and value-addition practices. • Market and cooperative conditions allow applied skills to translate into value retention, livelihood strengthening or diversification opportunities. • Climate-informed service-use practices remain practical for users and operators under site-specific centre conditions.

Output 2.1 [LEARN & EXPERIENCE] Crop-specific ADAPT to Market Programme delivered, strengthening the readiness of smallholder farmers, cooperatives, and targeted fruits and vegetables value-chain (FVVC) actors to use ADAPT Centres as climate-resilient shared service and market interface platforms for aggregation, post-harvest handling, value addition, and structured engagement with buyers and processors.	OP2.1 - Indicator 1 Number of targeted beneficiaries completing the full ADAPT to Market Learning Programme cycle. <i>Denominator: 1,100, which is the total number of DB. Specific targets as a share of the total: F: 30%, PWD: 3%; IP: 15%; Youth: 20%</i>	T: 0 F: 0 Y: 0 PWD: 0 IP: 0	1,100 330 200 33 165	1,100 330 200 33 165	ADAPT Centre Learning Programme package; training delivery reports; attendance and completion records; practicum records; disaggregated participant registry; project M&E reports.	• Target participant groups can be identified and mobilized in line with the service profile of each ADAPT Centre. • Training schedules and modalities are compatible with agricultural calendars, cooperative operations and accessibility needs. • Strategic cooperatives, operators and centre-linked actors remain engaged through both learning and hands-on application. • The learning programme remains closely linked to actual ADAPT Centre services, rather than becoming generic post-harvest training.
	OP2.1 - Indicator 2 Number of crop-specific 'ADAPT to Market' activities delivered to support cooperative market access and value-chain linkages, disaggregated by crop, project site and type of engagement.	0	8	20	ADAPT to Market activity reports; seminar and market-engagement records; buyer/processor engagement records; technical partner or university/SUC participation records, where applicable; cooperative business-development records; disaggregated participant registry; project M&E reports.	• ADAPT Centres, strategic cooperatives and trained users are sufficiently ready to support crop-specific market-access activities. • Buyers, processors, technical partners, universities/SUCs or relevant sector actors are willing to engage with cooperatives and provide practical feedback or technical inputs. • Priority crop opportunities remain relevant to site-specific climate risks, ADAPT Centre service profiles and cooperative production realities. • Market engagement strengthens cooperative readiness without the project assuming guaranteed purchase agreements.
	OP2.1 - Indicator 3 Number of crop-specific ADAPT to Market briefs completed, documenting value-addition models, market feedback and market-readiness lessons for selected priority crops.	0	2	5	ADAPT to Market briefs; crop-specific demonstration records; buyer/processor feedback summaries; technical partner inputs, where applicable; cooperative business-development notes; scale-up inputs for Component 3; project M&E reports.	• Market-access activities generate sufficient practical evidence to document crop-specific value-addition and market-readiness lessons. • Cooperatives can translate market and technical feedback into practical improvements in handling, value addition, packaging, quality or market positioning. • Completed briefs remain useful for Component 3 finance-readiness, CRA Business Planning and future replication.
Output 2.2: ADAPT Centres established, upgraded, and operationalized in targeted project sites as climate-resilient shared service platforms that expand and institutionalize access to aggregation, post-harvest handling, storage, processing,	OP2.2- Indicator 1 Number of ADAPT Centres established, equipped, commissioned and placed into initial operation in targeted project sites.	0	2	4	ADAPT Centre investment preparation and compliance packages; procurement and contract records; construction/rehabilitation and equipment completion records; commissioning and handover records; ADAPT Centre start-up reports; project M&E reports.	• Site-specific feasibility, ESS, permitting, utility and procurement requirements can be completed without major unresolved constraints. • Works, equipment, utilities and service arrangements can be delivered within the implementation schedule. • LGUs, MAOs, strategic cooperatives and operating partners remain engaged in establishing practical operating arrangements. • Final site calibration preserves the adaptation purpose of the centres and avoids overbuilding beyond local operating capacity.

value-addition, and other locally relevant adaptation support functions in FVVC.						
3. INVEST – Inclusive Financing for Vegetables and Fruits Value-Chain Enhancement and Sustainable Transformation						
Outcome 3: Adaptive capacity and on-farm climate resilience of Small and Micro Cooperatives and their members are strengthened through access to and application of climate-resilient agriculture solutions, climate-risk-informed business planning, and improved alignment of rural finance and concessional capital, reducing dependency on high-interest rates and debt-inducing market conditions	OC3 – I.1: Number of targeted cooperatives and number/percentage of beneficiaries applying climate risk-informed business planning skills in their farm production, diversified livelihood decision-making and/or reporting reduced reliance on high-interest or adverse financing and marketing arrangements following project-supported climate risk-informed business planning.	SMCs: 0 T: 0 F:0 Y: 0 PWD: 0 IP: 0	2 660 / 30% F: 198 Y: 132 PWD: 20 IP: 100	4 1540 / 70% F: 462 Y: 308 PWD: 46 IP: 230	Demo farming records; grant implementation reports; Field monitoring reports; Cooperative records; M&E reports.	Supported cooperatives and beneficiaries have timely access to the land, inputs, labor, and seasonal window required to implement CRA Demo Farming, and no major external disruptions prevent completion of the demo cycle.
	OC3 – I.2: Number of targeted beneficiaries reporting adaptation benefits in productivity or income generation through application and diffusion of inclusive CRA practices and technologies.	T: 0 F: Y: PWD: IP: 0	660 / 30% F: 198 Y: 132 PWD: 20 IP: 100	1540 / 70% F: 462 Y: 308 PWD: 46 IP: 230		
Output 3.1[LEARN & EXPERIENCE] ADAPT to Farm CRA Programme implemented with selected Small and Micro Cooperatives, combining close support for climate-risk-informed CRA business	OP3.1 - Indicator 1 Number of small and micro cooperatives with climate-risk-informed CRA Business Plans completed, reviewed and screened for CRA Demo Farming readiness.	0	4	4	CRA Business Planning Completion Package; reviewed CRA Business Plans; plan assessment and screening records; mentoring records; cooperative participant registry; project M&E reports..	- Selected cooperatives remain organizationally functional and engaged through the planning cycle. - Cooperative leadership and members are willing to share the business, production and climate-risk information needed to prepare credible CRA Business Plans. - Inputs from Components 1 and 2 are available in time to strengthen the climate-risk and value-chain basis of the plans. - Completed plans remain sufficiently relevant to guide demo-farming preparation despite changes in

planning and demo farming to deliver practical experience, and tangible on-farm adaptation benefits through the application of technically sound CRA solutions under real farming conditions.						climate, production, market or financial conditions.
	OP3.1 - Indicator 2: Number of targeted participants from the selected cooperatives completing the CRA Business Planning Programme.	0 F: 0 IP: 0 PWD: 0 Y: 0	60 F: 18 IP: 9 PWD: 2 Y: 12	80 F: 24 IP: 12 PWD: 3 Y: 16	CRA Business Planning Programme package; training and mentoring reports; attendance and completion records; certification records; disaggregated participant registry; project M&E reports.	- Selected cooperatives nominate participants who are able to complete the training and mentoring cycle. - Training schedules and mentoring arrangements are compatible with cooperative operations and agricultural calendars. - Participants remain connected to their cooperatives long enough to apply the planning tools.
	OP3.1 - Indicator 3 Number of climate-risk-informed CRA Business Plans prepared by selected cooperatives and screened for demo-farming readiness.	0	4	4	CRA Business Planning Completion Package; completed CRA Business Plans; screening criteria and review records; mentoring records; demo-farming readiness records; project M&E reports.	- Pre-selected cooperatives can translate training and mentoring into complete, site-specific CRA Business Plans. - Proposed CRA measures remain technically plausible, financially reasonable and aligned with identified climate risks. - Screening results generate a sufficient pipeline of eligible plans for CRA Demo Farming.
Output 3.2 [SCALE] ADAPT to Invest programme implemented with rural finance actors and existing concessional rural finance programmes, enabling them to screen, assess and align capital to CRA opportunities through CRA screening criteria, climate risk assessment approaches, and adaptation-focused appraisal processes.	OP3.2 - Indicator 1: Number of current or prospective concessional finance streams for small and micro cooperatives for which CRA adaptation investment screening checklists, eligibility criteria and evidence requirements are developed or adapted with participating finance actors.	0	1	2	Adaptation finance stream mapping; CRA adaptation investment screening checklist; eligibility and appraisal criteria notes; finance-actor working session records; participating finance actor feedback; project M&E reports.	- Participating finance actors are willing to engage as strategic partners and institutional beneficiaries in adapting screening criteria for CRA investments. - Relevant concessional finance streams remain open to small and micro cooperatives and to climate-resilient agriculture investment purposes. - Screening criteria can be improved without replacing formal credit approval, risk management or due diligence procedures of participating finance institutions.
	OP3.2 - Indicator 2: Number of CRA technical validation, scale-up and adaptation finance alignment packages completed for CRA Demo Farming models, including replication-readiness classification and finance-stream-specific screening considerations.	0	0	4	CRA Demo Farming Completion and Verification Reports; CRA technical validation, scale-up and adaptation finance alignment packages; financing-screening materials; partner consultation or validation records; project M&E reports.	- CRA Demo Farming activities generate sufficient evidence to assess adaptation relevance, technical feasibility, operational viability, safeguards performance and replication potential. - At least some CRA models demonstrate sufficient performance to justify scale-up guidance and financing-screening considerations. - Finance-actor inputs can be translated into practical, non-binding appraisal considerations for future CRA investment proposals.

Table 9 - Table for reporting Adaptation Fund Core Indicators

Adaptation Fund Core Impact Indicator “Number of Beneficiaries”				
Date of Report				
Project Title	ADAPT Mindanao - Advancing Adaptation for Agro-industry and Post-harvest Transformation in Mindanao's fruits and vegetables value chains			
Country	Philippines			
Implementing Agency	UNIDO			
Project Duration	5 years			
	Baseline (<i>absolute number</i>)	Target at project approval (<i>absolute number</i>)	Adjusted target first year of implementation (<i>absolute number</i>)	Actual at completion ⁷ (<i>absolute number</i>)
Direct beneficiaries supported by the project	0	11,000		
<i>Female direct beneficiaries</i>	0	4,400		
<i>Youth direct beneficiaries</i>	0	2,200		
Indirect beneficiaries supported by the project	0	59,000		
<i>Female indirect beneficiaries</i>	0	23,600		
<i>Youth indirect beneficiaries</i>	0	11,800		
Adaptation Fund Core Impact Indicator “Assets Produced, Developed, Improved, or Strengthened”				
Date of Report				
Project Title	ADAPT Mindanao - Advancing Adaptation for Agro-industry and Post-harvest Transformation in Mindanao's fruits and vegetables value chains			
Country	Philippines			
Implementing Agency	UNIDO			
Project Duration	5 years			
	Baseline	Target at project approval	Adjusted target first year of implementation	Actual at completion
Sector (identify)	Fruits and Vegetables Value Chain	At least 2 crops per project site supported		
Targeted Asset	2) Physical assets	At least 3 ADAPT Centres, being: At least 1 constructed facility At least 2 upgraded facilities		
Changes in Asset (<i>Quantitative or qualitative depending on the asset</i>)	0	8,800 DBs directly accessing and effectively using at least one of the climate-resilient shared service infrastructure and services.		

F. Project alignment with the Results Framework of the Adaptation Fund

Project Objective(s) ¹	Project Objective Indicator(s)	AF Outcome	AF Outcome Indicator	Grant Amount (USD)
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Project Objective 1 – Addressing Vulnerability through Adaptive Capacity (PO1) Enhance the adaptive capacity of communities and their livelihoods by strengthening locally led adaptation action through the institutional capacities of local government units, small and micro cooperatives, farmers associations and smallholder farmers in the fruits and vegetables value chain	O1 – I.2: Percentage and number of targeted FVVC most vulnerable actors reporting awareness and increased meaningful participation in local processes that address key climate impacts, hazards and risks affecting their communities.	AF Outcome 2: Strengthened institutional capacity to reduce risks associated with climate-induced socioeconomic and environmental losses.	AF Outcome Indicator 2.1.: Capacity of staff to respond to, and mitigate impacts of, climate-related events from targeted institutions increased.	625,000
		AF Outcome 1: Reduced exposure to climate-related hazards and threats.	AF Outcome Indicator 1: Relevant threat and hazard information generated and disseminated to stakeholders on a timely basis	500,000 (AF Output Indicator 1.1.1)
		AF Outcome 3: Strengthened awareness and ownership of adaptation and climate risk reduction processes at local level.	AF Outcome Indicator 3.1.: Percentage of targeted population aware of predicted adverse impacts of climate change, and of appropriate responses.	545,000
	O1 – I.3: Number of local, subnational, sectoral, planning, investment, budgeting or decision-making instruments that incorporate project-supported fruits and vegetables value-chain adaptation priorities.	AF Outcome 7 Improved policies and regulations that promote and enforce resilience measures.	AF Outcome Indicator 7 Climate change priorities are integrated into national development strategies.	500,000
Project Objective 2 – Vulnerability through Adaptive Capacity and Sensitivity (PO2) Reduce the vulnerability of small and micro cooperatives in the fruits and vegetables agro-industry to climate variability and change by improving access to their members to finance, climate information services, and adaptation solutions, strengthening climate-risk-informed business planning and investment, and supporting the transition to climate-resilient agricultural systems with lower climate sensitivity.	O2 – I.1: Reduction in the proportion of targeted value-chain actors relying on high-interest, tied, or distress-driven financing and marketing arrangements to cope with climate-related production and post-harvest risks.	AF Outcome 4: Increased adaptive capacity within relevant development sector services and infrastructure assets	AF Outcome Indicator 4.1: Responsiveness of development sector services to evolving needs from changing and variable climate	1,540,000
	O2 – I.2: Percentage increase in crop productivity among targeted smallholder farmers applying inclusive climate-resilient agriculture practices and technologies.	AF Outcome 8: Support the development and diffusion of innovative adaptation practices, tools and technologies	AF Outcome Indicator 8: Innovative adaptation practices are rolled out, scaled up, encouraged and/or accelerated at regional, national and/or subnational level	2,482,245
	O2 – I.3: Percentage of targeted beneficiaries reporting increased income through either gains in farm productivity or agro-industrial value addition (new products/processes or services with BRL/TRL advanced with project support).	AF Outcome 6 Diversified and strengthened livelihoods and sources of income for vulnerable people in targeted areas	AF Outcome Indicator 6.1 Percentage of households and communities having more secure access to livelihood assets.	2,065,755
Project Objective 3 – Addressing Hazards and Exposure (PO3) Reduce the exposure of smallholder farmers' productive assets to climate	O3 – I.1: Number of targeted beneficiaries reporting improved protection of critical livelihood assets through project-supported climate-resilient agriculture infrastructure and climate information services (CIS).	AF Outcome 1 Reduced exposure to climate-related hazards and threats	AF Outcome Indicator 1 Relevant threat and hazard information generated and disseminated to stakeholders on a timely basis	500,000 (AF Output Indicator 1.2.1)

hazards in the fruits and vegetables agro-industry in Mindanao by expanding access to climate-resilient agriculture infrastructure for production, storage, and processing.	O3 – I.2: Additional capacity for climate-resilient production, storage, post-harvest handling, and processing of agricultural produce , measured in tons of output directly supported by improved infrastructure and services.	AF Outcome 4 Increased adaptive capacity within relevant development sector services and infrastructure assets.	AF Outcome Indicator 4.2 Physical infrastructure improved to withstand climate change and variability-induced stress	4,500,000
Total outcome level grant amount				13,258,000
Project Outcome(s)	Project Outcome Indicator(s)	AF Output	AF Output Indicator	(USD)
Outcome 1 [LOCALLY LED ADAPTATION SYSTEM] Strengthened capacity, coordination, and enabling environment for locally led adaptation in Mindanao's fruits and vegetables value chains, enabling nationally identified adaptation priorities to be cascaded into locally implemented action and reflected in longer-term regional planning and investment.	OC1 – I.1⁴²: Percentage and number of targeted representatives of local leadership and FVVC actors demonstrating improved capacity to assess climate risks, identify local adaptation priorities, and engage in project-site adaptation planning and leadership functions.	AF Output 2.1 Strengthened capacity of national and sub-national centres and networks to respond rapidly to extreme weather events	AF Output Indicator 2.1.1. No. of staff trained to respond to, and mitigate impacts of, climate-related events (by gender)	625,000
	OC1 – I.2⁴³: Number of FVVC sectorial planning, investment, or decision-making instruments in targeted Mindanao regions (X, XI, XII) integrating project-supported climate risk and adaptation priorities.	AF Output 1.1: Risk and vulnerability assessments conducted and updated	AF Output Indicator 1.1.1: No. of projects/programmes that conduct and update risk and vulnerability assessments (by sector and scale)	500,000
	OC1 – I.1⁴⁴: Percentage and number of targeted representatives of local leadership and FVVC actors demonstrating improved capacity to assess climate risks, identify local adaptation priorities, and engage in project-site adaptation planning and leadership functions.	AF Output 3.2: Strengthened capacity of national and subnational stakeholders and entities to capture and disseminate knowledge and learning	AF Output Indicator 3.2.2: No. of tools and guidelines developed (thematic, sectoral, institutional) and shared with relevant stakeholders	545,000
	OC1 – I.3⁴⁵ Number of project-site LCCAP-linked FVVC adaptation packages with PPAs under implementation with traceable adaptation benefits.	AF Output 7: Improved integration of climate-resilience strategies into country development plans	Output Indicator 7.1. No. of policies introduced or adjusted to address climate change risks (by sector)	500,000
Outcome 2 [CLIMATE-RESILIENT SHARED SERVICE SYSTEM] Adaptive capacity and livelihood resilience of communities, Small and micro cooperatives, farmers associations and smallholder farmers are strengthened through	OC2 – I.1: Number and percentage of targeted fruits and vegetables value-chain actors directly accessing at least one project-supported ADAPT Centre service.	AF Output 1.2: Targeted population groups covered by adequate risk reduction systems	AF Output Indicator 1.2.1.: Percentage of target population covered by adequate risk-reduction system	500,000
		AF Output 4: Vulnerable development sector services and infrastructure assets strengthened in response to climate change impacts,	AF Output Indicator 4.1.2.: No. of physical assets strengthened or constructed to withstand conditions resulting from climate variability and change (by sector)	4,500,000

⁴² AF Outcome Indicator 2.1, adapted; aligned with GGA 10(a)(g)

⁴³ GGA 10(c)(a), adapted; aligned with AF Output Indicator 2.1.2, adapted:

⁴⁴ AF Outcome Indicator 2.1, adapted; aligned with GGA 10(a)(g)

⁴⁵ GGA 10(c)(a), adapted; aligned with AF Output Indicator 2.1.2, adapted:

access to and use of climate-resilient shared service infrastructure, operational know-how, and value-addition and market-support functions in fruits and vegetables value chains		including variability.	and scale).	
	OC2 – I.2: Percentage and number of targeted ADAPT Centre users and centre-linked actors applying project-supported post-harvest, value-addition, or climate-informed service-use skills in their livelihoods, cooperative operations, or centre-related activities.	AF Output 6: Targeted individual and community livelihood strategies strengthened in relation to climate change impacts, including variability.	AF Output Indicator 6.1.1: No. and type of adaptation assets (tangible and intangible) created or strengthened in support of individual or community livelihood strategies	2,065,755
		AF Output 8: Viable innovations are rolled out, scaled up, encouraged and/or accelerated	AF Output 8.1.: No. of innovative adaptation practices, tools and technologies accelerated, scaled-up and/or replicate	482,245
Outcome 3 [CLIMATE-RESILIENT AGRICULTURE INVESTMENT SYSTEM]: Adaptive capacity and on-farm climate resilience of small and micro cooperatives and their members are strengthened through access to and application of climate-resilient agriculture solutions, climate-risk-informed business planning, and improved alignment of rural finance and concessional capital, reducing dependency on high-interest rates and debt-inducing market conditions.	OC3 – I.1: Number of targeted cooperatives and number/percentage of beneficiaries applying climate risk-informed business planning skills in their farm production or in diversified livelihood decision-making and/or reporting reduced reliance on high-interest or adverse financing and marketing arrangements following project-supported climate risk-informed business planning.	AF Output 4.1.: Responsiveness of development sector services to evolving needs from changing and variable climate	AF Output Indicator 4.1.1. No. and type of development sector services modified to respond to new conditions resulting from climate variability and change (by sector and scale)	1,540,000
	OC3 – I.2: Number of targeted beneficiaries reporting adaptation benefits in productivity or income generation through application and diffusion of inclusive CRA practices and technologies.	AF Output 8: Viable innovations are rolled out, scaled up, encouraged and/or accelerated.	AF Output 8.1.: No. of innovative adaptation practices, tools and technologies accelerated, scaled-up and/or replicated	2,000,000
Total output level grant amount				13,258,000

G. Detailed budget

BL	Description	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Component 1 – LEAD							
Output 1.1							
2600	Implementing partner	450,000	450,000	175,000	50,000		1,125,000
Subtotal Output 1.1		450,000	450,000	175,000	50,000		1,125,000
Output 1.2							
1100	International Consultants	72,000	72,000	72,000	72,000	72,000	360,000
1101	Technical Operational Services	13,574	13,574	13,574	13,574	13,574	67,870
1500	Travel of project experts	10,000	10,000	10,000	10,000	10,000	50,000
1600	Travel of project staff	6,000	6,000	6,000	6,000	6,000	30,000
1700	National consultants	38,000	38,000	38,000	38,000	38,000	190,000
2100	Subcontracts	42,000	100,000	80,000	60,000	40,000	322,000
5100	Other direct costs	5,000	5,000	5,000	5,000	5,130	25,130
Subtotal Output 1.2		186,574	244,574	224,574	204,574	184,704	1,045,000
Subtotal Component 1							2,170,000
Component 2 – PROCESS							
Output 2.1							
1100	International Consultants	144,000	144,000	144,000	144,000	144,000	720,000
1101	Technical Operational Services	14,347	14,347	14,347	14,347	14,347	71,735
1500	Travel of project experts	5,000	5,000	5,000	5,000	5,000	25,000
1700	National Consultants	6,000	6,000	6,000	6,000	6,000	30,000
1701	Administrative and Operational Support	6,802	6,802	6,802	6,802	6,802	34,010
2100	Subcontracts	151,000	231,000	231,000	151,000	160,000	924,000
4500	Equipment for scaling up			200,000			200,000
5100	Other direct costs	5,000	5,000	5,000	5,000	4,986	24,986
Subtotal Output 2.1		332,149	412,149	612,149	332,149	341,135	2,029,731
Output 2.2							
1100	International Consultants	216,000	216,000	216,000	216,000	168,000	1,032,000
1101	Technical Operational Services	50,592	50,592	50,592	50,592	50,592	252,960
1500	Travel of project experts	15,000	15,000	15,000	15,000	10,000	70,000
1600	Travel of project staff	8,000	8,000	8,000	8,000	8,000	40,000
1700	National Consultants	87,000	75,000	75,000	54,000	33,000	324,000

1701	Administrative and Operational Support	21,308	18,284	18,284	18,284	16,976	93,136
2100	Subcontracts	520,000	480,000	120,000			1,120,000
3000	In service training and workshop	200,000	200,000	200,000	80,000	80,000	760,000
4500	Equipment	0	1,200,000	400,000	200,000		1,800,000
5100	Other direct costs	6,000	5,000	5,000	5,000	5,173	26,173
Subtotal Output 2.2		1,123,900	2,267,876	1,107,876	646,876	371,741	5,518,269
Subtotal Component 2							7,548,000
Component 3 – INVEST							
Output 3.1							
2600	Implementing partner	200,000	200,000	200,000	2,000,000	400,000	3,000,000
Subtotal Output 3.1		200,000	200,000	200,000	2,000,000	400,000	3,000,000
Output 3.2							
1100	International Consultants	22,000	33,000	33,000	33,000	22,000	143,000
1101	Technical Operational Services	4,625	4,625	4,625	4,625	4,625	23,125
1500	Travel of project experts	8,000	8,000	8,000	8,000	8,000	40,000
1700	National Consultants	18,000	25,000	25,000	18,000	18,000	104,000
1701	Administrative and Operational Support	2,180	2,180	2,180	2,180	2,180	10,900
2100	Subcontracts		60,000	60,000	50,000	48,975	218,975
Subtotal Output 3.2		54,805	132,805	132,805	115,805	103,780	540,000
Subtotal Component 3							3,540,000
Yearly budgets		2,132,404	3,437,404	4,442,404	2,039,404	1,206,384	13,258,000

Table 10 – Execution costs breakdown by budget lines

PROJECT EXECUTION COSTS by budget lines							
1100	International Consultants	4,000	4,000	4,000	4,000	4,000	40,000
1500	Travel of project experts	2,000	2,000	2,000	2,000	2,000	10,000
1700	National Consultants	22,500	30,000	30,000	30,000	41,250	120,000
3000	Workshops /meetings	22,000	10,000	10,000	10,000	10,000	60,000
2600	Implementing partners	152,609	45,403	45,403	45,403	45,403	334,225
5100	Other direct costs	2,660					2,660
Subtotal Output 4.1		199,561	71,186	106,186	70,186	115,856	566,885

Table 11 – Execution costs breakdown by executing entity and activities

Type of Executing Activity	Responsibility	Timeframe	Budget (USD) UNIDO	Budget (USD) MinDA	Budget (USD) EE (Output 3.1)
1. Meetings and Workshops					
Inception workshop, including M&E Management Plan induction, ESMPs/GAC/GRM set-up	UNIDO	Within six months of the first disbursement	10,000		
Project coordination meetings	MinDA	Quarterly		30,000	20,000
Project Steering Committee (PSC) meetings, including GISAC and TSAC	UNIDO	Semi-annual	50,000		
2. Monitoring & Reporting					
Monitoring expertise with collection and consolidation of project data for the Mid-term Review and Terminal Evaluation	UNIDO	Throughout project duration	70,000		
Baseline Data Report (BDR), including disaggregated baseline for the project SRF indicators used in the Project Results Framework and the GAP.	UNIDO	No later than the 1st PPR	10,000		
Inception Report (IR)	UNIDO	No later than 1 month after inception workshop	2,000		
Project records consolidation, monitoring and coordination, including monitoring of GAP/ESMP implementation for safeguards compliance	UNIDO/MinDA/EE	Quarterly	48,000	5,000	150,000
Annual Project Performance Reports (PPRs), including Project Completion Report (PCR)	UNIDO	Annually	20,000		
Project Completion Summary (PCS), with collection and consolidation of data in line with disaggregated baseline indicators used in the Project Results Framework and the GAP.	UNIDO	Within 6 months after PCR	10,000		
3. Travel and logistics					
Travel related to programme execution	UNIDO/MinDA/EE	Throughout project duration	10,000	17,000	50,000
4. Communications					
Dissemination of project updates, and communication support for reporting, knowledge-sharing and coordination with national, regional and local partners, including translation/interpretation where required.				50,000	
5. Other operating costs					
Office running costs, IT, printing and document support	UNIDO/MinDA/EE	Throughout project duration	2,660	5,206	7,019
Total			(a) 232,660 (2.5% of the	(b) 107,206 (9.5% of the	(c) 227,019 (7.5% of the

	share of the UNIDO executed activities budget)*	share of the MinDA executed activities budget)	share of the EE executed activities budget)
Total project execution costs (B = a + b + c)	566,885 (4.2% of the total project activities budget)		

* Under the provisions of decisions B.38/42 and B.41/20, UNIDO requests an exceptional allocation of 2.5 per cent of execution costs of the part part it executes, justified by the project's deliberate execution model. Under this model, which responds to the request of the Philippine Designated Authority for UNIDO to partially execute the project, UNIDO will accompany and strengthen MinDA's execution leadership throughout implementation. As the national executing partner, MinDA will provide the institutional anchoring, coordination and leadership required to carry the project forward within Mindanao's regional development architecture. UNIDO's execution-cost allocation will support a targeted technical execution stewardship function to ensure that this leadership is operationalized, documented and progressively internalized by MinDA. This will include structured technical backstopping, joint preparation and review of delivery tools, support to execution planning, quality assurance of technical outputs, documentation of implementation experience, and transfer of execution know-how related to adaptation programming, safeguards, grant and procurement interfaces, monitoring, reporting and results traceability. This joint technical stewardship by UNIDO and MinDA is embedded in the design of Component 1 – LEAD, and is also reflected in the description of the Project Management Unit. Furthermore, the proposed distribution of execution costs more accurately reflects the nature and operational requirements of each entity's monitoring and safeguards compliance responsibilities, as well as the proportional relationship between each entity's share of overall project execution and its share of the total execution-cost budget.

Table 12 – Share of execution compared to the share of execution costs budgeted

<i>Executing Entity</i>	<i>Share of execution in relation to the project activities budget</i>	<i>Share of EE budget in relation to the project overall execution costs budget</i>
<i>UNIDO</i>	68,9%	41%
<i>MinDA</i>	8,4%	18,9%
<i>Specialized Executing Entity to be selected</i>	22,6%	40%

Table 13 – Implementing Entity Fee Breakdown – IE Fee UNIDO*

Implementing Entity Fee (IE) cost item	Indicative Cost (USD)
Staff (IE staff salary associated with project oversight, including but not limited to):	1,100,000
- Supervision of baseline data - Annual Project Performance Report generation - ESMP monitoring - Gender monitoring - Supervision of the Mid-term Evaluation (MTE) and Final Evaluation (FE)	
Travel	75,115
- Supervision missions associated with project oversight	
Sum of IE costs according to specific items above	1,175,115
*The amounts are indicative and, in line with UNIDO's full cost recovery principles, sum up to an indirect support cost rate. The amounts contribute to the operationalization of corporate support functions for oversight, financial management, reporting and other project-cycles services. As an indirect support cost rate, it is not subject to itemized project-level reporting.	

H. Disbursement schedule

	1 st disbursement	One year after the project start	Year 2	Year 3	Year 4	Total
Milestone	Upon SLA signature	Approval of PPR1 by AF	Approval of PPR2 by AF	Approval of PPR3 by AF	Approval of PPR4 by AF	
Project Activity Costs	2,132,404	3,437,404	4,442,404	2,039,404	1,206,384	13,258,000
Execution Costs	209,269	89,403	89,403	89,403	89,407	566,885
IE Fee	235,023	235,023	235,023	235,023	235,023	1,175,115
Total	2,576,696	3,761,830	4,766,830	2,363,830	1,530,814	15,000,000

PART IV: ENDORSEMENT BY GOVERNMENT AND CERTIFICATION BY THE IMPLEMENTING ENTITY

A. Record of endorsement on behalf of the government

Provide the name and position of the government official and indicate date of endorsement. If this is a regional project/programme, list the endorsing officials all the participating countries. The endorsement letter(s) should be attached as an annex to the project/programme proposal. Please attach the endorsement letter(s) with this template; add as many participating governments if a regional project/programme:

Atty. Juan Miguel T. Cuna Secretary Department of Environment and Natural Resources (DENR)	Date: 28 July 2026
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B. Implementing Entity certification

Ms. Ganna Onysko Senior GEF, GCF, AF Coordinator Division of Funding Partner Relations Directorate of Global Partnerships and External Relations United Nations Industrial Development Organization UNIDO Implementing Entity Coordinator	
I certify that this proposal has been prepared in accordance with guidelines provided by the Adaptation Fund Board, and prevailing National Development and Adaptation Plans (National Adaptation Plan 2023-2050, The Philippine Development Plan 2023-2028, AmBisyon Natin 2040, Mindanao Agenda 2023-2028) and subject to the approval by the Adaptation Fund Board, <u>commit to implementing the project/programme in compliance with the Environmental and Social Policy and the Gender Policy of the Adaptation Fund</u> and on the understanding that the implementing Entity will be fully (legally and financially) responsible for the implementation of this project/programme.	
Date: 14 August 2026	Tel. and email: g.onysko@unido.org CC: gef@unido.org / glo@unido.org / f.haidara@unido.org
Project Contact Person: Meryem Sghir	
Tel. And Email: +43 1 26026 3743 / m.sghir@unido.org	

Annex A – ADAPT Centres implementation and operating Framework

1. Adaptation objective

The ADAPT Centres will function as local agro-industrial resilience platforms that strengthen the capacity of smallholder farmers, farmers' associations, small and micro cooperatives, women and youth agripreneurs, and other fruits and vegetables value-chain actors to retain value, reduce climate-related losses, diversify livelihoods, and engage markets from a stronger position. The Centres respond to the project's core adaptation rationale: climate hazards are already affecting not only production, but also the ability of vulnerable producers to aggregate, store, cool, process, protect, transport, and sell produce under viable conditions. The adaptation objective of the ADAPT Centres is to reduce the exposure of harvested produce and farmer incomes to climate variability by creating shared access to climate-resilient aggregation, cooling, storage, processing, value addition, product protection, and market-interface services. In the absence of such services, farmers are often forced into same-day or distress sales, particularly during peak harvest periods, after climate shocks, or when transport and market access are disrupted. By enabling produce to be aggregated, temporarily stored, cooled, processed or transformed into more stable products, the Centres will help farmers and cooperatives reduce dependence on short shelf life, avoid avoidable spoilage, wait for more favourable market conditions where feasible, meet buyer requirements more consistently, and capture a larger share of value within the local production system.

2. Scope and core functions of the ADAPT Centres

Each ADAPT Centre will combine physical infrastructure, modular service spaces, shared equipment, cooling and storage services, value-addition functions, user training, and structured market engagement. The final configuration of each Centre will be defined during implementation, based on local climate-risk evidence, crop profile, cooperative readiness, market assessment, safeguards screening, infrastructure feasibility, and O&M sustainability.

Ten core functions and respective adaptation benefits

Climate-resilient aggregation: enables farmers and cooperatives to consolidate produce, reduce fragmented same-day selling, organize volumes, and protect harvested crops from immediate exposure to rainfall, heat, wind, flooding or transport delays.

Cooling as a service: provides shared access to cooling without requiring individual farmers or small cooperatives to purchase and maintain costly cold-chain assets. Cooling may be offered by crate, rack, pallet, room, time slot, or modular storage unit, depending on the Centre design. Temperature management is widely recognized as critical for maintaining quality and extending shelf life of horticultural produce.

Modular ambient and cooled storage: allows cooperatives and farmer groups to rent different sizes and types of storage modules, including ambient, ventilated, shaded, insulated or cooled units. These can be used during harvest peaks, temporary market gluts, expected heavy rainfall, transport disruption, or anticipated climate extreme events

Sorting, grading and quality classification: enables producers to separate products by quality and market use, reducing the loss of produce that does not meet fresh-market standards but can still be processed or transformed.

Product protection and packaging: supports the use of crates, protective packaging, labelling, and handling practices that reduce mechanical damage, contamination, moisture damage, heat exposure and quality deterioration during transport and sale.

Processing and value addition: converts perishable harvests into products with longer shelf life, higher market differentiation, or lower dependence on immediate fresh-market sale. This is central to livelihood diversification and value retention.

Residue and by-product utilization: supports circular and nature-sensitive uses of peels, trimmings, rejected produce and crop residues, including composting, biofertiliser, animal feed ingredients where safe, fibre extraction where feasible, and other waste-reduction.

Climate information for operational decisions: helps users link climate advisories to harvesting, storage, cooling, drying, transport, and market timing decisions.

ADAPT to Market interface: provides the operational platform through which crop-specific demonstrations, buyer

feedback, product trials, packaging improvements, quality discussions, volume planning and cooperative market-readiness activities can take place.

Hands-on training and demonstration: builds user capacity to operate shared services, manage quality, use equipment safely, maintain records, apply food safety protocols, and assess which value-added products are technically and commercially viable.

3. Eligible investments, equipment and technical support

Eligible support will be limited to investments that strengthen the Centres' adaptation function, operational sustainability, and public-interest shared-service role. The package for each Centre will be defined through the Centre Business Plan and technical design, and may include the following indicative, non-exhaustive categories.

Climate-resilient infrastructure work: rehabilitation, construction or upgrading of covered aggregation areas, loading and unloading zones, raised storage areas, drainage systems, roofing, ventilation, climate-proofed flooring, water points, sanitation facilities, safe access routes, electrical upgrading, and protected service areas.

Cooling-as-a-service infrastructure

Modular cool rooms, walk-in cold storage, cold cabinets, insulated storage, evaporative or passive cooling systems, temperature and humidity monitoring, pre-cooling equipment where justified, solar or hybrid energy support, backup power, and rentable crate/rack/pallet systems.

Modular storage systems

Ambient storage bays, ventilated storage, shaded storage, insulated rooms, dry storage, cooled storage modules, stackable crate systems, lockable cooperative storage units, temporary emergency storage space, and harvest-season rental modules.

Aggregation and handling equipment

Receiving tables, sorting and grading tables, weighing scales, crates, pallets, trolleys, racks, protective covers, washable work surfaces, handling tools, and simple logistics equipment.

Processing and value-addition equipment

Fit-for-purpose equipment for drying, slicing, pulping, juicing, jam-making, pickling, fermenting, dehydration, powdering, chips production, flour production, sealing, labelling, basic bottling, packaging, and other small-scale product transformation appropriate to the crop and operator capacity.

Commodity-responsive value-addition options

Depending on local crop profile and feasibility, Centres may support products such as dried mango, mango jam, mango puree, mango nectar, mango leather, banana chips, banana flour, banana in syrup, dried banana, vegetable chips, dried vegetables, vegetable powders, pickled vegetables, sauces, fermented products, fresh-cut or ready-to-cook vegetable packs where cold-chain and food safety conditions are adequate, biofertiliser or compost from residues, and banana *pseudostem* fibre or other residue-based products where technically and environmentally viable.

Quality, safety and market-readiness tools

Moisture meters, thermometers, weighing and grading tools, hygiene equipment, food-safe surfaces, protective equipment, traceability records, batch records, basic product testing, packaging and labelling tools, and equipment needed to meet buyer or regulatory requirements.

Water, energy and resource-efficiency systems

Water-saving washing systems, water storage, drainage and wastewater management, renewable or backup energy, energy-efficient dryers and cooling systems, residue recovery systems, composting equipment, and measures that reduce operating costs and climate sensitivity.

Technical assistance and capacity-building

Operator training, O&M training, cooperative service management, cooling-service management, food safety, quality control, product development, market testing, tariff design, financial record keeping, buyer engagement, climate-informed scheduling, and inclusive access management.

4. Technology selection and climate-resilient design principles

Technology selection will apply a fit-for-purpose adaptation test. Priority will be given to technologies and equipment that provide clear climate-resilience benefits, can be operated locally, are affordable to maintain, have manageable energy and water requirements, and can be used safely by MAO-linked operators, cooperatives and trained users. The Centres will prioritize robust, low-maintenance and modular solutions over high-technology equipment that could create permanent maintenance burdens. Cooling technologies will be selected carefully. Cooling is central to the Centres' adaptation function, but it must be designed as a sustainable service, not as an isolated equipment purchase. Centre Business Plans will therefore assess the commodity profile, storage duration, energy supply, refrigerant implications, backup power, user demand, fee structure, operator capacity, maintenance arrangements, and safeguards requirements before selecting a cooling solution. Where full cold storage is not technically or financially justified, the Centre may prioritize improved shaded storage, ventilated storage, evaporative cooling, insulated rooms, pre-cooling, passive cooling, or hybrid systems. The modular service model should be treated as a design principle. Centres may include storage spaces of different sizes and service levels, such as crate-based cooling, pallet bays, cooperative storage rooms, short-term harvest holding areas, emergency storage during climate advisories, and fee-based ambient or cooled modules. This allows services to match different user capacities and seasonal needs, while avoiding a single fixed model that may be underused outside peak periods. Physical infrastructure will be designed so that the Centres themselves remain reliable under expected climate extreme events. Designs will consider drainage, safe siting, flood and runoff risk, roof and wind resilience, ventilation and heat management, protected drying and processing areas, reliable water, sanitation, power continuity, backup energy, safe access during heavy rainfall, and measures to avoid damage to stored produce and equipment. Where appropriate, designs may incorporate nature-sensitive and resource-efficient measures such as shade trees, vegetative buffers, rainwater harvesting, runoff management, composting, residue valorisation, passive cooling and solar energy.

5. ADAPT Centre Business Plan (ACBP) and technical approval process

Before construction, upgrading, major equipment procurement or operational launch, each ADAPT Centre will be supported by an ADAPT Centre Business Plan and technical package. The ACBP will define the adaptation rationale, service model, institutional responsibilities, infrastructure and equipment package, access arrangements, tariff approach, O&M requirements, safeguards measures, and sustainability provisions. Each ADBP will be assessed and must demonstrate alignment with the following criteria:

Criteria	Required demonstration
National Adaptation Plan	The Centre contributes to agricultural adaptation, livelihood resilience, value-chain continuity, and climate-resilient local development.
LCCAP and local adaptation priorities (DA-CRVA)	The Centre responds to locally identified climate risks, post-harvest constraints, and adaptation priorities.
Project CRVA	The Centre addresses climate-risk and adaptive-capacity constraints identified through the project evidence base.
Component 1 assessments	The Centre configuration reflects local diagnostics, value-chain assessments, feasibility analysis, technology needs, and institutional readiness.
ESMP requirements	The Centre design integrates all applicable environmental, social, gender, inclusion, safety and maladaptation-risk requirements.
Operational sustainability	The Centre can be managed, maintained, accessed and used under realistic local capacity, utility and financial conditions.

The approval process will be as follows:

Steps	Responsibility	Purpose
Preparation of the ADBP and technical package	Coordinate by PMU with MAO and Business Planning Group	Defines the site-specific service model, technical design, equipment package, safeguards requirements and O&M approach.
Technical quality review	Technical and Scientific Advisory Committee (TSAC)	Confirms technical suitability, climate-resilience logic, technology appropriateness, feasibility and consistency with project adaptation objectives.
Inclusion and safeguards review	Gender, Inclusion and Social Safeguards Advisory Committee (GISAC)	Reviews equitable access, benefit-sharing, social safeguards, gender and inclusion considerations, and safeguards-sensitive operating arrangements.
Final endorsement/approval	Project Steering Committee (PSC)	Endorse the Centre package to proceed with procurement, construction, upgrading, equipping, and operationalization.

6. Operations and Management

The ADAPT Centres will be institutionally anchored under the Municipal Agriculture Office (MAO). This anchoring is necessary to safeguard the public-interest adaptation function of the Centres, maintain alignment with local agricultural adaptation priorities, and avoid the risk that shared assets become captured by narrow private interests. Operational arrangements will be further detailed during implementation, but all arrangements will be based on shared but differentiated responsibilities. Under this model, the MAO will retain public oversight and institutional stewardship, while at least one cooperative or organized producer structure may hold defined managerial or operational responsibilities. These responsibilities may include user coordination, service scheduling, equipment-use supervision, basic record keeping, collection of approved service fees, support to maintenance, and organization of product throughput. The cooperative role will not replace MAO oversight; it will enable the Centre to remain connected to actual users, production cycles and value-chain demand. Scientific and technical partners, including local universities, academic institutions, technical agencies or applied research partners, may be engaged through stewardship-type arrangements. Their role will be to strengthen local capacity, provide technical backstopping, support operator training, assist with technology suitability assessments, contribute to quality assurance, and help document applied learning from Centre use. During project implementation, the Centres will operate under close technical and operational stewardship involving the Municipal Agriculturist, the Project Chief Technical Advisor, TSAC and GISAC. Annual workplans and budgets will be submitted for PSC approval. These workplans will define the Centre's service priorities, training activities, user-access measures, O&M actions, equipment-use planning, safeguards follow-up and budgetary requirements for the relevant period. The Centres will also be operated in a manner that avoids crowding out viable private fruits and vegetables value-chain investment, focusing instead on adaptation-enabling shared services where smallholders and cooperatives face clear access barriers, climate-related risks or market failures.

7. Access, inclusion and adaptation benefit-sharing

The ADAPT Centres will operate as shared-use platforms. Access rules will be transparent, documented and communicated to intended users. These rules will cover service eligibility, scheduling, user responsibilities, equipment-use procedures, safety requirements, fee arrangements, complaint and feedback channels, and priority provisions for vulnerable users where needed. The primary users will include smallholder farmers, small and micro cooperatives, farmers' associations, women and youth agripreneurs, Indigenous Peoples where relevant, agrarian reform beneficiaries, and other vulnerable or climate-exposed fruits and vegetables value-chain actors. The Centres may also engage buyers, processors, traders, packers, transporters and service providers where such engagement strengthens the Centres' adaptation, value-addition and market-interface functions. The access model explicitly recognizes the role of the Centres in improving the market position of farmers and cooperatives within climate-sensitive fruits and vegetables value chains. By providing aggregation, modular storage, cooling-as-a-service, product sorting, processing, value addition and market-readiness support, the Centres will reduce the pressure on farmers to sell immediately after harvest under unfavourable price conditions. Where feasible, users will be able to hold produce for short periods, consolidate volumes, separate produce by quality, transform lower-grade or surplus

produce into marketable products, and engage buyers with more consistent product preparation, volume and quality conditions. This function is especially important where shelf-life constraints, weather disruption, weak storage and limited post-harvest options convert climate shocks into income losses. Service fees, where applied, will be designed on a concessional basis. Their purpose will be to support responsible use, basic operations and maintenance, and continuity of services, without creating affordability barriers for vulnerable users. Fee structures may be differentiated by user type, service type, storage duration, cooling requirements, seasonality or vulnerability status, subject to transparent rules and MAO oversight.

8. Environmental and social risk screening

All ADAPT Centre packages will be screened through the project's environmental and social risk management system, including the ESMF/ESMP and, where required, ESIA-informed measures. Screening will cover risks linked to water use, energy demand, waste, food safety, occupational health and safety, land or access issues, exclusion of vulnerable users, affordability, unsafe siting, climate exposure of assets, and maladaptation. Required mitigation measures will be integrated into Centre design, procurement, construction or upgrading, operating rules, workplans and monitoring arrangements before the relevant investment proceeds.

Annex B – ADAPT to Farm (Adaptation Benefits Grant Mechanism)

1. Rationale and objective

The ADAPT to Farm CRA Grant Mechanism is established under Output 3.1 to support selected small and micro cooperatives and their registered members in moving from climate-risk-informed planning to verified, field-based application of CRA solutions. Output 3.1 is designed to combine CRA Business Planning, technical review and endorsement, and demo-farming under real farming conditions, so that cooperatives can generate practical on-farm adaptation benefits and evidence for internal replication. The mechanism responds to a specific adaptation finance barrier in Mindanao's fruits and vegetables value chains. Cooperatives and smallholder farmers face climate-sensitive production losses, weak post-harvest resilience, limited access to affordable finance, and low capacity to prepare technically credible adaptation investment proposals. The grant mechanism will therefore finance only those CRA demo-farming packages that are derived from technically validated CRA Business Plans and that demonstrate a clear response to observed climate impacts and identified projected climate risks. It will not finance general productivity improvements, routine input support, or business-as-usual cooperative development. Each grant-supported package must demonstrate how the proposed CRA intervention reduces exposure, lowers sensitivity, or strengthens adaptive capacity in relation to the specific climate-risk profile of the site. The mechanism is also designed as an Adaptation Benefits Mechanism-informed instrument. It will generate verified evidence of adaptation benefits from demo-farming, including technical performance, risk-reduction logic, implementation feasibility, safeguards compliance, and finance-readiness. This evidence can then support future engagement with concessional finance institutions by helping cooperatives demonstrate that their CRA investment proposals are technically validated, adaptation-relevant, and less risky for follow-on lending. It supports the shift from adaptation perceived merely as a risk to adaptation understood as an economic opportunity, a central argument in the project ToC.

2. Grant mechanism structure

The CRA Business Plan will serve as the principal application instrument for the ADAPT to Farm CRA Grant Mechanism. The project will first support participating cooperatives to prepare these plans through structured training, mentoring, and technical assistance. Once completed, the plans will be submitted for clustered eligibility and exclusion screening, weighted technical and financial scoring, and technical validation. Endorsed CRA Business Plans will then be converted into Demo-Farming Grant Implementation Packages, which will form the basis for grant agreements and milestone-based disbursement. The mechanism will provide two grant windows:

Window 1: Micro Cooperative CRA Demo-Farming Grants: USD 100,000–200,000 per grant

This window will support CDA-registered micro cooperatives, defined in the Philippines as cooperatives with assets of PHP 3 million or below. The normal range should be USD 100,000 – 150,000. Grants above USD 150,000 should

be approved only where the cooperative demonstrates adequate fiduciary controls, a strong technical package, and a larger number of participating members or plots.

Window 2: Small Cooperative CRA Demo-Farming Grants: USD 200,000–300,000 per grant

This window will support CDA-registered small cooperatives, defined as cooperatives with assets above PHP 3 million but below PHP 15 million. The normal range should be USD 200,000 – 250,000. Grants up to USD 300,000 should be reserved for technically complex packages involving multiple production clusters, climate-resilient shared assets, strong monitoring arrangements, and clear potential for replication among cooperative members.

2.2 Target beneficiaries

Direct grant beneficiaries will be selected CDA-registered SMCs operating in the four project sites. Final beneficiaries will be the registered cooperative members and smallholder farmers participating in the CRA Business Planning and demo-farming process. The mechanism will prioritize cooperatives and members that meet at least one of the following vulnerability criteria: high dependence on climate-sensitive fruits and vegetables; exposure to recurrent drought, flooding, extreme heat, extreme rainfall, landslides, soil erosion, strong winds, or weather reversals; limited access to climate-resilient infrastructure or services; dependence on high-interest input credit; weak access to affordable finance or climate insurance; and participation of women, youth, Indigenous Peoples, or other vulnerable members in production, post-harvest, processing, or cooperative decision-making.

2.3 Eligible sectors

Eligible sectors must be consistent with four reference points: the Philippine NAP priorities, DA-CIAT/DA-AMIA CRVA evidence, LCCAP-linked priorities, and the project-level CRVA and baseline findings. The mechanism will focus on fruits and vegetables value chains in the four project sites. Indicative CRA strategies may include:

Project Site	Preliminary climate-risk rationale	Indicative CRA practices
PS1: Midsayap	Mango systems may have reached hard adaptation limits as DA suitability assessments have indicated, with severe impacts by extreme heat, drought-rain reversals, flooding, pest outbreaks, low adaptive capacity, and weak post-harvest resilience. Crop diversification toward fruits and vegetables with higher suitability under projected local conditions will be necessary to reduce livelihood dependence on a climate-constrained perennial crop	Climate-informed pruning and flowering management, IPM, soil nutrition, dwarf/high-density mango transition pilots where technically justified, water management, solar-backed cold storage linkages, and processing-readiness improvements.
PS2: Talakag	Highland vegetables exposed to soil erosion, steep slopes, extreme rainfall, drought, and rapid hot-cold temperature shifts. Site presents severe to very severe soil-loss risk and crop sensitivity.	SALT, contour farming, vegetative strips, soil-health restoration, organic mulching, rainwater harvesting, erosion-control planting, protected nursery systems, climate-informed planting calendars, and low-cost cold/temporary storage pilots.
PS3: Compostela	Lowland vegetables affected by flooding, heavy rainfall, landslide-prone terrain, and disruptions to production, transport, and storage.	Flood-resilient production calendars, drainage and raised-bed systems, water-management measures, seedling protection, climate-resilient aggregation, and crop-specific handling to reduce weather-induced spoilage.
PS4: Sto Tomas	Banana systems exposed to drought, flooding, extreme heat, tropical cyclones, and Fusarium wilt. Sigatoka impact on yields, producing underweight banana bunches, and causing fruits to ripen prematurely and unevenly during shipping, and maladaptive chemical-use.	IPM, disease-management protocols, climate-informed irrigation, soil and drainage improvement, diversified banana/cardava or alternative crop packages, residue-risk reduction, and safer input-use protocols.

3. Eligibility and exclusion screening

The ADAPT to Farm CRA Grant Mechanism will apply a clustered eligibility and exclusion framework. Applications will not be assessed only on administrative compliance, but on whether the proposed CRA package demonstrates a technically credible adaptation strategy. Each application must pass all eligibility clusters and must not trigger any

exclusionary condition. The screening will be applied before full technical scoring.

Each cluster will be assessed as:

Pass: minimum requirements are met;

Pass with conditions: minor weaknesses can be corrected before grant agreement;

Revise and resubmit: the concept is potentially eligible but requires substantive correction;

Reject: the proposal fails a minimum requirement or triggers an exclusionary condition.

3.1 Institutional eligibility and cooperative readiness

Eligible applicants must be CDA-registered micro or small cooperatives operating in one of the ADAPT Mindanao project sites and serving registered members directly engaged in fruits and vegetables production, aggregation, post-harvest handling, processing, or related cooperative services. The cooperative must demonstrate minimum organizational readiness to manage a grant-funded CRA package, including functioning governance bodies, identifiable member-beneficiaries, basic financial records, and willingness to enter into a milestone-based grant agreement. This criterion is not intended to favour the most advanced cooperatives only. Rather, it ensures that the grant is channeled through a legally recognized collective structure capable of reaching vulnerable producers while maintaining minimum fiduciary accountability.

Exclusionary conditions under this cluster: applications will be excluded where the applicant is not legally registered, does not fall within the micro or small cooperative category, cannot identify the registered members expected to benefit, lacks minimum financial records, is unable to comply with grant reporting and verification requirements, or presents a high risk of elite capture by cooperative officers, traders, landowners, contractors, or non-member private interests.

3.2 Climate-risk and adaptation additionality

Eligible proposals must demonstrate a clear climate-risk rationale. The CRA Business Plan must identify the specific climate hazard or climatic impact-driver being addressed, the exposed production or value-chain function, the sensitivity of the crop or system, and the adaptive-capacity constraint that the grant will help overcome. This should be grounded in the project CRVA, DA-CIAT/DA-AMIA vulnerability dimensions, the relevant LCCAP or local adaptation priority, and the Philippine NAP. The CRA Business Plan must show that the intervention is not simply improving productivity or profitability under normal conditions, but reducing climate vulnerability under current or expected climate stress. In practical terms, the application must answer: what climate risk is being reduced, for whom, through what technical option, and how this will be observed or verified?

Exclusionary conditions under this cluster: applications will be excluded where the proposed package is a generic input subsidy, routine farm expansion, conventional productivity investment, marketing support, or business-as-usual cooperative activity without a demonstrated adaptation increment. Proposals will also be excluded where the climate-risk statement is vague, where the CRA measures are not linked to the identified hazard, or where the benefits would occur in the same way without the climate-adaptation intervention.

3.3 Technical soundness of the CRA strategy/interventions to be implemented

Eligible proposals must present a technically coherent CRA strategy with a clear set of interventions. The proposed measures must be suitable for the site, crop, slope, water condition, pest and disease context, post-harvest risk, and cooperative capacity. The application must explain how the selected CRA package will reduce exposure, lower sensitivity, or strengthen adaptive capacity. Examples include soil and water conservation in erosion-prone highlands; IPM and residue-risk reduction in climate-stressed banana systems; water-efficient irrigation or rainwater harvesting where drought and water stress are limiting factors; drainage, raised beds, or flood-adjusted production calendars in flood-prone lowlands; and post-harvest or cold-chain measures where climate shocks are converted into quality deterioration, spoilage, and income loss. The proposal must also show that the selected measures are

technically feasible within the demonstration period and are not beyond the cooperative's management capacity. This includes plot selection, production calendar, technical support needs, procurement requirements, operation and maintenance responsibilities, and the conditions for replication among members.

Exclusionary conditions under this cluster: applications will be excluded where the proposed CRA strategy is technically weak, agronomically unsuitable, not feasible in the project site, not matched to the crop and hazard profile, or likely to fail because of unresolved water, soil, pest, land, infrastructure, or operational constraints. Proposals should also be excluded where they attempt to scale a measure before it has been locally validated, or where the intervention depends on technical inputs, services, or maintenance arrangements that are unavailable to the cooperative after the grant.

3.4 Maladaptation, adaptation limits, and safeguards

Eligible proposals must pass a maladaptation and safeguards screen. The CRA package must demonstrate that it does not increase future vulnerability, transfer risk to other groups or ecosystems, deepen dependence on high-cost coping strategies, or create environmental and social harm. The proposal must identify relevant soft limits and hard limits to adaptation, and explain whether the proposed package is realistically overcoming a barrier or merely delaying an unavoidable loss. This cluster should be treated as a core technical screen, not only as an environmental and social safeguard which will also be screened under the project ESMP/ESMF.

Applications will be excluded where they are likely to:

- increase pesticide, fertilizer, or chemical dependency without a credible IPM, residue-management, or soil-health rationale;
- intensify cultivation on erosion-prone slopes without soil-conservation measures;
- expand production in flood-, landslide-, or environmentally unsuitable areas without risk controls;
- increase water extraction without water-availability, efficiency, or recharge considerations;
- reinforce monocropping or production models already shown to be climate-sensitive without diversification or risk-reduction measures;
- create land-tenure, Indigenous Peoples, access, or benefit-sharing conflicts;
- shift risk from one group, site, water source, or ecosystem to another;
- duplicate support already provided by another programme;
- lock farmers further into high-interest trader credit, high-input dependency, or market conditions that expose them to losses associated with hard adaptation limits.

Where risks can be corrected through redesign, the proposal may be returned for revision. Where the maladaptation risk is intrinsic to the proposed activity, it should be rejected.

3.5 Inclusion, benefit-sharing, and adaptation-benefit verification

Eligible proposals must show how grant benefits will reach registered cooperative members, especially vulnerable producers and groups facing differentiated adaptation barriers. The proposal must identify the participating members, expected users of any grant-supported assets or services, women and youth participation, Indigenous Peoples considerations where relevant, and rules for access, use, and benefit-sharing. The application must also define how adaptation benefits will be monitored and documented. At minimum, each proposal should include baseline conditions, expected adaptation benefits, indicators, verification method, responsible persons, and evidence to be produced during and after implementation. This evidence will support the Adaptation Benefits Mechanism-informed logic of the grant facility by converting demo-farming results into a finance-readiness package.

Applications will be excluded where benefits are not clearly linked to registered cooperative members, where access rules are unclear, where women, youth, Indigenous Peoples, tenants, labourers, or resource-poor farmers are likely to be excluded from benefits, or where the proposal cannot define a credible adaptation-benefit monitoring logic. Proposals should also be excluded where grant-supported assets are likely to become private assets of a few individuals rather than cooperative-managed adaptation assets.

4. Technical scoring, validation and endorsement of CRA Business Plans

Once a CRA Business Plan has passed the clustered eligibility and exclusion screening, it will proceed to technical scoring, validation and endorsement. At this stage, the CRA Business Plan will be treated as the cooperative's core grant application and adaptation investment case. No parallel technical proposal will be required, although the project may request short annexes or clarification notes where specific information is missing. This stage has two linked functions. First, it assesses the technical quality, adaptation additionality, implementation readiness and financial reasonableness of the CRA Business Plan through a weighted scoring matrix. Second, it provides the formal technical validation and endorsement decision required before the plan can be converted into a Demo-Farming grant implementation package.

The technical scoring will not repeat the eligibility and exclusion screening. The eligibility screen determines whether a plan is admissible and does not trigger exclusionary risks. The technical scoring determines how strong the plan is as an adaptation investment case and whether it is sufficiently robust to receive grant support. Because the ADAPT to Farm Programme will work with selected cooperatives, at least one per project site, the scoring should not be understood only as a competitive ranking exercise. It should function primarily as a quality-assurance and approval tool. A CRA Business Plan may be endorsed, conditionally endorsed, returned for revision, or rejected, depending on whether it meets the required technical threshold.

4.1 Technical Scoring Matrix

Technical scoring area / Assessment focus	Maximum Score
1. Climate-risk rationale and adaptation additionality: The plan clearly identifies the climate hazard or climatic impact-driver, exposed farming system or value-chain function, crop or system sensitivity, and adaptive-capacity constraint. It demonstrates why the proposed package is an adaptation response rather than business-as-usual production support.	20
2. Technical soundness of the CRA strategy The proposed CRA package is technically suitable for the site, crop, slope, soil, water, pest and disease, post-harvest and cooperative context. It shows how the proposed measures reduce exposure, lower sensitivity or strengthen adaptive capacity.	20
3. Maladaptation avoidance and safeguards robustness The plan identifies and manages risks related to chemical dependency, water stress, soil erosion, land conflict, ecosystem degradation, exclusion, elite capture, occupational safety, and other environmental and social risks.	15
4. Implementation readiness and cooperative capacity The plan includes a realistic implementation calendar, confirmed plots or production clusters, participating farmers, technical support needs, procurement requirements, cooperative responsibilities, operation and maintenance arrangements, and field supervision model.	15
5. Financial soundness and value for money The budget is proportionate to the proposed adaptation benefits, number of members served, implementation costs, cooperative capacity and replication potential. Costs are eligible, reasonable, milestone-based and technically justified.	10
6. Inclusion and benefit-sharing The plan identifies member-level beneficiaries, women and youth participation, Indigenous Peoples considerations where relevant, access rules for grant-supported assets or services, and measures to prevent elite capture.	10
7. Adaptation-benefit verification and finance readiness The plan defines baseline conditions, expected adaptation benefits, indicators, monitoring methods, evidence to be generated, and how the demo results can support future concessional finance or replication.	10

4.2 Technical validation and endorsement

Following technical scoring, each CRA Business Plan will undergo a formal validation and endorsement process before it can be converted into a Demo-Farming Grant Implementation Package. This step will ensure that the plan is not only technically sound as a CRA investment case, but also inclusive, safeguards-compliant, and capable of generating equitable adaptation benefits for registered cooperative members and vulnerable groups. The validation and endorsement process will be structured around two complementary institutional reviews. First, the Technical and Scientific Advisory Committee (TSAC) will validate the technical and scientific quality of the CRA Business

Plan. The TSAC will assess whether the plan is grounded in the project CRVA, the DA-CIAT/DA-AMIA vulnerability logic, the relevant LCCAP priorities, and NAP-aligned adaptation priorities. It will review whether the proposed CRA strategy is technically suitable for the selected crop, production system, site conditions, climate hazard profile, and cooperative capacity. This includes reviewing the plan's hazard–exposure–sensitivity–adaptive capacity logic, agronomic feasibility, water and soil management implications, pest and disease management approach, post-harvest relevance where applicable, implementation calendar, monitoring framework, and adaptation-benefit evidence logic. Second, the Gender, Inclusion and Social Safeguards Committee (GISC) will review and endorse the CRA Business Plan from the perspective of gender responsiveness, social inclusion, safeguards, and equitable adaptation benefit-sharing. The GISC will assess whether the technically validated plan identifies the registered member-beneficiaries, includes women, youth, Indigenous Peoples, persons with disabilities, and other vulnerable groups where relevant, and contains clear access rules for grant-supported assets, services, training, and demo-farming benefits. It will also review whether the plan includes measures to prevent elite capture, exclusion, land or resource-access conflicts, unequal benefit distribution, or unintended social risks. A CRA Business Plan will be considered ready for conversion into a Demo-Farming Grant Implementation Package only after it has received: i. technical validation from the TSAC; and ii. inclusion, safeguards, and benefit-sharing endorsement from the GISC. Where either body identifies weaknesses, the plan may be returned to the cooperative for targeted revision. Where risks are correctable, the plan may be conditionally validated or endorsed, subject to specific technical, safeguards, budgetary, monitoring, or inclusion conditions. Where the plan presents intrinsic maladaptation risks, unresolved safeguards risks, or unacceptable benefit-sharing concerns, it will not proceed to grant agreement.

ANNEX E: Stakeholder Consultation Report

Date	Scope and outcome of consultation	Stakeholders Consulted
6 February 2026	Project Inception Workshop for the Adapt Mindanao Project The project inception workshop was conducted to inform stakeholders of the ADAPT Mindanao Project as well as the consultations that will be conducted throughout the Project Formulation Phase. Outcome of the Workshop The session started with the presentation of the project concept as well as the scope and purpose of the Project formulation phase. The workplan and timeline was presented so that stakeholders can prepare for the site visits that will be conducted throughout the project formulation phase. The participants agree with the proposed concept of the project and welcome the team to conduct the necessary assessments to be able to refine and identify interventions that will be most appropriate at the local context.	- MinDA - Usec. Janet Lopez, Sylvester Sales, James Doldolia, Kenny Brylle Mendez, Cyrille Solia - Department of Environment and Natural Resources – Foreign Assisted and Special Projects (representing AF-NDA): Conrado Bravante Jr. - USM Kabacan: Mel Chrisel Sales, Debbie Marie Versoza - MSU at Naawan: Anabelle Dece Espadero, Rey Capangpangan - Don Bosco Foundation for Sustainable Development: Mario Alolosan - RMA Foundation: Ellen Isturis - UNORKA: Ronita Buenaventura - LOBACO: Mark Anthony Jocson, Donwin Villodres - SIFARBCO: Leoderic Luzenada - Tammuwanan Agriculture Cooperative: Diego Tautho, Perpetuo Maningas - Malabog United Farmers Federation: Dennis Canalisio, Marcelina Libunao - Cotabato Mango Producers Cooperative: Chenette Sabio - LGU Midsayap: Hon. Rolando Sacdalan, Charlimagne Fugata, Sulaiman Tamamay Jr. - LGU Davao City: Hon. Ralph Abella, Danica Silva, Jasper Pepito,

9 March 2026

Davao City
Agriculture Office

Meeting with the City Agriculturist Office



The meeting introduced the project to the city agriculture office of Davao City which covers Paquibato district, one of the target project sites. The consultation revolved around the suggested concept of the project, the climate risk and vulnerability that they experience and gender considerations for the design of the project.

While the initial concept suggested citrus/pomelo, local agricultural officers recommended a strategic shift to cacao for long-term sustainability and highland vegetables (chopsuey ingredients) in the short-term, to better match the existing production strengths of the farmers of the Paquibato District and the land & soil suitability. The Paquibato District is characterized by sloping areas and riverbanks, making it highly susceptible to specific climatic events:

Drought: Identified as the most consistent risk, particularly impacting cacao. A notable four-month drought occurred in 2020.

Flooding and Landslides: Four barangays (Mabuhay, Panyal, Pagkimatok River, and Lower Makulang) located along the river are highly vulnerable to flooding. Heavy rains also trigger landslides in sloping areas.

Water scarcity in high elevations: the most reliable source of water is the river along the lowlands surrounding the area, there is a need to establish water supply and irrigation system especially in high elevations.

Post-Harvest Losses: Due to a lack of all-weather dryers and sorting facilities, farmers currently experience crop losses between 25% and 33% during transport (hauling) from high elevations. **Pests and Disease:** Unpredictable temperature shifts have led to increased pest pressure, necessitating better control mechanisms. The Malabog Farmers Federation, which includes over 30 sitios and several farmers' associations, is the primary target group for this area.

The City Agriculture Office already mandates gender-disaggregated reporting (male vs. female participation) under ISO standards. Several sitios in Paquibato are 100% IP-populated. The team must obtain the Free Prior and Informed Consent (FPIC) as required for infrastructure established within Ancestral Domains. There is high involvement in Rural Improvement Clubs (RIC) (Mostly Women), which will be leveraged for project activities.

Outcome of the meeting:

Information for the Climate Risk and Vulnerability Assessment and Gender Assessment was obtained from the key informants. The project obtained the buy-in of the City Agriculturist Office, and a focal was identified for the project. The stakeholders were also invited for a co-creation workshop to design the project. This was conducted at a later date.

- Pablita A. Almador, Senior Agriculturist
- Anthony Roy Carino, ABE Division
- Roy A. Jaga, Municipal Agriculturist for Paquibato
- Antonio R. Obsioma, City Agriculturist for Davao City
- Ralph Abella, City Councilor
- Vanessa Nessca, IPMS
- James Arly Danac, SHMS/ Chief, IDSD

10 March 2026

Sto. Tomas, Davao
del Norte

Meeting with the Cooperative Sto. Tomas Individual Farming Agrarian Reform Beneficiaries Cooperative (SIFARBCO)

- Albino J. Saguing, Vice Chairman
- George A. Villarin, BOD SifarbcO
- Delio C. Dominguez, BOD SifarbcO



The meeting with the target cooperative beneficiary started with the introduction of the project. This was followed by a focused group discussion centering on Climate Risks that the cooperatives face followed by a discussion exclusively for female participants for the gender assessment.

Initial findings include the following:

The cooperative faces multiple hazards that have shaped its production and livelihood strategies over the years. Panama disease, first noticed after Typhoon Pablo in 2015, remains a persistent biological threat, alongside Sigatoka and other pest infestations. Climate hazards compound these problems:

1. Prolonged droughts topple banana trees in the absence of good irrigation systems.
2. Heavy rains wash away costly chemicals, raising production expenses.
3. Typhoons and extreme weather events further destabilize yields and market supply.

These hazards affect men and women differently. Men, who are primarily responsible for field spraying and heavy labor, often migrate to construction or manual work during long droughts to sustain their families. Women, concentrated in sorting and post-harvest activities, see their income reduced when harvests decline, and most youth disengage from farming. Farmers noted the decreased market price of fresh banana at ₱120–150 per box while the desirable price is pegged at ₱350–500 per box.

Notably, there are no Indigenous Peoples or Persons with Disabilities represented in the cooperative, limiting inclusivity. Vulnerability is heightened by the cooperative's strong dependence on bananas as a single crop. This monocropping system increases sensitivity to disease outbreaks and climate variability.

While land ownership is often controlled by men, women manage household budgets and daily expenses. Training sessions are attended by both men and women, with women participants being more active in raising questions. Financial resilience is weak, as access to credit is dominated by high-interest lenders, with women being the primary borrowers.

Social capital, however, is strong since the coop has adopted the “bayanihan” system that provide mutual aid during communal farm works.

Note: Bayanihan system refers to the “Bayanihan spirit” which is the traditional Filipino value that embodies communal unity, cooperation, and mutual support.

- Nene Norma P. Garcia, Secretary
- Rosaminda G. Makiling, Elecom
- Bernardo B. Lozano, Conciliation and Mediation
- **Members:** Wilfredo L. Dignos; Bernadita Q. Acma; Carmelita R. Galay ; Glenie L. Sanchez ; Josefa C. Presao ; Joya P. Saporas ; Diosdada G. Manrique; Carlito A. Tapalla; Rose Ellen Tapalla; Joel T. Durdán ;Leselarde T. ; Durdán ; Marcial A. Isulat Sr. ; Virgilo A. Piamonte; George A. Villarin; Delio C. Dominguez; Rufine T. Alido;
- **Participants:** Male: 10 - Female: 13 - Total: 23

	Outcome of the meeting: The focus group discussion with the cooperative informed the team on information for the Climate Risk and Vulnerability Assessment and Gender Assessment. A women-only session provided a conducive space for discussion on women concerns. During the discussion, the farmers also had the opportunities to share what they think could be adaptive solutions the problems that they encounter. These data will serve as the foundation and basis of the project design. The project team obtained the buy-in of the target cooperative beneficiary. The stakeholders were also invited for a co-creation workshop to design the project. This was conducted at a later date.	
10 March 2026 Sto. Tomas Municipal Agriculturist Office	Meeting with Christian Dayaganon, Sto. Tomas Municipal Agriculture Technician  The meeting introduced the project to the Municipal agriculture office of Sto. Tomas, one of the target project sites. The consultation revolved around the suggested concept of the project, the climate risk and vulnerability that the municipality experience and gender considerations for the design of the project. Initial findings are indicated below: The municipality of Sto. Tomas faces significant climate-related vulnerabilities that directly affect its agricultural sector, particularly banana farming. The presence of Fusarium wilt, which can persist in the soil for up to 40 years, has forced around 70% of banana farmers to shift to alternative crops such as cardava banana, corn, and rice. Cavendish banana, which is a major livelihood source, are highly sensitive to flooding and extreme heat, leading to widespread farm abandonment. Climate variability marked by frequent heavy rains, flooding, and dry spells has compounded these challenges. For instance, water requirements for banana production average 5–7 mm/day, but rainfall fluctuates drastically, from as low as 80 mm/month during dry periods to 200 mm/month during the Habagat season. Extreme heat particularly affects sandy loam areas, causing banana trees to wilt. Irrigation, especially drip systems, has been identified as a potential adaptation measure, with the capacity to increase yields by up to 20%. Flooding remains a critical hazard, with two rivers (Libuganon and Tuganay) contributing to damage to farms and livelihoods. The lack of localized early warning systems leaves farmers reliant solely on PAGASA forecasts, limiting their preparedness. The LGU, through its NDRRMO and LCCAP, has allocated budgets for agriculture and climate adaptation, while the Department of Agriculture supplements these efforts with seeds and fertilizers. However, interventions remain reactive rather than anticipatory, highlighting the need for more robust climate risk management.	- Christian Dayaganon, Sto Tomas Municipal Agriculture Technician

	From a gender perspective, decision-making in farming households is often male-dominated, with land titles and insurance typically registered under men's names. Despite this, women play a crucial role in farm management and household finances. Training participation reflects this dynamic, with 60% of attendees being women, yet association memberships remain male-dominated. Outcome of the meeting: Information for the Climate Risk and Vulnerability Assessment and Gender Assessment was obtained from the key informants. The project obtained the buy-in of the City Agriculturist Office, and a focal was identified for the project. The stakeholders were also invited for a co-creation workshop to design the project. This was conducted at a later date.	
11 March 2026 Brgy. Batasan, Makilala, North Cotabato	Meeting with the Don Bosco Foundation for Sustainable Agriculture Inc. (DBFSDI)  The meeting with Don Bosco Foundation began with a technical discussion on organic alternatives to conventional chemical fungicides, specifically targeting the Sigatoka fungus in banana production. A key highlight was the documented success of the Don Bosco model, which utilizes a mixture of yogurt, milk, and honey to control Sigatoka and algae. It was noted that the Lactobacillus in yogurt effectively stops fungal growth on contact, providing a biodegradable and health-conscious alternative to hazardous fungicides. The group also discussed the use of Liberica coffee as a climate-resilient rootstock due to its extensive root system, which allows better nutrient mobilization and survival in changing environmental conditions. A significant portion of the meeting discussed the alarming trend of farmers' increasing chemical use, specifically systemic pesticides and Highly Hazardous Pesticides (HHP), in response to climate change-induced rainfall and precipitation. Participants noted that as climate risks intensify, farmers often resort to more dangerous nematicides that lack proper withdrawal periods, posing severe risks to both soil health and human safety. The discussion emphasized that these chemical dependencies often lead to financial strain and social issues within farming communities. The meeting also discussed that the project must look beyond simple production and consider the entire value chain, including processing and market access. There is high demand for organic products like calamansi concentrate, banana puree, ube powder, and coffee, particularly in China and Japan. However, significant barriers remain, such as high organic certification costs and strict Maximum Residue Limits (MRL) in export markets. The group discussed various certification paths and the need to establish processing facilities to ensure farmers have a steady income and products meet international quality standards.	- Ma. Helenita Gomela, Executive Director - Mario Alolosan, Operations



As part of the site visit, the UNIDO and MinDA team has a chance to visit a coffee farm in Brgy. Buhay, Makilala, North Cotabato, which demonstrated the application of organic production practices in Arabica coffee cultivation. The farm utilized mokusaku (wood vinegar or liquid smoke) as an organic fertilizer, which the farmer reported to be effective in enhancing productivity even in aging coffee trees. This practice highlights the role of bio-organic inputs in sustaining yield performance under resource-constrained conditions. The farmer also emphasized the technical support provided by DBFSDI, particularly in training on coffee pruning and rehabilitation techniques. These interventions were noted as critical in improving plant health, extending the productive lifespan of coffee trees, and strengthening the adaptive capacity of smallholder farmers to climate and market stresses.

Outcome of the Meeting:

During the meeting the Don Bosco Foundation for Sustainable Development Inc. shared their best practices using nature-based solutions to solve problems on the farm caused by climate change. They also shared that agroforestry can be a solution for farmers to adapt to climate change effects. In addition, DBFSDI also emphasized that there is a market for organic/ sustainably grown produce. Having a certification can substantially increase the farmers' income

12 March 2026

Midsayap, North Cotabato

Meeting with the Midsayap Allied Farmers and Fisherfolks Agriculture Cooperative (MAFFCO)



The meeting with the target cooperative beneficiary started with the introduction of the project and the process of the project formulation phase. This was followed by a focused group discussion centering on Climate Risks that the cooperatives face followed by a discussion exclusively for female participants for the gender assessment.

The MAFFCO was formally registered with the Cooperative Development Authority (CDA) in October 2025 and began its membership campaign in December 2025. The cooperative currently has more than 450 members and continues to recruit, with a long-term target of 5,000 farmers. Its focus is on agricultural commodities, particularly rice, corn, and high-value crops such as mango, banana, and coconut. The cooperative emphasizes that agriculture should be treated as a business, with collective action to strengthen food security and resilience against climate change. Mango production is a major livelihood in Midsayap, where approximately 40,000 trees are planted at a 10x10 spacing. However, only 15–20% of these trees are fruiting, largely due to financial constraints. The mango industry is dominated by handlers and contractors while the owners of the orchard are the commissioners. The cost of spraying per hectare ranges from ₱1,800–2,000, while total expenses for mango production can reach ₱200,000. Despite the local government unit (LGU) investing ₱7 million in a Plant and Food Research (PFR) study to improve export quality, adoption of recommended technologies remains low because contractual workers are not tree owners. Market

- Municipal Agriculturist: Sulaiman B. Tamamat Jr.; Michael Angelo Hernandez
- **Member:** Alex B. Blanchos; Adela G. Nieu; Merin Q. Ortega; Mari Anthony V. Almazan; Jolelin R. Faulara; Rosario V. Ibesate; Jessica A. Dinglasa; Merlinda B. Taupan; Metin D. Catungog; Samuel S. Iner; Brendaly R. Ines; Nora D. Henry.
- **Participants:** Male: 6 - Female: 8 - Total: 14

	opportunities exist, with buyers like KLT Fruits Inc. requiring one million kilos of mango annually at ₱48 per kilo. DA through the PRDP project also invested ₱37M in mango processing facility but farmers lack working capital for the facility operation. Climate risks significantly affect mango production. Midsayap's type IV climate, characterized by "wet and wetter, dry and dryer" seasons, exposes farmers to prolonged rains, strong winds, and insect infestations such as stem borers. These conditions result in reduced yields, loss of income, and wasted produce. The absence of early warning systems and standardized spraying protocols further exacerbates vulnerability. Farmers often imitate practices without understanding harmful effects, highlighting the need for capacity building, training, and education on sustainable methods. Proposed solutions include redesigning planting systems from 10x10 spacing to 3x3 with a maximum tree height of 8 feet, rehabilitation through pruning and soil nutrition. The cooperative envisions itself as a contractor, sharing responsibilities among members, supplying inputs at fair prices, and capacitating farmers both technically and financially. A holistic value chain approach is emphasized, addressing not only climate risks but also man-made disruptions such as conflict. Access to finance remains a critical need, as farmers cannot fully adopt protocols or invest in processing facilities without adequate support. From a gender perspective, women play vital roles in both farm and household management. They assist in processing produce, manage health care within families, and often take on house chores alongside men. However, financial stress disproportionately affects women, sometimes pushing them to seek work abroad when farm income is insufficient. Training participation depends on the topic, but both men and women are willing to attend and contribute ideas. Ensuring successors within families is also a concern, as youth are increasingly disengaged from farming. Encouraging young people to remain in agriculture requires integrating technology and modern approaches to make farming attractive and sustainable. Outcome of the Meeting: The focus group discussion with the cooperative informed the team on information for the Climate Risk and Vulnerability Assessment and Gender Assessment. A women-only session provided a conducive space for discussion on women concerns. During the discussion, the farmers also had the opportunities to share what they think could be adaptive solutions the problems that they encounter. These data will serve as the foundation and basis of the project design. The project team obtained the buy-in of the target cooperative beneficiary. The stakeholders were also invited for a co-creation workshop to design the project. This was conducted at a later date.	
12 March 2026 Midsayap, North Cotabato	Meeting with the Municipal Mayor, Mr. Rolando Sacdalan  The team met with Mayor Rolly Sacdalan, who expressed strong support for the project and outlined plans to establish a mega cooperative and develop a food terminal or buying station for fresh produce in Midsayap, aimed at strengthening market access and farmer integration into value chains. Outcome of the Meeting:	- Mr. Rolly Sacdalan, Municipal Mayor of Midsayap - Dr. Charlie Fugata, Municipal Agriculturist - Participants: Male: 2 - Female: 0 - Total: 2

	During the meeting, the Mayor also shared initiatives that they are currently undertaking to diversify farming activities as well as maximizing productivity in the farms. They introduced mulberry and production of silk worm cocoons using the mulberry leaves to diversify farming activities. The mayor expressed his full support to the project. They were also invited for a co-creation workshop to design	
12 March 2026 Brgy. Bitoka Midsayap, North Cotabato	Meeting with Cotabato Mango Producers Cooperative  The CMPC faces serious climate and institutional challenges. Extreme weather events—heavy rains, strong winds, flooding, and temperature shifts—disrupt flowering and fruiting, causing crop losses and poor harvest quality. Farmers’ reliance on contractors for spraying and pruning worsens mismanagement, leaving even large plantations financially insecure. At the cooperative level, frequent power failures and the lack of cold storage force farmers to sell mangoes cheaply during peak harvests, undermining resilience. Limited access to capital, weak technical training, and absence of FDA certification further restrict diversification into processed products. To strengthen adaptive capacity, CMPC highlights the need for farmer training, resilient infrastructure like solar-powered cold storage and backup energy, product diversification, and affordable financing. These integrated strategies would help the cooperative shift from reactive coping to proactive climate adaptation. In addition, the team visited CMPC’s mango processing facility in Brgy. Bitoka, a ₱37million investment provided by the Department of Agriculture under the PRDP, represents critical infrastructure for enhancing post-harvest capacity and improving the competitiveness of local mango production Outcome of the Meeting The focus group discussion with the cooperative informed the team on information for the Climate Risk and Vulnerability Assessment and Gender Assessment. A women-only session provided a conducive space for discussion on women concerns. During the discussion, the farmers also had the opportunities to share what they think could be adaptive solutions the problems that they encounter. These data will serve as the foundation and basis of the project design. The project team obtained the buy-in of the target cooperative beneficiary. The stakeholders were also invited for a co-creation workshop to design the project. This was conducted at a later date.	- German M. Collado, General Manager - Romeo B. Arde, BOD - Lilylydia Laguindano, Member - Concepcion Anito, Treasurer - Evelyn Yonting, Processor - Daisy G. Amaca, Secretary - Participants: Male: 2 - Female: 4 - Total: 6
13 March 2026 Kabacan, North Cotabato	Meeting with University of Southern Mindanao  The meeting with MinDA, UNIDO and USM discussed the proposed climate adaptation project for Mindanao's fruit and vegetable industry. Funded by the Adaptation Fund, the project will focus on five cooperative beneficiary sites across the region, including locations in Midsayap, Talakag, Paquibato, Santo Tomas, and Compostela. The meeting	- Dr. Jonald Pimentel, President - Dr. Debbie Marie Verzosa, Vice President RDE - Dr. Mel Chrisel Sales, Faculty Researcher - Participants: Male: 1 - Female: 2 - Total: 3

	focused on the possibility of including USM as part of the project as a science-based partner, particularly its expertise in soil management, nature-based solutions, and participatory research. Past USM studies on cacao and coconut demonstrated that correcting soil pH and using organic mulching significantly improved yields and drought resilience, leading to local policy adoption. The project will avoid a "one-size-fits-all" approach, and instead tailor interventions to specific soil types and micro-climates at each site as was suggested by the University. The university is envisioned as a stakeholder for research, capacity building, and institutional strengthening. A co-creation workshop is scheduled for March 30 to April 2 in Kidapawan, where beneficiaries, LGUs, and partners will finalize the project design. Outcome of the Meeting The meeting centered around the possibility of the University being one of the stakeholders specifically as a science-based partner, particularly its expertise in soil management, nature-based solutions, and participatory research. The University has existing work and can be an anchor in implementation of the project at the local level.	
16 March 2026 Compostela, Davao de Oro	Meeting with the Lower Bango Agriculture Cooperative  A consultative meeting was held between MINDA, UNIDO, and the representatives of the LOBACO cooperative in Compostela, Davao de Oro. The meeting confirmed that LOBACO has been selected as one of only five cooperative beneficiaries in Mindanao for a climate adaptation project funded by the Adaptation Fund. The cooperative, comprising 94 members who are farmers, landowners, and laborers, primarily cultivates corn and vegetables. Key climate-related challenges identified include seasonal flooding from November to February, intermittent drought, lack of irrigation, limited post-harvest facilities (e.g., dryers), and predatory lending from buyers who charge up to 10% monthly interest. Farmers also reported difficulty accessing formal credit, vulnerability to price drops during harvest, and damage to crops and infrastructure from flash floods. Women and children are also affected, with families sometimes evacuating to schools during severe flooding. In response to these challenges, the cooperative proposed several climate-resilient interventions. Priority requests included the establishment of greenhouses to protect vegetables from flooding and pests, a solar-powered irrigation system to address drought, and post-harvest facilities such as mechanical dryers and a warehouse. Additionally, the cooperative expressed interest in developing a community seed bank or nursery to reduce dependence on expensive commercial seeds and to ensure seed quality and availability. Access to working capital through the cooperative itself was also identified as critical to liberate farmers from exploitative traders. Outcome of the Meeting	- Member: Jessica Casila; Joy Villamor; Analyn Marababol; Mark John Solano ; Rondel Carion ;Edgar Espina ; Mira Fatima Cabanog ; Christy Mae ; Tabaranza; Emma Estrada ; Renerio Marababol ; Nicanor Flores Jr.; Donwin Leo Villodres ; Lhouraine Urgel ; Mark Jocson ; Rhyann J. Pestano; Jessica Beatrix Dayola ; Candido Cabangbang; Alvin Flores; Rachael Aguaviva; Jasper Pepito; Jaypee Cunman; Renato Flores; Fernando Flores - Participants: Male: 14 - Female: 9 - Total: 23

	The focus group discussion with the cooperative informed the team on information for the Climate Risk and Vulnerability Assessment and Gender Assessment. A women-only session provided a conducive space for discussion on women concerns. During the discussion, the farmers also had the opportunities to share what they think could be adaptive solutions the problems that they encounter. These data will serve as the foundation and basis of the project design. The project team obtained the buy-in of the target cooperative beneficiary. The stakeholders were also invited for a co-creation workshop to design the project. This was conducted at a later date.	
16 March 2026 Compostela, Davao de Oro	Meeting with Compostela Municipal Mayor Mr. Levi Ebdao The team had the chance to meet with the Mayor of Compostela, together with his municipal agriculture officer. He was briefed about the project and he expressed his cooperation and full support to the project and also to provide government land for the post-harvest facility for the LOBACO farmers. Outcome of the Meeting The Mayor was briefed about the project and the team got his buy-in. The mayor even committed government land if needed for the project.	- Mr. Levi Ebdao, Mayor of Compostela
17 March 2026 Paquibato District, Davao City	Meeting with the Malabog United Farmers Federation  The meeting started with the introduction of the many farmers associations, chapters, women's groups, and rural improvement clubs (RICs) which are members of the Malabog United Farmers Federation (with members over 800). It is good to note that many women farmers are members of this big cooperative in Davao City's Paquibato District, which was classified a few years back as a geographically isolated and depressed area (GIDA). The discussion moved on to the many climate-related hazards and disasters that the famer communities experienced through the years and how they can potentially enhance their resilience especially in their farming practices as source of livelihood. The following specific climatic events were discussed: extreme weather events (heavy rains causing landslides and flooding) and long droughts which exacerbated water scarcity in the highland farms. Due to these difficult situations, post-harvest losses are affected especially that there are no post-harvest facilities and transportation is also lacking. In addition, the occurrence of pests and diseases is also observed especially during extreme weather events, unpredictable temperature changes, and lack of good farming practices. The farmers federation seeks assistance from the LGU to support them through the establishment of their solar-powered irrigation systems, that spans many barangays and farmlands at high elevation. Outcome of the Meeting The focus group discussion with the cooperative informed the team on information for the Climate Risk and Vulnerability Assessment and Gender Assessment. A women-only session provided a conducive space for discussion	- Mary Joy Lagumbay, Women's President - Ronda Sabate, Women's & RIC Pres - Rocila Bantayan, Women's & RIC Pres - Analisa Serenio, Women's President - Mildred Quintinita, Farmers President - Josefina Lamban, Women's & RIC Pres - Lee Manceras, Women's President - Eliezar Braga Jr., RISEUP - Members: Edgar Gulomor; Jerry Sison; Alfredo Pudol; Johnny Guirive; Emalinda Lagumbay; Faustino Yana; Chrisjan Salem; Dennis Canalisio; Marcelina Libonao; Merbeta Gequiam; Mila Cocong; Rolando Desales; Ellen Grace Isturis; Ranny Arcual

	on women concerns. During the discussion, the farmers also had the opportunities to share what they think could be adaptive solutions the problems that they encounter. These data will serve as the foundation and basis of the project design. The project team obtained the buy-in of the target cooperative beneficiary. The stakeholders were also invited for a co-creation workshop to design the project. This was conducted at a later date.	
18 March 2026 Brgy. Miarayon, Talakag, Bukidnon	Meeting with the Talaandig Farmers Agriculture Cooperative (TFAC)  The cooperative, composed of Indigenous Peoples (IP) farmers, reported that climate change has severely affected their farming systems. Key challenges include deforestation in upstream areas leading to soil erosion and reduced water supply, extreme soil acidity, lack of irrigation, and intermittent drought. Farmers also struggle with low productivity, limited market access, and predatory lending from micro-financing institutions charging up to 21% monthly interest. Additionally, the cooperative noted that oversupply and importation of cheap vegetables (e.g., carrots from China) have depressed local prices. Women farmers are actively involved in farming and training, while men are often busy with farm labor. The community also faces internal governance challenges, including resistance from some members of the Tribal Council of Elders to participate in externally driven projects. In response, the project team proposed several science-based and community-driven interventions. These include transitioning to organic farming and agroforestry to address soil acidity and erosion, with technical assistance from partner universities such as the University of Southern Mindanao (USM) for soil analysis and nutrient management. A priority request is the establishment of a community-led water supply system, to be managed by the Barangay Local Government Unit (LGU) rather than the cooperative alone, to ensure equitable access for all residents. The project will also require securing a Free and Prior Informed Consent (FPIC) from the NCIP to respect IP governance structures. Other proposed interventions include capacity building on organic farming, post-harvest facilities, and alternative financing mechanisms to free farmers from usurious lenders. The total project budget will be shared among five beneficiary cooperatives, with an emphasis on community-level solutions to climate vulnerabilities. Outcome of the Meeting The focus group discussion with the cooperative informed the team on information for the Climate Risk and Vulnerability Assessment and Gender Assessment. A women-only session provided a conducive space for discussion on women concerns. During the discussion, the farmers also had the opportunities to share what they think could be adaptive solutions the problems that they encounter. These data will serve as the foundation and basis of the project design. The project team obtained the buy-in of the target cooperative beneficiary. The stakeholders were also invited for a co-creation workshop to design the project. This was conducted at a later date.	- Lezel Dela Cerna, Chairman - Members: Gelbert Asulod; Renald Angel; Noli Dela Cerna; Anafe Sihagan; Jazen Edera; Ricky L. Angel; Jeneva T. Angel; Enriqueta F. Samontao; Erlic Angel; Yolanda Angel; Nancy Dacion; Ereneo Dacion; Geralyn Dela Cerna; Violita Samontao; Marivic Sinulay; Gerlita Sulatan; Rey Lito Angel; Ermilito Angel; Ulysis Uba-an; Dennis Salido; Jessel Linog; Jaysierose Angel; Erniro Angel; Marjan Angel; Precy Angel; Alex Besto; Maribel D. Dangan; - Participants: Male: 12 - Female: 16 - Total: 28
19 March 2026	Meeting with Talakag Mayor Renz Sulatan and Municipal Agriculturist Liezl Barros	- Renz Sulatan, Mayor of Talakag



The consultation meeting with the Local Chief Executive of Talakag, Mayor Renz Sulatan, together with Municipal Agriculturist Liezl Barros, underscored the integral role of the LGU and MAO in driving the successful implementation of the project. Mayor Sulatan emphasized that this intervention is timely and crucial, noting that Talakag currently ranks first in the Province of Bukidnon for poverty incidence, at approximately 40.5%. He highlighted that strengthening agricultural resilience and market access will be vital in addressing this challenge and improving livelihoods across the municipality.

In line with this, plans are underway to link the Talaandig Farmers Agriculture Cooperative (TFAC) to FICCO, the operator of the Food Terminal. The MAO will initiate this linkage, enabling farmers to consolidate their produce at the terminal, which will serve as a central hub from farm to market. This intervention is expected to significantly reduce logistics costs and improve efficiency in distribution. In parallel, financing assistance mechanisms will be explored to support farmers in covering operational expenses, thereby ensuring both economic viability and sustainability of cooperative operations.

Outcome of the Meeting

The Mayor was briefed about the project and the team got his buy-in. The Mayor expressed his full support to the project and told the team to let him know how he can help especially during implementation.

- Liezl Barros, Municipal Agriculturist
- **Participants:** Male: 1 - Female: 1 - Total: 2

20 March 2026

Naawan, Misamis Oriental

Meeting with Mindanao State University at Naawan



The meeting with MSU-Naawan centered the possible role of the university as a stakeholder in the project. The university presented recent studies on climate change and agriculture. The presentation indicated that drought conditions are expected to increase pests and diseases, directly threatening overall productivity. Conversely, extreme wet seasons will stunt crop growth; for example, crops like eggplant are highly susceptible to rotting during heavy rains, necessitating advanced post-harvest interventions to prolong freshness and marketability. These environmental shifts require a robust capacity-building initiative to help producers adapt to the evolving effects of climate change on their yields.

From a Gender Analysis perspective, climate change is actively altering the labor landscape on the farm. The increasing intensity of heat and rising temperatures have made outdoor agricultural work significantly more difficult, resulting in women avoiding the farms because the weather is too hot. This trend underscores the need for gender-

- Elnor C. Roa, Chancellor
- Rey Y. Capangpangan, VCRIGE
- Frederick B. Cabactulan, VCSP
- Anabelle Dece Espader, Research Director
- Rida D. Perpetua, Director
- Sherley Ann Inocente, OVCRIGE
- Rhoey F. Castillo, Campus Secretary
- **Faculty:** Jolibe B. Llido; Vergitt B. Magtolol; Shirah Y. Cunatramca; Christian Fel S. Batocoy
- **Participants:** Male: 4 - Female: 7 - Total: 11

	responsive interventions that might transition women's roles into the post-harvest and processing sectors, which provide more controlled environments compared to direct field production. Outcome of the Meeting The meeting centered around the possibility of the University being one of the stakeholders specifically as a science-based partner. The University has existing work and can be an anchor in implementation of the project at the local level.	
23 March 2026 Cris Inn, Tagum City	Co-designing and Capacity Building Workshop The activity consists of a two-day mission combining a climate adaptation training session and a facilitated co-design workshop with selected beneficiaries, local government representatives, and project partners in Kidapawan City. It aims to strengthen stakeholders' understanding of climate risks affecting the fruit and vegetable value chain and to translate the preliminary findings of the Climate Risk and Vulnerability Assessment (CRVA) and Gender Assessment (GA) into practical, locally grounded adaptation options for the formulation of the full Adaptation Fund project proposal. The Technical Lead presented the preliminary findings of the Climate Risk and Vulnerability Assessment and Gender Assessment and facilitated plenary discussion to gather comments, validate key issues, and capture local perspectives that may further strengthen the assessments. On the second part of the activity, participants engaged in guided group work and plenary exchanges to identify adaptation needs, discuss feasible solutions, and prioritize options for the target sites and beneficiary groups. Outcome of the Workshop The stakeholders present have enhanced understanding of climate adaptation concepts and their relevance to the project context. Preliminary findings on the Climate Risk and Vulnerability Assessment and Gender Assessment were validated and refined. A set of prioritized, locally relevant, and gender-responsive adaptation options were identified through the co-design sessions. Concrete technical inputs to support the refinement of project components and the preparation of the full Adaptation Fund proposal were obtained.	- LOBACO: Donwin Villodres, Mark Anthony Jocson, Jessica Beatrix Dayola, Lhouraine Urgel, Rhyann Destano - UNORKA: Ronita Buenaventura, Jerome Amulata, Joselito Tabora - DAMAFACO: Celio Quirino, Woojin Park - SIFARBCO: Mar Jan Isulat, Leoderic Luzenada - GMARBAI: Francisco Rawario - BARBCO: Guadalupe Ocial, Alfonso Sudo - MUFF: Marcelina Libunao, Dennis Canaliso - MinDA: Rodrigo Giducos, Cyrille Solia, Nesamae Ahergis, Sylvester Sales, Merly Cruz, Rachael Aguaviva - KLT Fruits: Ben Ella, Marco Orcajada - RMA Foundation: Ellen Isturis, Jose Jerry Isturis - LGU Compostela : Ernie Occena - LGU Davao City : Anthony Roy Carino - LGU Sto Tomas: Elmer Degorio - KBI: Renea Tan
30 March 2026	Co-designing and Capacity Building Workshop	- Talaandig Farmers Agriculture Cooperative:

Kidapawan City	The activity consists of a two-day mission combining a climate adaptation training session and a facilitated co-design workshop with selected beneficiaries, local government representatives, and project partners in Kidapawan City. It aims to strengthen stakeholders' understanding of climate risks affecting the fruit and vegetable value chain and to translate the preliminary findings of the Climate Risk and Vulnerability Assessment (CRVA) and Gender Assessment (GA) into practical, locally grounded adaptation options for the formulation of the full Adaptation Fund project proposal. The Technical Lead presented the preliminary findings of the Climate Risk and Vulnerability Assessment and Gender Assessment and facilitated plenary discussion to gather comments, validate key issues, and capture local perspectives that may further strengthen the assessments. On the second part of the activity, participants engaged in guided group work and plenary exchanges to identify adaptation needs, discuss feasible solutions, and prioritize options for the target sites and beneficiary groups. Outcome of the Workshop The stakeholders present have enhanced understanding of climate adaptation concepts and their relevance to the project context. Preliminary findings on the Climate Risk and Vulnerability Assessment and Gender Assessment were validated and refined. A set of prioritized, locally relevant, and gender-responsive adaptation options were identified through the co-design sessions. Concrete technical inputs to support the refinement of project components and the preparation of the full Adaptation Fund proposal were obtained.	Razel Catubay, Noli Dela Cerna Sr - Koppa: Reynaldo Nitura - MAFFCO: Jay Anthony Ligsay - CMPC: Romeo B Arce - Sox Organic Producers and Processors Assoc. Inc.: Renato Dela Cruz - Tulunan Aromatic Coco Farmers Coop: Ma. Lourdes Lumbuncan, Efren Murillo, Efryl Murillo - MinDA: Olie Dagala, Gracel Jean Baguio, Cyrille Solia, Deoan Carlo Lugay, Regine Botenes, Sylvester Sales, Merly Cruz - LGU- Midsayap: Rosario Ibesate, Jocelyn Facturan, Charlimagne Fugata, Allan Ceballos - LGU- Talakag: Ruth Raluto - KLT Fruits: Ben Ella, Marlo Orcajada - Phoenix Larrrel Agriventures: Brize Derpo - Green Tropics: Fred Fuedeluces - Don Bosco Foundation for Sustainable Development: MHR Gamek, Michael Daces - USM Kabacan: Carlito Basay Jr. - MSU Naawan: Anabelle Espadero, Cristian Bactotoy, Jolibe LLido, Darwin Bafet: Don Bosco Foundation: Michael Daces, Mario Alolosan - KBI Renea Tan
1 April 2026 UN House	Meeting with Food and Agriculture Office (FAO) The goal of the meeting is to align and find synergies on the current FAO initiatives in the Philippines especially the Green Climate Fund Project being implemented the Adapting Philippine Agriculture to Climate Change (APA) Project.	- Dr. Lionel Dabbadie, FAO Representative to the Philippines

	Outcome of the Meeting: The scope of the APA project was discussed, and no overlaps were identified as the priority commodities for the APA project are rice, corn and coconut, with a possibility of extending to coffee, cacao, and other high value crops. There are also components of the APA project that are in particular very relevant to the ADAPT Mindanao Project specifically on climate information systems (CIS). Further discussion with Philippine Atmospheric, Geophysical and Astronomical Services Administration shall be organized especially once implementation starts for project components that include the early warning devices as well as improving climate information systems.	- Mr. Ryan Vita, FAO focal for the GCF APA Project - Jake Evangelio, FAO
1 April 2026 UN House	Meeting with People in Need The objective is to assess the capacity is to be for potential project implementation and the focus area of their work in the Philippines. Outcome of the Meeting People in Need has strong grassroots presence and have been working with seaweed farmers for an EU-funded project. They also have existing initiatives on early warning systems. Further assessment has to be done once they apply to the call for proposal for executing entity.	- Pascal Arthaud, Country Director for People in Need
8 April 2026 Development Bank of the Philippines Main Office	Meeting with the Development Bank of the Philippines The goal of the meeting with the Development Bank of the Philippines is to present the project concept and explore areas of collaboration specifically for financing component of the project for future scalability and expansion. It is also aimed to explore their interest in partnering to be part of the sub-working group of Component 3 of the project. Outcome of the Meeting Mr. Noli Cruz emphasized the importance of value chain approach in addressing challenges in the agriculture sector. Mr. Cruz underscored the importance of market linkage in any agricultural intervention. Rui emphasized the methodology/ modality in which the demo farming component of the project will support the integration of the disadvantaged into the value chain. This demo farming component will ensure that the cooperatives are capacitated and are ready to implement bankable projects during the implementation of the project. The ultimate objective for the beneficiaries is for them to be able to access finance on their own. Mr. Cruz mentioned that they have several skills development programs in the branches and have concessional loan programs that can lend to cooperatives.	- Rustico Noli Cruz, Vice President for Program Development and Management Group - Engr. Jericho Martinez, Senior Manager, Program Development and Management Department
8 April 2026	Meeting with Ms. Gilda Garibay, Past UNIDO National Project Manager for the Food Cold Chain Project (GEF) The meeting aims to learn from past UNIDO projects on best practices and important points for the success of the projects. Outcome of the Meeting Gilda emphasized two main important components for the success of the project. First, is that an ecosystem should be in place specifically at the policy level to promote the adoption of new innovative technologies. Financing is important to scale up operations. It is important to be able to inform and capacitate beneficiaries to be able to access finance independently. In addition, the project worked with the Cold Chain Association of the Philippines; during	- Gilda Garibay, Past Project Manager of the UNIDO Food Cold Chain Project

	implementation, the association can be tapped if they have members operating in the target sites to address the fragmented logistics that also affect post-harvest losses and quality of products.	
13 April 2026 UN House	Meeting with Ms. Pamela Cea Borlaza, Project Manager of the UNIDO AF-Project Water, Energy, Food Nexus in Tawi-Tawi The meeting aims to explore the possible synergies with the AF project that will be implemented in the Philippines “the Water Energy Food Nexus Project” which aims to establish a water desalination plant in Tawi-Tawi as well as enhance the seaweed value chain in the province. Outcome of the Meeting Geographically the value chain cannot be integrated but a key point of possible synergy can be on the Component 1 of the ADAPT Mindanao Project specifically on the preparation of localized adaptation plan. Methodology and lessons learned can be applied to the WEF Project where they can also formulate localized adaptation plans that can be implemented to the seaweed sector using the same principles and methodology used for the ADAPT Mindanao Project.	- Meeting with Ms. Pamela Cea-Borlaza, Manager of the AF Project in Tawi-Tawi
13 April 2026 KLT Fruits Inc., Dasmariñas, Cavite	Meeting with KLT Fruits Inc. The main goal of the meeting is to understand the business model of KLT Fruits and find out possible areas of synergy as well as understand the operations of a fruit processing company. Outcome of the Meeting KLT fruits has several products in their production line, they are particularly interested with mangoes as this is one of their product lines. They also use calamansi, banana, purple yam, and banana as their raw materials. They agree with the approach of the project to capacitate the farmers to be able to increase their adaptive capacity. KLT fruits stand ready for any possible collaboration including developing new and innovative products.	- Peter Sia, Owner KLT Fruits Inc. - Jojo Villanueva, Manufacturing Director - Jennifer Potante, Plant Manger - Benedict Ella, Purchasing Manager
14 April 2026 Landbank Plaza, Malate Manila	Meeting with the Land Bank of the Philippines The objective of the meeting is to orient the Landbank of the Philippines of the upcoming project and explore possible areas of collaboration or synergy with respect to their existing programs for farmers. In addition, the meeting explored the possibility of the Landbank to be the lead for component 3 of the project which includes financing and investment. Outcome of the Meeting Landbank used to have several lending programs to cater to different industries (high value crops, aquaculture and fisheries, poultry and livestock) which was rationalized in 2024 to one program “Agrisenso” Program. Landbank have different trainings and capacity building activities to prospective and existing borrowers. They also have Financial Literacy trainings for famrrers and fisherfolks. They have the funds and usually outsource the training to other agencies (Agriculture Training Institute, Technical Education and Skills Development Authority, etc). The LANDBANK ASCEND (Agri-Fishery Support through Capability Enhancement for Nationwide Development) program is a holistic capacity-building initiative. It provides farmers, fishers, and agrarian reform beneficiaries with essential training, digital financial literacy, and market linkages to boost their agribusinesses. ASCEND serves as the educational and support	- Management Division 1: Danilo Crobalde, Edison Reyes, Edgardo De Guzman - Environment Project Management Division: Raya Bautista

	pillar to the broader LANDBANK AGRISENSO Plus Lending Program, which offers affordable credit at a lowered fixed interest rate for small agricultural producers. The Landbank also has a Foundation (Landbank Countryside Development Foundation, Inc.) that serves as their training arm.	
14 April 2026 Climate Change Commission Office, Manila	Meeting with the Climate Change Commission The Climate Change Commission is the secretariat for the Nationally Determined Contributions and National Action Plan (NAP) for Climate Change. The meeting aims to inform and get the buy in of the Climate Change Commission and ensure alignment of the project to the NAP. It is also important to discuss component 1 that includes locally led adaptation plans to align with existing activities and initiatives of the Commission. Outcome of the Meeting It was acknowledged that the concept and the main components of the project is aligned with the NAP. The Climate Change Commission commends the approach of the project being aligned with the localization efforts for the NAP. There were several plans mentioned during the meeting where climate adaptation can be mainstreamed such as the Comprehensive Development Plan, Local Climate Change Adaptation Plan, and the Comprehensive Land Use Plan. It was also mentioned that there is a need to strengthen data management as well as collection at the local level. Capacity building activities are needed. The CCC is leading a NAP coordinating partners group which can be a network or avenue to advocate and share knowledge generated from the project. It was also mentioned to highlight interventions that have co-benefits. In terms of participation for component 1, the role of the Climate Change Commission can be further discussed during the implementation of the project.	- Jerome Ilagan, Chief, Policy Research and Development Division - Ethan John Perona, Policy Research and Development Division - Venisse Navarro, Office of the Vice Chairperson and Executive Director - Lenard Jaynel Palido, Special Projects Division
April 14, 2026 Department of Agriculture Office, Quezon City	Meeting with the Department of Agriculture Climate Resilient Agriculture Office (CRAO) The Department of Agriculture Climate Resilient Agriculture Office is the main office tasked to provide strategic direction and oversight in mobilizing the Department of Agriculture's resources and capacities towards achieving climate resilient agriculture agenda. The agenda encompasses creating climate resilient food-systems and achieving sustainable increases in productivity, food self-sufficiency, and incomes of farmers and fisherfolk, all in the face of a constantly-changing climate. The objective of the meeting was to validate the proposed project interventions vis-à-vis increasing climate resilience of the farmers. Outcome of the Meeting The CRAO supports the approach of the project in increasing the resilience of farmers. Aligned with their approach of having a localized/community-based interventions, the project syncs with the mission of the CRAO. The CRAO has a program for specific provinces called AMIA villages (Adaptation and Mitigation Initiative in Agriculture). These villages serve as demo-sites of climate resilient practices in agriculture. It was discussed that Climate Information should be strengthened beyond data dissemination but translation of this information into actionable items. Challenge remains on how to cascade information to the farmers. During implementation, it is recommended to consider learning visits	- Agnes Catherine Miranda, Director, Department of Agriculture Climate Resilient Agriculture Office - Staff: Perla Baltazar, Anna Capricho, Hope Ramos

	to AMIA villages to build on existing initiatives and practices that can be replicated and applied to the proposed project sites. It was also suggested to review whether interventions has mitigation as co-benefit. Department of Agriculture Regional Field Offices can be capacitated to enhance their farm advisory services.	
April 14, 2026 Department of Agriculture Office, Quezon City	Meeting with the Green Climate Fund Project National Project Management Office – Department of Agriculture The objective of the meeting is to inform the colleagues from the Project Management Office of the Green Climate Fund being implemented by FAO in the country of the project and explore areas of synergy. Outcome of the Meeting The National Project Management Office of the APA project was informed on the proposed approach/ intervention of the project. Main points of collaboration can include exchange of information through the studies and assessments being done through the projects. There is no overlap in commodities as the program aims to focus on Rice, Corn, and Coconut. Climate Information System (CIS) is also included in the scope of the APA project which is important to the ADAPT Mindanao Project. CIS can also be a point of collaboration/synergy between the 2 projects. Another point of synergy can be the climate resilient agriculture trainings that are designed for the APA project.	- Jemflor Ann Santiago, National Project Coordinator - Lorraine Mae Motas, National Climate Information Specialist - Gabriel Angelo Valeriano, National Technical Operations Officer
11 May 2026 MinDA Office, Davao City	Validation Workshop for Adapt Mindanao The validation workshop is the final step before the proposal is finalized and submitted to the Adaptation Fund. The objectives are the following: 1. Present the proposed project interventions alongside the key project-site level findings of the CRVA and Gender Analysis to validate that the intervention package is appropriately targeted and responsive to site-specific adaptation barriers. 2. Present the initial ESIA findings and the related environmental and social management requirements, including how these will be operationalized through the ESMP/ESMF to guide implementation, risk mitigation and compliance. 3. Gather and consolidate feedback from beneficiaries and project partners to validate, refine, and finalize the project proposal, ensuring that the proposed interventions and implementation arrangements are feasible, context-appropriate, and responsive to observed climate impacts and identified climate risks. Outcome of the Workshop The Executive Director of the Mindanao Development Authority (MinDA), Undersecretary Janet Lopez opened the session by emphasizing that climate change is imminent and is felt at the local level. She underscored the importance of the project ADAPT-Mindanao to be able to capacitate and enhance adaptability of the farmers to deal with the adverse effects of climate change. The validation workshop started with the presentation of overview and of the project with the components and envisioned interventions for the project. In general, the stakeholders agreed to the project design, with minor input and comments. The session resulted in a confirmed intervention package comprising the theory of change, component structure, proposed interventions. In addition, the following points in relation to the project components were raised: 1. Component 1 is the Local Empowerment for Adaptation Decision-Making (LEAD) component Fruits and Vegetable Value Chain Adaptation Packages will be developed by technical working groups aligned with	- Mindanao Development Authority - Climate Change Commission - Department of Agriculture Central Office - Department of Agriculture Region 12 - Municipal Agriculture Office of Midsayap - Municipal Agriculture Office of Sto. Tomas - Municipal Agriculture Office of Compostela - City Agriculture Office of Davao City - Sto. Tomas Individual Farming Agrarian Reform Beneficiaries Cooperative - Lower Bango Agriculture Cooperative - Cotabato Mango Producers Cooperative - Talaandig Farmers Agriculture Cooperative - Malabog United Farmers Federation, Inc.

existing LC-CAPs, translating adaptation priorities into prioritized PPAs at the barangay level — with co-op participation explicitly required to ensure bottom-up representation. (An obstacle for these workshops is budget constraint to include all the cooperatives in the Municipality.) A Mindanao Fruits and Vegetable Value Chain Adaptation Action Plan (2030–2052) will be owned by Minda, consolidating assessments, sector-specific studies, and investment roadmaps to guide project and LGU decisions

2. The municipal agriculturists agrees with the intervention and emphasizes with the alignment of this component to the Local Climate Change Adaptation Plan (LCCAP) is crucial including Comprehensive and Land Use Plan (CLUP).
3. They also mentioned that strong coordination with the Climate Change Commission regarding the guidelines for the formulation of the Local Climate Change Adaptation Plan (LCCAP) is crucial including Comprehensive and Land Use Plan (CLUP).
4. Component 2, ADAPT Centers, addresses insufficient post-harvest infrastructure and limited value-addition know-how — centers will be placed under municipal agriculture offices, designed to be semi-autonomous from the power grid, and co-managed with first-mover cooperatives.
5. The Adapt-to-Market training program under Component 2 will run five cohorts of 40 participants each, with a three-month learning cycle culminating in a value-addition demonstration case for buyers and processors — directly targeting market access gaps and middleman dependency.
6. Component 3, INVEST, targets both sides of the capital market gap: low financial literacy among co-ops and farmers on the demand side, and insufficient climate-risk understanding among local financing institutions on the supply side.
7. Demo farming under Component 3 will cover one to three hectares per cooperative, with business plans technically validated before implementation — serving as proof of concept to unlock concessional financing from institutions such as Land Bank, rather than creating a revolving fund.
8. Participants raised concerns about restrictive loan requirements and insufficient regional allocations — e.g., only 10–15 million pesos available in Region 11 for banana financing — prompting a commitment to redesign Component 3 to assess financing gaps and identify the most accessible concessional mechanisms per cooperative context.

The first afternoon session focused on the validation safeguards, resulting in agreed directions for the operationalization of the ESMP/ESMF, including the assessment of unidentified sub-projects.

1. LCI Environment Inc. presented the Environment and Social Impact Assessment (ESIA) and validated information that was obtained in a previous mission
2. Adaptation Fund's 15 Environmental and Social Policy Principles (AFESTP) were outlined, covering labor standards, access and equity, human rights, gender equity, indigenous peoples, involuntary resettlement, biodiversity, pollution prevention, cultural heritage, and sustainable land use.
3. UNIDO's 12 Environmental Social Safeguards Policies largely mirror the AF's 15 principles; both frameworks require compliance with local and national regulations first, then international standards.
4. The participants also underwent an exercise on the Adaptation Fund and UNIDO Environmental and Social Safeguards to further understand the possible effects of the project in the project site.
5. An emphasis on the Ancestral domain was discussed especially to the project area in Talakag Bukidnon, where majority of the target beneficiaries are Indigenous People. There will be a need to formulate Indigenous People Plan or IPPs especially in Talakag or in areas where there are IPs involved.

- Midsayap Allied Farmers and Fisherfolks Agriculture Cooperative
- UNORKA Mindanao
- University of Southern Mindanao, Kabacan
- RMA Foundation Inc.
- United Nations Industrial Development Organization (HQ and Field Office)

6. The Free Prior Information and Consent was also raised prompting the need to secure in areas where UNIDO plans to operate during the course of implementation. There will be different processes involved depending on the Region.

The last session focused on the Gender Assessment and Gender Action Plan

7. Gender Assessment findings are as follows women are highly active in post-harvest, budgeting, and marketing but underrepresented in formal records, land titles, and cooperative board positions, creating gaps in access to project benefit.
8. Rural Improvement Clubs (RICs) were highlighted as active, women-led organizations already engaged in value-added processing (wine, vinegar, banana fiber); integrating them as cooperative partners or indirect beneficiaries was proposed to strengthen inclusivity.
9. A minimum 30% participation target for women was confirmed, with an ideal range of 30–50% representation across women, youth, PWD, and senior beneficiaries for both direct and indirect project beneficiaries.
10. In addition, emphasis on engaging the youth was raised during the session as one of the challenges of Philippine Agriculture is aging farmers.
11. The project has identified strong opportunities to strengthen Gender Equality
 - Build on women's existing roles in post-harvest, processing, quality control, cooperative administration and household finance
 - Support women's participation in ADAPT Centre governance, not only as users but as decision-makers
 - Reach men where they hold decision-making authority over farm investment and technology adoption
 - Strengthen women's access to climate information, finance-readiness support and market opportunities

The UNIDO Country Representative (UCR), Mr. Teddy Monroy delivered the Closing Remarks, underscoring the importance of being able to codesign a project that is meaningful and impactful on the ground. He emphasized that climate change is real and can be felt especially for the agriculture sector. It is, therefore, important to learn new innovative ways in agriculture to be able to overcome the challenges not only to climate change but also food security.

The UCR made it clear that the Adaptation Fund is not expecting co-financing from partners, but everyone's cooperation and participation is crucial. This project does not intend to replace what government already knows how to deliver. It will focus on bringing us all together to enhance our collective capacities to make a difference.

The UCR further reiterated UNIDO and MinDA commitment to have the project approved by the Adaptation Fund the soonest.

ANNEX D: Gender Assessment & Gender Action Plan

EXECUTIVE SUMMARY

This document sets out the gender dimensions of ADAPT Mindanao, a climate adaptation project supporting smallholder farmers, cooperatives, agrarian reform beneficiaries and Indigenous Peoples in the fruit and vegetable value chains of Mindanao's Regions 10, 11 and 12. The Gender Assessment and Gender Action Plan (GAP) are integral to the full proposal and aligned with the Adaptation Fund Gender Policy and the gender provisions of its Environmental and Social Policy.

The gender analysis shows that climate vulnerability in these value chains is not gender neutral. Women are deeply involved in post-harvest work, cooperative administration, marketing, bookkeeping and household financial management, yet their contributions are often unpaid, informal or excluded from decision-making. Men are more likely to control land, machinery and production decisions and to hold cooperative leadership positions, which positions them to capture adaptation benefits unless the project designs against it. Climate shocks such as drought, flooding, extreme heat and crop loss intensify these existing inequalities. Women often carry additional responsibilities for food security, care work and household recovery, while Indigenous women face compounded barriers linked to poverty, distance from services, cultural norms and limited institutional representation. The Gender Action Plan therefore aims to ensure that women are treated not only as vulnerable beneficiaries but as active participants in climate adaptation. It provides for inclusive training, stronger women's participation in cooperatives, gender-responsive post-harvest infrastructure, accessible finance mechanisms, sex-disaggregated monitoring and a grievance mechanism accessible to women and marginalized groups.

Overall, the analysis argues that climate resilience will be more effective where women's labor, knowledge and decision-making roles are formally recognized and supported, and where men are engaged as partners in gender-equitable adaptation, across the project.

PART I: GENDER ASSESSMENT

1. INTRODUCTION

1.1 Project context from a gender perspective

ADAPT Mindanao advances adaptation for agro-industry and post-harvest transformation in the fruits and vegetables value chains of Mindanao's Regions 10, 11 and 12. Through three components, LEAD, PROCESS and INVEST, it strengthens the adaptive capacity of smallholder farmers, small and micro cooperatives, agrarian reform beneficiaries and Indigenous Peoples facing erratic rainfall, more frequent flooding, drought and extreme temperatures that are already disrupting production cycles, crop quality and market access in a sector with limited post-harvest infrastructure and restricted access to finance. The assessment was conducted across five sites during formulation: Midsayap in North Cotabato, Talakag in Bukidnon, Compostela in Davao de Oro, Santo Tomas in Davao del Norte and Paquibato district in Davao City. As the design was finalized, four sites were confirmed as active. Part I therefore presents the evidence base from all five assessed sites, while the Gender Action Plan (GAP) in Part II addresses the four active project sites.

Gender is integral to the project's theory of change, and understanding it here means examining the roles and norms shaping both women's and men's behavior, since both determine whether adaptation benefits are equitably distributed and acted upon. Women contribute substantially to farm labor and are the primary actors in post-harvest handling, processing, record-keeping and marketing, the domains targeted by PROCESS and INVEST, yet they carry most unpaid domestic and care work, face persistent gaps in land ownership and are underrepresented in cooperative governance. Men hold primary authority over farm investment and occupy formal leadership positions. Without deliberate design, project benefits risk flowing primarily to men, women risk increased workloads without commensurate gains and the most marginalized groups, including Indigenous women, female-headed households and elderly women farmers, risk exclusion. Indigenous communities are present across several project sites, including the Talaandig in Talakag (Bukidnon) and Ata communities in Paquibato (Davao City), as well as Indigenous members in cooperatives in Midsayap (North Cotabato), with their own governance structures and norms that shape how women engage with farming decisions and services. Practical barriers such as household responsibilities, transport costs, childcare and lack of timely information directly affect women's ability to participate in the LEAD and INVEST processes.

1.2 Objectives of this assessment

This Gender Assessment was conducted during formulation in support of the ADAPT Mindanao full proposal, carried out in parallel with the Climate Risk and Vulnerability Assessment (CRVA) through a joint field mission between January and March 2026 and informed by the Environmental and Social Impact Assessment (ESIA) of April 2026. It establishes a baseline of gender-differentiated roles, access to resources and decision-making in the value chains; identifies the structural barriers and gender-related risks associated with project activities; translates these into design recommendations across the three components; and provides a project-specific Gender Action Plan aligned with Adaptation Fund and UNIDO requirements. The assessment and GAP are presented as an annex to the full proposal and are a mandatory requirement for compliance with the AF Gender Policy and Environmental and Social Policy. Both are living documents: the baseline will be validated at inception and the analysis revisited at mid-term.

1.3 Alignment with AF and UNIDO gender policies

The Adaptation Fund Gender Policy (updated March 2021)¹ establishes gender equality and women's empowerment as a fundamental dimension of the Fund's mandate, and is explicit that projects without articulated gender considerations shall not receive Fund resources. It operates through a dual mandate: implementing entities must identify and mitigate gender-differentiated risks created or worsened by funded activities and must proactively address existing gender gaps and support women's agency. Gender equality forms Principle 5 of the

¹ Adaptation Fund, Updated Gender Policy and Gender Action Plan of the Adaptation Fund, approved March 2021. Available at: https://www.adaptation-fund.org/wp-content/uploads/2016/04/OPG-Annex-4_GP-and-GAP_approved-March2021pdf-1.pdf

Fund's Environmental and Social Policy, alongside related principles on access and equity, marginalized groups, human rights, core labor rights and Indigenous Peoples, all addressed together in the project's Environmental and Social Management Plan (ESMP). At full proposal stage the Gender Policy requires a gender assessment, a Gender Action Plan, gender-responsive consultations, sex-disaggregated indicators and a gender baseline, an ESIA and ESMP covering gender under Principle 5, and a gender-responsive grievance mechanism. ADAPT Mindanao meets each requirement: the assessment and GAP are presented in this annex, gender-responsive consultations were conducted during formulation, sex-disaggregated indicators and a baseline are built into the results framework, the ESIA and ESMP address gender under Principle 5, and a gender-responsive grievance mechanism is established under the ESMP.

As implementing entity, UNIDO applies its Policy on Gender Equality and the Empowerment of Women (2019)² and its Operational Strategy for Gender Equality 2024-2027³, contributing to SDG 5 and SDG 9 through an intersectional approach that recognizes how gender, age, ethnicity, economic status and disability compound one another. All UNIDO proposals undergo gender review and clearance before submission, and this annex provides the evidence base for that review. On the basis of the analysis and measures set out here, ADAPT Mindanao targets UNIDO Gender Marker 2, denoting gender equality as a significant objective of the project, while not constituting its principal objective. The project is aligned with the UNIDO Operational Strategy for Gender Equality and the Empowerment of Women 2024–2027 and will comply with UNIDO Administrative Instruction AI/2020/03 on equal representation of women, including panel parity requirements for all project-organized and co-organized events, consultations, validation workshops and knowledge-sharing activities.

2. METHODOLOGY

The assessment drew on three complementary methods: a desk review, stakeholder consultations and a direct beneficiary survey across Regions 10, 11 and 12, supported by the gender-responsive CRVA and ESIA conducted during the same formulation phase. The desk review, conducted before the field mission, established what was already known about the gender situation in the project areas and value chains and identified the gaps requiring field verification, organized through a gender source matrix covering baseline conditions, gender roles and access to resources, and participation in producer organizations. Stakeholder consultations were held with cooperatives, women's groups and civil society organizations across the sites. In total 159 people participated across the consultation sessions, 81 women and 78 men, with women-only focus groups held within each cooperative session. The Direct Beneficiary Survey (DBS) reached 1,143 respondents and provides the sex-disaggregated quantitative basis for the analysis. The consultation tools and survey instruments are presented in the Annex. The main limitations are the reliance on self-reported perceptions for some indicators and the variation in available disaggregated data across sites, which the project will address by validating the baseline at inception.

3. LEGAL, POLICY AND INSTITUTIONAL CONTEXT

3.1 International commitments

The Philippines ratified CEDAW in 1981, the first ASEAN country to do so, and is committed to SDG 5 on gender equality and SDG 13 on climate action. On climate and gender specifically, the Climate Change Act of 2009 (Republic Act 9729)⁴ mandates identification of the differential impacts of climate change on men, women and children, establishing gender-responsiveness as a legal requirement in climate planning, reinforced by Climate Change Commission Resolutions 2019-001⁵ and 2019-002⁶, which strengthen gender-based approaches and the generation of sex-disaggregated data in climate policy.

² UNIDO, Policy on Gender Equality and the Empowerment of Women (DGB/2019/16), September 2019.

https://intranet.unido.org/intranet/images/6/61/Policy_on_Gender_Equality_and_the_Empowerment_of_Women.pdf

³ UNIDO, Operational Strategy for Gender Equality and the Empowerment of Women, 2024–2027 (GC.20/7), November 2023.

https://intranet.unido.org/intranet/images/7/74/Strategy_on_Gender_Equality_and_the_Empowerment_of_Women.pdf

⁴ Republic Act 9729, Climate Change Act of 2009, Republic of the Philippines. Section 2 establishes gender-responsiveness as a principle of climate change policy

⁵ Climate Change Commission, Resolution 2019-001: Establishing the National Climate Risk Management Framework, 2019. Available at:

<https://climate.gov.ph/public/ckfinder/userfiles/files/Resolutions/Resolution%202019-001.pdf>

⁶ Climate Change Commission, Resolution 2019-002: Strengthening Gender-Based Approaches in Climate Change Policies, Plans and Programs, 2019.

Available at: <https://niccdies.climate.gov.ph/files/documents/3.%20Commission%20Resolution%20No.%202019-002.pdf>

3.2 National legal and policy framework

The Philippines has one of the most comprehensive gender equality legal frameworks in Southeast Asia. The Magna Carta of Women (Republic Act 9710, 2009)⁷ translates CEDAW into national law, mandates equal status for men and women in land titling and stewardship contracts and requires government agencies and local government units to adopt gender mainstreaming backed by a mandatory allocation of at least 5 percent of their budget for Gender and Development (GAD) programs⁸. This sits within a wider statutory framework relevant to the project, including the Women in Development and Nation Building Act (RA 7192), the Anti-Sexual Harassment Act (RA 7877), the Anti-Trafficking in Persons Act (RA 9208), the Anti-Violence Against Women and Their Children Act (RA 9262), the Expanded Maternity Leave Law (RA 11210) and the Safe Spaces Act (RA 11313), which together provide the legal basis for the project's GBV, sexual exploitation and abuse and sexual harassment safeguards. GAD planning follows the NEDA-PCW Harmonized Gender and Development Guidelines (3rd edition, 2016).

Land rights are particularly significant. Women agrarian reform beneficiaries are underrepresented in land titling, holding 18.6 percent of Emancipation Patents and 31.1 percent of Certificates of Land Ownership Award nationally⁹, which limits their access to support programs and credit that require proof of land ownership. A related gap exists in the Registry System for Basic Sectors in Agriculture (RSBSA), where women are typically registered alongside husbands rather than as independent farmers, so their contribution is undercounted and they may not appear as eligible beneficiaries. The Updated Gender Equality and Women's Empowerment Plan 2019-2025¹⁰ provides the national strategic framework, with outcomes on expanding economic opportunities for rural women, who remain among the most economically vulnerable groups in the country.

3.3 Institutional context in the project areas

The national GAD framework is delivered locally through GAD plans, budgets and focal points maintained by local government units. Consultations across Regions 10, 11 and 12 confirmed that the consulted LGUs have active GAD plans with agriculture components and municipal GAD focal persons in place, though gender data collection and gender-responsive planning at community level remain uneven. Mindanao hosts seven of the sixteen PCW-certified GAD Local Learning Hubs, the highest concentration in the country¹¹, with Davao City a particular strength as the first LGU to adopt a GAD code and establish a permanent gender office, relevant to the Malabog United Farmers Federation site in Paquibato¹². At community level, Rural Improvement Clubs are the main structure for reaching women in agriculture and a practical entry point for the project, while Municipal Agriculture Offices are the main link to government programs and manage the RSBSA locally, where the husband-registration practice noted in Section 3.2 keeps many women invisible as independent beneficiaries.

4. GENDER BASELINE: KEY STATISTICS

The three project regions together account for nearly half of national agriculture, forestry and fishing employment, yet women remain structurally undercounted in formal agricultural data, a pattern that recurs throughout this assessment. The figures below establish the gender baseline.

Table 1: Key gender baseline figures

Indicator	Figure	Source
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⁷ Republic Act 9710, *Magna Carta of Women*, Republic of the Philippines, 2009. Available at: <https://pcw.gov.ph/magna-carta-of-women/>

⁸ Section 23 of RA 9710 mandates equal status for women and men in the titling of land and issuance of stewardship contracts and patents. Section 36 establishes gender mainstreaming as an implementation strategy. The five percent minimum GAD budget allocation derives from Republic Act 7192 (*Women in Development and Nation Building Act*) and is operationalized through the implementing rules of RA 9710 and Philippine Commission on Women guidelines

⁹ Department of Agrarian Reform, 2024 data as reported in Philippine Statistics Authority, *Fact Sheet on Women and Men in the Philippines*, March 2025

¹⁰ Philippine Commission on Women, *Updated Gender Equality and Women's Empowerment Plan 2019–2025*. <https://library.pcw.gov.ph/updated-gender-equality-and-womens-empowerment-plan-2019-2025/>

¹¹ <https://pcw.gov.ph/gender-and-development-local-learning-hubs-in-mindanao/>

¹² KII, Davao City Agriculture Office, Paquibato district, March 2026.

<i>National population</i>	115.4 million (57.2m women, 58.2m men)	PSA, 2025 ¹³
<i>Project regions combined population</i>	~14.6 million; sex ratios above national average (104.5-105.8 vs 102.9 males per 100 females)	PSA, 2020 Census ¹⁴
<i>Women as share of formally employed agricultural workers (national)</i>	19.2%	PSA LFS, 2023 ¹⁵
<i>Women as share of registered agricultural operators (regional)</i>	12.5-16.4%	EU Gender Analysis of Mindanao, 2021
<i>Unpaid family workers, women vs men (national)</i>	11.6% vs 5.3%	PSA LFS, 2023 ¹⁶
<i>Labor force participation, women vs men (national)</i>	53.5% vs 75.8%	PSA LFS, 2023 ¹⁷
<i>Labor force participation, women vs men (regional)</i>	Davao: 33.6% vs 66.4% (2020); Region XII: 57.8% vs 80.0% (2023)	PSA RSSO XI 2021; PSA RSSO XII 2024 ¹⁸
<i>Female- vs male-headed household average income</i>	PHP 346,000 vs PHP 373,000	PSA FIES, 2023
<i>Daily farm wage, women vs men (Regions X and XII, 2019)</i>	PHP 277-278 vs PHP 281-302; PHP 206 vs PHP 384	PSA, 2019 ¹⁹
<i>Women's share of Emancipation Patents / CLOAs (national)</i>	18.6% / 31.1%	DAR, 2024 ²⁰
<i>Women as share of all Agrarian Reform Beneficiaries and EP/CLOA holders (Davao, 2020)</i>	27.0% vs 73.0% men (37,821 women vs 102,478 men)	PSA RSSO XI 2021
<i>Women as share of farmer beneficiaries within ARCs, and land received (Region XII, 2023)</i>	41.0% vs 59.0% men (663 women vs 955 men); women received 528.2 ha vs 928.3 ha for men	PSA RSSO XII 2024
<i>Land held mostly by men / jointly / mostly by women (DBS)</i>	67% / 25% / 6%	DBS ²¹
<i>Functional literacy, women vs men (regional)</i>	Region X: 73.3% vs 66.9%; Davao: 97.7% vs 95.8%. Basic literacy, Region XII: 92.38% vs 91.47%	PSA RSSO X 2026; PSA RSSO XI 2021; PSA RSSO XII 2024

Table 2: Municipal poverty incidence, project sites (2023)²²

Site	Poverty incidence
Talakag, Bukidnon	40.5%
Midsayap, North Cotabato	17.8%
Santo Tomas, Davao del Norte	16.0%
Compostela, Davao de Oro	15.6%
Paquibato, Davao City	Not separately available (Highly Urbanized City); consultations confirm conflict-affected upland area with higher poverty and weaker service

Three points carry through the rest of the assessment. First, women's substantial farm labor is largely unrecognized in the systems government programs use to target support, with women representing only 12.5 to 16.4 percent of registered operators in the project regions despite their central productive role. Second, the gender gap in land titling cascades into access to credit, insurance and support programs that require proof of ownership, a pattern the DBS confirms holds in the project areas and that the RSBSA husband-registration

¹³ PSA, Fact Sheet on Women and Men in the Philippines, March 2025

¹⁴ PSA, 2020 Census of Population and Housing

¹⁵ PSA, Labour Force Survey, 2023 annual estimates (preliminary). Fact Sheet on Women and Men in the Philippines, March 2025

¹⁶ PSA, Labour Force Survey, 2023 annual estimates (preliminary). Fact Sheet on Women and Men in the Philippines, March 2025

¹⁷ PSA, Labour Force Survey, 2023 annual estimates (preliminary). Fact Sheet on Women and Men in the Philippines, March 2025

¹⁸ PSA Regional Statistical Services Office XI, The 2021 Women and Men in Davao Region, October 2021 (2020 data); and PSA Regional Statistical Services Office XII, 2024 Women and Men in SOCCSKSARGEN Region, December 2024 (2023 data).

¹⁹ PSA, Labour and Wages for Farmers by Region, 2019.

²⁰ Department of Agrarian Reform, 2024 data, as reported in PSA, Fact Sheet on Women and Men in the Philippines, March 2025

²¹ ADAPT Mindanao Direct Beneficiary Survey

²² PSA, Official Poverty Statistics, 2023; Family Income and Expenditure Survey, 2023. As reported in PSA, Fact Sheet on Women and Men in the Philippines, March 2025.

practice (Section 3.2) reinforces. Third, the highest poverty incidence among the sites, Talakag at 40.5 percent, coincides with the site where Indigenous women face compounding disadvantages in land access, cultural restriction and distance from services, which directly shapes how the project targets and delivers. The education advantage women hold does not translate into formal economic participation, as women remain underrepresented among registered agricultural operators and in paid agricultural work.

5. GENDER IN THE FRUIT AND VEGETABLE VALUE CHAIN

5.1 Roles and decision-making

Across the five cooperatives consulted for this analysis, a consistent division of labor emerged. Men are primarily responsible for land preparation, irrigation, spraying and hauling, while women concentrate in planting, weeding, harvesting, post-harvest handling, processing, packing, record-keeping, input purchasing and selling. The pattern is specific to each site. In SIFARBCO women manage the packing house and handle most administrative and clerical work. In MAFFCO they are responsible for marketing and managing the household budget during harvest. In LOBACO they handle input purchasing, some harvesting, record-keeping and selling. In the Malabog women's group, participants estimated men carry out roughly 70 percent of farm work and women 30 percent, while at home the proportions reverse. This means women work across the productive and domestic domains simultaneously, a dual burden that intensifies during peak season: in SIFARBCO women in the packing house often continue late into the evening, and in TFAC women manage household chores, children's schooling and food preparation on farming days in addition to planting and harvesting.

The DBS confirms the pattern. Across all 1,143 respondents, 75 percent reported that farming work is performed mostly by men, 22 percent reported it shared equally and 3 percent mostly by women. The cross-tabulation by sex shows a notable perception gap: women were more likely than men to describe work as shared equally (28 vs 18 percent) and five times more likely to say women perform most of the work (7 vs 1.4 percent). This indicates women perceive their own contribution as more substantial than men report it to be, consistent with the range and intensity of women's roles described during consultations.

The DBS also suggests near-universal participation in household decisions, with 99 percent of respondents reporting participation in crop decisions and 98 percent in decisions on how income is used, and almost no difference by sex. These figures should be read against the consultations, which reveal that participating in a discussion and holding decision-making authority are not the same thing. Across the cooperatives, authority tends to divide by domain: men typically lead on farm investment while women manage household finances and the loan process. In MAFFCO, women said farming decisions rest with the husband while women have full control over household finance. In Malabog, responses were mixed: five of eleven women said decision-making is equal, four said the husband decides, one said herself and one said it alternates. On larger investments such as equipment, irrigation or loans, women across most sites indicated that men lead on equipment and irrigation while women handle the loan process. Income control follows the same pattern: women receive income after sale and manage the household budget, while larger sums are more often directed by men, with one Malabog group describing the division as money for the house, school and children managed by women and money for agriculture managed by the husband. High survey scores on decision-making participation should therefore not be taken as evidence that women hold equal influence over the farm-level investment, technology and market decisions the project will affect. This gap between reported participation and actual authority is well documented in the gender and agriculture literature and is consistent with what the consultations found.

5.2 Access to resources and services

The land ownership gap established in Section 4 functions in daily practice through registration. In Malabog women described land as communal in household terms but acknowledged titles are usually in the husband's name and that access to government programs depends on whose name is registered; women who lose a spouse face this most acutely. In TFAC the male typically represents the household for registration, including for programs where only one member can be listed. Beyond land, water and irrigation are concerns at the more remote upland sites: Malabog women noted inadequate irrigation in higher areas, and TFAC reported no access to irrigation or post-harvest facilities. In rain-fed conditions women often manage water allocation across household and productive use, so infrastructure gaps fall disproportionately on them.

On training, DBS results are more positive than expected, with 83 percent of men and 84 percent of women reporting attendance. Where post-harvest facilities exist, working conditions warrant attention: in SIFARBCO women in the packing house regularly work late into the evening during peak season, and concerns raised in CMPC about seating and ergonomic equipment reflect the physical demands of precision processing women carry out for extended periods. The variation across sites in the availability, quality and gendered accessibility of post-harvest infrastructure is directly relevant to the PROCESS component.

5.3 Agency, participation and leadership

Women bring specific knowledge, practical capacity and organizational skills to the farming system that are rarely reflected in formal data. Several civil society organizations made this observation directly: RMA Foundation noted that women are more active and willing to learn during training and engage more critically with the content, while UNORKA described women as more meticulous and as taking on the majority of administrative, planning and coordinating work within the organizations. At cooperative level women described their contributions concretely, from being more open to new approaches in Malabog to running small retail businesses alongside their cooperative roles in SIFARBCO. Women's knowledge spans seed selection, soil management, post-harvest processing and household financial management, all relevant to the domains the project intends to strengthen.

Men's roles carry their own constraints relevant to design. Across multiple cooperatives, women commonly manage loan applications and registration paperwork, an administrative role they have developed while men concentrate on field operations: in TFAC women handle loan applications and in SIFARBCO women follow up on loan releases. This means the person formally registered as borrower or landowner is frequently not the person managing the practical steps, which is directly relevant to how the project designs financial literacy and business planning support under INVEST and points to an existing capability among women it can build on. Under climate stress and crop failure, women across several sites described providing emotional support and stability to the household, and men's responses to income pressure differ across cooperatives, pointing to gender-differentiated household dynamics relevant to the project's adaptation approach. Husbands' attitudes to women's participation vary, from encouragement through indifference to restriction, with spousal jealousy mentioned in TFAC alongside distance and childcare as barriers, though Don Bosco's experience suggests that deliberate gender-integrated programming can shift these dynamics over time.

Women's participation in cooperative life is high, and consultations consistently indicated that women are among the more active and vocal participants in meetings, speaking even when the chair is male. This presence does not depend on women being the numerical majority. Cooperative membership records compiled for the ESIA show that as of April 2026 women made up 58 percent of members in TFAC, 37 percent in both CMPC and LOBACO and 24 percent in SIFARBCO; with the exception of TFAC, women are therefore a minority of formal members yet remain among the most active participants. The comparatively low share at SIFARBCO is relevant to targeting and outreach there given the central role women play in the packing house. The DBS shows 79 percent of respondents regularly attend cooperative or community meetings. A consistent divide emerged between participation and leadership: women tend to hold administrative and officer positions while men dominate boards of directors and technical roles. In CMPC two of five board members are women; in LOBACO women dominate officer positions but men dominate the general membership; in TFAC officers are mostly women but the board has a male majority. The most commonly cited barrier to women's participation was household responsibilities (86 percent), followed by farm responsibilities (36 percent), distance or transport (29 percent), lack of time (24 percent) and lack of information (17 percent). This pattern of active participation without corresponding representation in governance is directly relevant to the leadership and coordination mechanisms the project will establish.

6. INTERSECTIONALITY: KEY VULNERABLE SUB-GROUPS

The experience of women in the value chain is not uniform. Certain groups face compounding disadvantages that make them more vulnerable to exclusion and more exposed to the climate risks described in Section 7. Two emerged from the consultations and survey as requiring specific attention: Indigenous women and women at both ends of the age spectrum. The project also operates under national disability and anti-age-discrimination frameworks, and inclusion of persons with disabilities is addressed through the project's safeguards

Table 1. Membership composition of the four project cooperatives.

Cooperative	Site	Women members	Seniors	Youth (15-30)	IP status
TFAC	Talakag, Bukidnon	58%	9%	24%	Talaandig (entirely Indigenous; within ancestral domain)
CMPC	Midsayap, Cotabato	37%	40%	16%	Not recorded
LOBACO	Compostela, Davao de Oro	37%	13%	10%	Not recorded
SIFARBCO	Sto. Tomas, Davao del Norte	24%	89%	None (youngest member 51)	Not recorded

Figures are drawn from cooperative membership records compiled for the ESIA (April 2026). Percentages indicate each group's share of total membership. Youth are defined as those aged 15 to 30. "Not recorded" indicates the data was not captured for that cooperative.

6.1 Indigenous women

The project engages directly with Indigenous communities at more than one site. The clearest cases are the Talaandig in Talakag, Bukidnon, where all members of TFAC belong to the Talaandig-Kalatunganon tribes and the cooperative's site lies within a Certificate of Ancestral Domain Title (CADT) area, and the Ata in Paquibato, Davao City, where the entire Barangay Malabog, location of a Malabog United Farmers Federation site, falls within the Ata Tribes' CADT. Indigenous members are also present in CMPC in Midsayap, and ancestral domains exist near the Santo Tomas sites, so Indigenous engagement is a cross-site consideration rather than one confined to a single cooperative.

Of all five sites, Talakag has the highest poverty incidence (40.5 percent), reported no access to irrigation or post-harvest facilities, and is where women described needing daily farm-labor income to survive and where traditional norms most visibly shape women's participation. TFAC women described men holding stronger decision-making authority over farming than at other sites: men budget farming money and usually decide crops, though they consult women, and the male typically represents the household for government program registration. A culturally specific practice reported in Talakag is the traditional observance that women do not visit the farm during menstruation, which the project should take into account in scheduling and designing field activities in a culturally appropriate way.

At the same time, TFAC women showed clear agency: they dominate officer positions, usually attend training because men cannot afford to miss paid labor, and handle loan applications, which men tend to avoid. Women also made up the majority of participants at the ESIA stakeholder consultation. The Indigenous Peoples Rights Act requires Free, Prior and Informed Consent for activities affecting Indigenous communities, and FPIC must be secured from the Ata Tribes for activities within the Paquibato ancestral domain and reflected in engagement with the Talaandig in Talakag. Where triggered, an Indigenous Peoples Plan carries gender-responsive and FPIC requirements. The distinct climate and structural disadvantages facing Indigenous women, the Talaandig in Talakag and the Ata in Paquibato, are examined in Section 7.4. During coordination with the National Commission on Indigenous Peoples, the project was encouraged to explore complementarity with the Indigenous Women and Girls Leadership and Empowerment in Ancestral Domains (I-LEAD) initiative, which works in ancestral domains in the project regions, including the Ata domain in Paquibato.

6.2 Age and generational dynamics

The DBS reveals an aging farming population: 30 percent of respondents were over 60 and only 7 percent under 30. Membership records confirm this and show sharp variation by site, with seniors at 89 percent of SIFARBCO members (no members under 30, youngest aged 51) compared with 40 percent in CMPC, 13 percent in LOBACO and 9 percent in TFAC. Where the project works through an aging membership such as SIFARBCO, the design must account for a cooperative that is not reproducing itself through younger members, with implications for the long-term viability of the post-harvest work women carry out there. The likelihood of being widowed increases with age, and with it the risk of losing access to land, credit and support programs registered in a husband's name; women in this situation effectively become female-headed households without the documentation needed to access programs their household previously relied on. The practical implication most frequently raised for

older women was lower digital literacy, relevant to how the project designs learning and communication, particularly digital content.

Youth are a small and unevenly distributed share of membership: 24 percent at TFAC, 16 percent at CMPC, 10 percent at LOBACO and none at SIFARBCO. Gender composition varies, with TFAC's youth members close to balanced (seven young women, six young men) while at LOBACO young men accounted for eleven of twelve. ESIA consultations described youth as largely uninvolved in value-chain farming, often because younger people are encouraged to continue schooling. Where young people are present, young women can be substantially outnumbered, which bears on how youth-oriented activities are designed so young women are not further marginalized. Young women face distinct constraints, including childcare, school schedules and limited land access in their own name, different from those facing older women and requiring different outreach. The project's target population is therefore not homogeneous: it spans underrepresented younger people, women in their thirties and forties who are the most active cooperative members and primary handlers of post-harvest and financial tasks, and women over sixty who hold accumulated knowledge but face growing economic insecurity. The risks specific to older and young women are carried into Section 8, with corresponding responses reflected in the Gender Action Plan.

7. GENDER-DIFFERENTIATED CLIMATE VULNERABILITY AND COPING

7.1 Gendered impacts and coping

The CRVA identifies five primary hazards across the project sites, tropical cyclones, flooding, landslides, soil erosion and drought, with severity varying by site (Sto. Tomas and Midsayap assessed as high vulnerability with low adaptive capacity, Talakag and Compostela moderate, Paquibato low overall risk despite high exposure). The DBS confirms these are already severely disrupting farming households: half of respondents reported total destruction of farms and homes from climate-related disasters, 41 percent partial destruction and 79 percent said disasters had negatively affected their livelihood and income.

These impacts fall differently on women and men, reflecting the division of labor described in Section 5.1. For women, whose responsibilities span the farm and household simultaneously, climate events compound an existing dual burden. The additional work of cleaning, rescue, repair and recovery after floods or typhoons, cited by 65 percent of DBS respondents, falls substantially on women, who continue to manage food preparation, childcare and household maintenance through the disruption. Where post-harvest facilities are absent and processing takes place at home, flooding also destroys the domestic workspace where women sort, dry and pack produce. Women's coping operates through two main channels: informal income diversification, such as the small retail businesses SIFARBCO women run as a buffer during production downturns, and absorption of additional domestic and care work, with the DBS recording that 38 percent of respondents reported climate events disrupt children's schooling and 38 percent reported negative health impacts on family members, in both cases drawing primarily on women's time.

For men, the primary stress is concentrated in the productive domain. As the principal operators of land preparation, irrigation and heavy tasks, men face the direct destruction of farm infrastructure and crop systems, and the expectation that men are primary livelihood providers means crop failure carries social weight beyond income loss. The CRVA identifies high-interest loans from traders as a major social vulnerability, creating a debt cycle that makes recovery especially difficult. Men, as the formal registered borrowers and farm investment decision-makers, carry the formal liability within this cycle, so a climate shock that reduces yields is not only an income event but an obligation-default event for many households. Drought conditions have site-specific gendered implications: in Sto. Tomas, where 84 percent of the population is exposed to El Niño-related water stress, the collapse of banana production left cooperatives in financial crisis; in Talakag, where poverty incidence is 40.5 percent and both irrigation and post-harvest facilities are absent, TFAC women described needing daily farm-labor income simply to survive, with no buffer to absorb shocks. Extreme temperature variation in Miarayon causes crop damage in tomatoes, peppers and cucumbers, and since women are the primary actors in harvesting, sorting and packing, the burden of managing damaged or lower-quality produce under time pressure falls disproportionately on them.

Taken together, the evidence suggests climate shocks push households toward a pattern where women absorb additional labor and care burdens while men carry increased formal financial liability. Both costs are real and neither is fully visible in the other's experience of the same event. Consultations offer some evidence that men experience climate stress differently in its emotional dimension, with women in MAFFCO describing their role as providing stability and emotional support when men face crop failure; these are site-specific observations that cannot be generalized across the project areas, though they are consistent with wider literature on the gendered psychology of agricultural stress.

7.2 Health, pesticides and climate pressure

Climate change interacts with health in the project areas through two documented pathways. The first is water-borne disease: 40 percent of DBS respondents identified this as a secondary hazard following heavy rain and typhoons, and because women manage household water, food preparation and childcare, they are both more exposed to contaminated sources and more responsible for managing the health consequences. The second is occupational exposure to agrochemicals. The CRVA identifies a maladaptation pattern in Sto. Tomas, where farmers increased chemical use against Fusarium wilt after Typhoon Bopha, producing output that exceeded maximum residue limits for export, with lost income and continued chemical dependency, a combined market-access and occupational-health risk. Women's central role in harvesting, sorting and packing exposes them to residues at the post-harvest stage even where field application is done mainly by men, and exposure extends to children present in farm and processing environments. Clinical health outcomes were not documented at formulation and should be addressed at inception, particularly in Sto. Tomas. This is carried into the risk analysis in Section 8.

7.3 Compounding vulnerabilities: Indigenous women and climate exposure

Indigenous women in upland farming communities represent the most acute convergence of climate risk and structural disadvantage in the project areas, concentrated at two sites: Miarayon in Talakag, where the Talaandig farm through TFAC, and Malabog in Paquibato, where the Ata community is documented as facing increasing disaster impacts. In Miarayon the CRVA flags very severe soil loss exceeding 300 tonnes per hectare per year, driven by intensive vegetable cultivation on steep slopes with short crop cycles, meaning the productive foundation Talaandig households depend on is itself being degraded by practices that climate pressure partly necessitates. Combined with 40.5 percent poverty incidence and no access to irrigation or post-harvest facilities, drought affects both crop production and household water management, both of which draw heavily on women's labor, while the traditional restriction on women visiting the farm during menstruation limits their ability to respond to time-sensitive climate events. In Paquibato, despite the district's high overall adaptive-capacity rating from its Davao City location, the Ata in the mountainous interior do not benefit equally, facing documented landslides, flooding and cold hotspots affecting cacao and vegetables, with the area's conflict-affected status adding a governance vulnerability. What distinguishes Indigenous women from other women in the project areas is the combination of high physical exposure, absent infrastructure, cultural restrictions on adaptive flexibility and a registration regime that does not recognize their practical claims, leaving them the smallest margin to absorb shocks and the fewest institutional pathways to support.

8. GENDER RISKS AND OPPORTUNITIES

The Adaptation Fund Gender Policy asks two things of this project. The first is to avoid causing harm: to identify the ways in which project activities might worsen existing inequalities or create new ones, and to design against those risks. The second is more ambitious: to use the project as an opportunity to actively address the gender gaps that the analysis has documented. This section does both, mapping the key risks and opportunities to the project's three components. The findings in Chapters 5, 6 and 7 provide the basis for everything that follows. None of the risks or opportunities identified here are speculative. They reflect what women and men in the project areas described during consultations, what the direct beneficiary survey measured and what the CRVA found about how climate stress falls differently on different people.

8.1 Risks (do no harm)

Gender risk	Group most affected	Component	Risk level	Why it matters
Training-adoption gap. CRA knowledge and skills delivered through training may not translate into farm-level practice if the person who attends the training is not the person who controls production decisions. Across the project sites, women are often active training participants while men hold stronger authority over crop choice, farm investment and technology adoption.	Farming households; women who attend training	LEAD, INVEST	High	The project could appear inclusive at the training level while still failing to change farm practice. This would weaken both gender outcomes and adaptation outcomes.
Workload burden. Project activities that increase women's participation in training, meetings and cooperative processes may add to women's time demands if their existing farm and household responsibilities are not considered. During peak season, many women are already working across both productive and domestic roles	Women farmers, particularly those with young children or care responsibilities	LEAD, PROCESS	High	Higher participation numbers would not necessarily mean better outcomes for women if participation comes at the cost of additional unpaid time, stress or lost income. Young women with childcare and school-age responsibilities face this most acutely.
Participation without influence. Women may be present and vocal in project activities without having real influence over investment decisions, infrastructure design or cooperative rules. This is especially relevant where women are active as officers, administrative staff or members but are less represented in formal board positions	Women cooperative members and officers	LEAD, PROCESS	High	The project could mistake attendance for empowerment. This would leave existing decision-making patterns largely unchanged.
Benefit capture. Shared infrastructure, equipment and productive assets introduced through the project may be controlled by existing cooperative leadership structures. Since cooperative boards are predominantly male in several project sites, women's needs may not be reflected in how facilities and services are organized.	Women cooperative members and post-harvest workers	PROCESS	High	Women may use the facilities most intensively but still have limited authority over access rules, schedules, equipment choices or benefit distribution.
Governance replication in ADAPT Centres. ADAPT Centre governance could reproduce existing cooperative board dynamics if it is not designed carefully. This would risk concentrating authority over new project-supported assets in the hands of the same groups that already hold formal power.	Women cooperative members and post-harvest workers	PROCESS	High	New infrastructure could reinforce old governance patterns instead of creating more inclusive arrangements around shared services
Financial reach gap. Financial literacy and business planning activities may reach women who handle paperwork, records and loan processes without reaching the men who often make farm investment decisions. In many households, women manage budgets while men retain authority over production choices	Women officers; male cooperative board members; farming households	INVEST	Medium	The project could strengthen women's financial knowledge without changing the investment decisions that determine whether climate-resilient practices are adopted.
Debt cycle reinforcement. Financial support that does not address dependence on high-interest trader loans may leave a	Farming households, particularly men as	INVEST	Medium to High	If the project improves finance readiness without engaging with existing debt

major source of climate vulnerability intact. Men often carry the formal borrowing role, while repayment pressure affects the wider household.	formal borrowers and farm decision-makers			relationships, households may remain locked into the same vulnerability cycle.
Indigenous women's exclusion. Programme design that does not account for FPIC requirements, Indigenous governance systems, cultural restrictions on women's mobility and infrastructure gaps may fail to reach Indigenous women effectively. This is especially important in Talakag, where climate vulnerability and structural exclusion overlap.	Talaandig women in TFAC; Ata women in Paquibato; Indigenous members in Midsayap	LEAD, PROCESS	High	Activities that are technically available may still be inaccessible in practice if they do not fit local protocols, mobility patterns or infrastructure realities.
Female-headed household exclusion. Eligibility criteria linked to land titles, cooperative membership or RSBSA registration in a husband's name may exclude widowed and separated women. These women may be economically exposed but less visible in formal records	Widowed and separated women farmers	LEAD, INVEST	Medium	Some of the women most in need of support could be missed if targeting depends too heavily on formal registration status. This risk falls most heavily on older women, who are more likely to be widowed and to have lost the registration their household relied on.
Pesticide and occupational health risk. Climate-driven pest pressure may increase chemical use, particularly in sites where farmers already respond to pest and disease stress through higher input use. This can create health risks for farm workers and for women involved in post-harvest handling.	Women post-harvest workers; farm laborers in Sto. Tomas	INVEST, PROCESS	Medium	Adaptation responses that rely too heavily on chemical inputs can create new health risks and may also affect market access if residue concerns arise
Gender-based violence, sexual exploitation and abuse, sexual harassment, and backlash. Construction and operation of shared facilities, the presence of workers from outside the community, and shifts in women's visibility, income or authority can heighten the risk of GBV, SEA and SH, and in some households can provoke backlash against women's increased participation.	Women workers and community members; women whose participation or income increases	PROCESS, INVEST, cross-cutting	Medium	GBV, SEA and SH can result in physical and psychological harm to women workers and community members, and the risk of it can reduce women's uptake of project activities. Where women's income, visibility or authority increases, household-level backlash can offset these gains and weaken the project's gender objectives. These risks also carry safeguarding and reputational implications for beneficiaries and the project. Prevention and response measures sit in the ESMP, to which this GAP cross-refers rather than duplicating.
Loss of income from labor-saving technology. Post-harvest equipment and processing improvements that reduce the manual work women currently perform may also reduce or displace the income-generating work some women rely on, if the efficiency gain is not matched by women's access to the new roles or to the income the upgraded facilities generate.	Women post-harvest and processing workers	PROCESS	Medium	A reduction in women's workload is a benefit only if it does not also remove an income stream. Where ADAPT Centre technology changes how post-harvest work is done, the design should ensure women retain access to the resulting roles and to the income the facilities generate.

8.2 Opportunities (do good)

The project also has opportunities to improve gender equality while strengthening adaptation outcomes. These opportunities build on roles and capacities that already exist in the project areas. They are not separate from project effectiveness. In many cases, they are central to whether the project's climate-resilient agriculture, shared-service infrastructure and finance activities will work in practice.

Gender opportunity	Target group	Component	Why it matters
Women's existing organizational capacity. Women are already active in cooperatives as members, officers, administrators and organizers. They often hold practical knowledge of records, coordination, budgeting and member communication.	Women cooperative members and officers	LEAD	This gives the project a strong base for outreach and feedback, provided women's contributions are recognized and not treated as unlimited unpaid support.
Deliberate male engagement in CRA adoption. Men often have stronger authority over crop choice, farm investment and technology adoption. Reaching them is therefore important for translating CRA knowledge into practice.	Male cooperative members and farm decision-makers	LEAD, INVEST	Gender-responsive design should not only mean involving women. It also means engaging men where they hold decision-making authority that affects adaptation outcomes.
Post-harvest infrastructure shaped by women's working conditions. Women are heavily involved in post-harvest handling, packing, processing and related cooperative work. Their experience gives them direct knowledge of what makes facilities usable, safe and efficient.	Women in post-harvest roles	PROCESS	ADAPT Centres can improve women's working conditions if their needs are considered from the beginning, rather than added after infrastructure choices have already been made.
More inclusive governance around shared assets. ADAPT Centres create a new governance space around equipment, facilities and services. This can help shift the gap between women's active participation and their weaker formal authority.	Women and men in cooperative governance	PROCESS, LEAD	The project can avoid reproducing existing cooperative hierarchies by treating shared-service governance as a core inclusion issue.
Financial literacy that reflects household roles. Women often manage budgets, records and loan processes while men often make farm investment decisions. Both roles matter for climate-risk-informed financial planning.	Women officers, male cooperative board members and farming households	INVEST	Finance activities will be more effective if they reflect how decisions are actually made within households and cooperatives.
Reducing dependence on trader loans. High-interest trader loans are a structural vulnerability for farming households. Reducing this dependence would support both climate resilience and household financial stability.	Farming households; men as primary farm investment decision-makers	INVEST	This is one of the strongest links between gender, finance and adaptation. It affects men as borrowers, women as household budget managers and families as a whole.
Indigenous women's knowledge integration. Indigenous women hold agricultural and community knowledge that can improve the relevance of CRA content and local adaptation planning. This is especially important in sites where cultural protocols and infrastructure barriers shape access.	Talaandig women in TFAC	LEAD, PROCESS	Inclusion is not only about reaching Indigenous women as beneficiaries. It is also about recognizing the knowledge they bring to adaptation design.
Women's role in marketing and sales. In several sites, women already play important roles in sales, market negotiation and decisions about when produce should be sold. These roles become especially important during income shortfalls	Women in marketing and sales roles	INVEST	Market access activities can strengthen women's economic position by building on responsibilities they already carry in practice.
More accessible safeguards and grievance channels. Women, Indigenous women and female-headed households may face different barriers to raising complaints or reporting exclusion. Trusted and accessible channels can help detect problems early.	Women cooperative members; Indigenous women; female-headed households	Cross-cutting	A gender-responsive grievance system is important because some risks will only become visible during implementation.

Taken together, these risks and opportunities point to a clear conclusion. Gender responsiveness in ADAPT Mindanao cannot be reduced to counting how many women attend activities. The project also needs to pay attention to who makes decisions, who controls assets, who carries additional work and who is able to benefit from climate-resilient investments.

The project has a strong foundation to build on. Women are already active in cooperative administration, post-harvest work, budgeting and marketing. Men remain central to many farm-level and investment decisions. Indigenous women, female-headed households and women with heavy care responsibilities face additional barriers that require specific attention. The next chapter translates these findings into project design recommendations.

Several of these risks will only become visible once implementation is under way, which makes the accessibility of the grievance mechanism a gender issue in its own right. The ESIA establishes a two-tier grievance system, a project-level mechanism managed through the cooperatives and PMU and a separate UNIDO grievance channel. For that system to work for the women this assessment identifies as most exposed, its design has to account for the same barriers that limit women's participation elsewhere in the project. Women in the project areas often receive information indirectly, through male household members, and the most marginalized women are the least likely to use a channel that depends on written submission, travel to a cooperative office, or familiarity with digital platforms. This applies in particular to Indigenous women in Talakag, to widowed and separated women, and to older women with lower digital literacy. A gender-responsive grievance mechanism therefore needs accessible entry points that do not rely on those conditions. It also needs to allow women to raise concerns confidentially and without going through cooperative leadership where the complaint concerns that leadership, and to handle GBV, SEA and SH reports in a way that protects the person reporting. These features are carried into the implementation arrangements of the Gender Action Plan and are aligned with the prevention and response measures in the ESMP.

9. RECOMMENDATIONS FOR PROJECT DESIGN

The assessment documents a consistent pattern: women are highly active in cooperative life, post-harvest work, budgeting and marketing, but this participation does not translate equally into decision-making authority or access to benefits, while men remain central to farm investment and technology decisions even when less present in training. Indigenous women, female-headed households and youth face additional barriers, with the limited youth evidence base addressed through inception-stage actions in the GAP. Across all components the project applies gender-responsive management and monitoring: sex-disaggregated data collection, gender follow-up assigned to the national Environmental, Gender and Social Safeguards Experts, review through the Gender, Inclusion and Social Safeguards Advisory Committee (GISAC), a grievance mechanism accessible to women, Indigenous women and female-headed households, and a commitment to women as at least 40 percent of beneficiaries in core activities. The project will track not only women's participation, but also women's representation and effective voice in decision-making bodies related to ADAPT Centre governance, CRA Business Plan validation, service access arrangements and local adaptation planning. The component-level recommendations below are not the Gender Action Plan; detailed actions, indicators, targets and responsibilities are in Chapter 10.

9.1 LEAD. The central challenge is the gap between who participates in learning and who holds authority over the decisions those activities aim to influence. CRA capacity-building should reach both women participants and male farm decision-makers through channels suited to each, addressing the practical barriers women raised (timing, advance notice, transport, school schedules, peak-season workload) and using formats for men that connect to farm decision-making. Indigenous women in Talakag require engagement that accounts for cultural protocols, mobility, language and infrastructure gaps, with FPIC-related engagement aligned to the ESIA, ESMP and the Indigenous Peoples Plan required for activities within ancestral domains.

9.2 PROCESS. ADAPT Centre design should reflect how women actually work in post-harvest spaces, with layout, equipment, seating, lighting, sanitation and safety informed by women post-harvest workers. Governance matters equally: if ADAPT Centre governance reproduces existing cooperative board dynamics, facilities used heavily by women may still be managed by those with less direct experience of the work. The project therefore treats shared-service governance as a gender issue, with GISAC reviewing equitable access, benefit-sharing and inclusion in the design and operation of the Centres under Output 2.2.

9.3 INVEST. Financial literacy and business planning should reflect how household financial decisions are actually made, reaching both women (building on budgeting and record-keeping roles) and men (linking climate risk to farm investment), rather than assuming one participant represents all decisions. The trader-loan cycle is an important structural vulnerability the project should recognize in finance-readiness support, without setting unrealistic targets for reducing loan dependency before the financial product is defined. The investments under the ADAPT to Farm grant mechanism (Output 3.1) are unidentified at design and pass through ESMF screening before approval, including gender criteria on equitable benefit distribution to women and women's inclusion in planning, consultation, training and decision-making; GISAC endorses each CRA Business Plan for gender responsiveness and equitable benefit-sharing before it proceeds to a grant. Female-headed households should be considered in targeting and eligibility reviews, since women farming after the death, separation or departure of a spouse may lack land titles, formal membership or clear registration, while women's existing roles in market negotiation and sales provide an entry point for market-information, collective-marketing and buyer-linkage activities.

PART II: GENDER ACTION PLAN (GAP)

10. GENDER ACTION PLAN

This GAP translates the recommendations of the gender assessment in Chapter 9 into commitments organized by the project's components, outcomes and outputs, following the Adaptation Fund Gender Action Plan structure. It focuses on actions within the project's control or direct influence and attaches gender actions to the activities where the assessment gives a real, evidence-based action. All six outputs carry at least one gender action. The commitments are delivered through the relevant component budgets, the PMU and the project's safeguards, monitoring and consultation arrangements. The results framework targets women as 40 percent of total direct beneficiaries, which is the reference point for the participation targets in the matrix below.

COMPONENT 1: LEAD (Local Empowerment for Adaptation Decision Making)					
Outcome 1 (Locally Led Adaptation System): Strengthened capacity, coordination and enabling environment for locally led adaptation in Mindanao's fruits and vegetables value chains, enabling nationally identified adaptation priorities to be cascaded into locally implemented action and reflected in longer-term regional planning and investment.					
Gender outcome statement: Women in targeted FVVC actors and local leadership take part in the LEAD process and are reflected in the adaptation priorities and packages that result, not only as participants but in the decisions that shape them.					
Output 1.1 [LEARN & EXPERIENCE] Local leadership, targeted FVVC actors, and existing project-site governance arrangements enabled through the LEAD to ADAPT Programme to assess climate risks, define adaptation priorities, and steer the preparation and operationalization of LCCAP-linked FVVC adaptation packages.					
Activities	Indicators	Targets (baseline to target)	Timeline	Responsibilities	Costs
A1.1.1.1 Design, localize and mobilize participants for the LEAD to ADAPT Programme, addressing the participation barriers the assessment found for women (timing, advance notice, transport, school schedules, peak-season workload) and including arrangements such as scheduling and childcare or transport support where feasible at site level.	Number of targeted local leadership and FVVC actors completing the full LEAD to ADAPT Learning Programme cycle (RF OP1.1-I.1), disaggregated by sex, with LEAD design and participant mobilization incorporating the measures to address women's participation barriers.	None, to be established at inception, to: LEAD design includes the participation measures, and women are mobilized in line with the 40 percent beneficiary target.	Year 1 (Q2-Q4), then before each cycle	National Environmental, Gender and Social Safeguards Experts; MinDA; training providers.	Included in activity costs (Output 1.1 total: USD 1,210,000)
A1.1.1.2 Deliver the LEAD to ADAPT learning cycle so that it reaches both women and the men who make farm decisions, and so that the curriculum's gender-responsive and inclusive adaptation governance module is delivered as a core part of the learning, not	Number of targeted local leadership and FVVC actors completing the full LEAD to ADAPT Learning Programme cycle (RF OP1.1-I.1), disaggregated by sex; gender-responsive adaptation governance module delivered in all learning rounds, tagged	No sex-disaggregated LEAD data before the project, to: participation consistent with the 40 percent women beneficiary target, and the gender governance module delivered in all rounds.	Year 1 Q4 to Year 2 Q4	PMU; training providers.	Included in activity costs (Output 1.1 total: USD 1,210,000)

an optional add-on. Track participation by sex.	with the gender knowledge area.				
A1.1.2.1 Convene the FVVC Technical Working Group and draft site-specific FVVC Adaptation Packages, with women represented in the working group and Indigenous women engaged at sites where this applies, accounting for cultural protocols, mobility and language.	Number of project sites with LCCAP-linked FVVC adaptation packages defined and endorsed through existing local governance and leadership arrangements (RF OP1.1-I.2), with women represented in the FVVC-TWG and Indigenous women's engagement reflected in the relevant package documentation.	Women under-represented in formal FVVC decision-making bodies (assessment finding), to: women represented in the FVVC-TWG toward the 40 to 60 percent parity range; Indigenous women engaged at relevant sites.	Year 1 Q4 to Year 3 Q2	PMU; Environmental, Gender and Social Safeguards Expert; GISAC for advice; relevant local authorities.	Included in activity costs (Output 1.1 total: USD 1,210,000)

Output 1.2: Mindanao FVVC Adaptation Action Plan for 2030–2050 developed, supported by regional and sectorial climate risk assessments, technology needs assessments, investment roadmaps, toolkits, sector-specific guidelines, and feasibility assessments for priority fruits and crops.

Activities	Indicators	Targets (baseline to target)	Timeline	Responsibilities	Costs
A1.2.1.4 Draft, validate and finalize the Mindanao FVVC Adaptation Action Plan so that its content reflects the gender-differentiated adaptation needs identified in this assessment, including the priorities of women and Indigenous women, and so that supporting assessments use sex-disaggregated data where available.	Number and type of core technical and decision-support products completed for the Mindanao FVVC Adaptation Action Plan (RF OP1.2-I.1) that reflect gender-differentiated adaptation needs and use sex-disaggregated data where available.	Regional planning instruments not yet developed at formulation, to: all core technical and decision-support products (toward the RF target of 7) reflect gender-differentiated adaptation needs and use sex-disaggregated data where available, with the Adaptation Action Plan validated with attention to women's and Indigenous women's priorities	Year 3 Q4 to Year 5	PMU; Environmental, Gender and Social Safeguards Expert; GISAC for advice.	Included in activity costs (Output 1.2 total: USD 1,045,000)

COMPONENT 2: PROCESS (Post-harvest Climate Resilient Centres for Shared Services)

Outcome 2 (Climate-Resilient Shared Service System): Adaptive capacity and livelihood resilience of communities, Small and Micro Cooperatives, Farmers Associations and Smallholder Farmers strengthened through access to and use of climate-resilient shared service infrastructure, operational know-how, and value-addition and market-support functions in fruits and vegetables value chains.

Gender outcome statement: Women use and help govern the ADAPT Centres, the facilities reflect the conditions of the post-harvest work women do and women's existing roles in marketing and sales are built on rather than bypassed.

Output 2.1 [LEARN & EXPERIENCE] Crop-specific ADAPT to Market Programme delivered, strengthening the readiness of smallholder farmers, cooperatives, and targeted fruits and vegetables value-chain (FVVC) actors to use ADAPT Centres as climate-resilient shared service and market interface platforms for aggregation, post-harvest handling, value addition, and structured engagement with buyers and processors.

Activities	Indicators	Targets (baseline to target)	Timeline	Responsibilities	Costs
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A2.1.3.1 Deliver the ADAPT to Market learning and pre-commissioning service-readiness sessions so that they build on women's existing roles in marketing, sales and decisions on when and where produce is sold, and so that women and vulnerable groups can access ADAPT to Market learning and service-readiness support. Sessions will be designed to address the barriers identified in consultations, including household responsibilities, transport, information gaps and limited visibility in cooperative or registration records.	Number of targeted users, operators and centre-linked actors completing the full ADAPT to Market Learning Programme cycle (RF OP2.1-I.1), disaggregated by sex, Indigenous status, age, disability status and household headship where relevant; number and percentage of women, Indigenous women, youth, persons with disabilities and beneficiaries from female-headed households accessing ADAPT to Market learning and service-readiness support; sessions delivered as gender-responsive and tagged with the gender knowledge area where the gender focus is substantial.	No sex-disaggregated or vulnerability-disaggregated data before the project, to: participation consistent with the 40 percent women beneficiary target; women and vulnerable groups access ADAPT to Market learning and service-readiness support; sessions delivered as gender-responsive, with corrective outreach where women, Indigenous women, youth, persons with disabilities or beneficiaries from female-headed households are under-represented.	Year 3	PMU; Environmental, Gender and Social Safeguards Expert; MinDA; technical providers.	Included in activity costs (Output 2.1 total: USD 2,065,755)
A2.1.3.4 Conduct the buyer, processor, logistics and service-provider engagement series so that women and vulnerable groups can directly access market-linkage opportunities and participate in engagement and linkage events. Women should take part not only in preparing produce for sale, but also in the discussions where buyers and processors are engaged and terms are set, building on the marketing and sales roles women already hold.	Number of crop-specific ADAPT to Market activities delivered to support cooperative market access and value-chain linkages (RF OP2.1-I.2), with participation in buyer and processor engagement events disaggregated by sex, Indigenous status, age, disability status and household headship where relevant; number and percentage of women, Indigenous women, youth, persons with disabilities and beneficiaries from female-headed households directly accessing market-linkage opportunities and participating in buyer, processor, logistics and service-provider engagement events.	Women active in marketing and sales but often absent from buyer and processor negotiations; limited vulnerability-disaggregated data before the project, to: women and vulnerable groups directly access market-linkage opportunities and participate in the engagement series, consistent with the 40 percent women beneficiary target, with corrective outreach where women, Indigenous women, youth, persons with disabilities or beneficiaries from female-headed households are under-represented	Year 3 Q3 to Year 5	PMU; MinDA.	Included in activity costs (Output 2.1 total: USD 2,065,755)

Output 2.2 [SCALE] ADAPT Centres established, upgraded, and operationalized in targeted project sites as climate-resilient shared service platforms that expand and institutionalize access to aggregation, post-harvest handling, storage, pre-processing, value-addition, and other locally relevant adaptation support functions in fruits and vegetables value chains.

Activities	Indicators	Targets (baseline to target)	Timeline	Responsibilities	Costs
A2.2.1.1 Complete site, asset, service-demand and feasibility assessments for each ADAPT Centre, including women post-harvest workers in the assessment so that their input on layout, equipment, seating, lighting, sanitation and safety informs the design. Reflect occupational-health concerns relevant to women's post-harvest work and provide for sex-appropriate sanitation and welfare facilities consistent with the ESMP.	Number of ADAPT Centres established with site, asset and feasibility assessments completed (RF OP2.2-I.1) whose assessment records include women post-harvest workers and whose design requirements reflect their input and include sex-appropriate facilities.	No ADAPT Centre design consultations before the project, to: all 4 ADAPT Centre assessments include women post-harvest workers and reflect their input.	Year 1 Q3 to Year 2 Q2	PMU; technical assessment team; partner cooperatives; MinDA.	Included in activity costs (Output 2.2 total: USD 5,482,245)
A2.2.2.3 Prepare procurement-ready tender documentation and contract requirements using gender-responsive procurement: include in the technical specifications the working-condition needs raised by women post-harvest workers, ask bidders about their action to advance gender equality (Women's Empowerment Principles or similar) and credit gender-responsive practices where a points-based evaluation is used.	Number of ADAPT Centres established and commissioned (RF OP2.2-I.1) for which tender documentation and bid criteria include the gender-responsive procurement provisions.	Procurement does not currently include gender-responsive provisions, to: all relevant ADAPT Centre tender documentation includes them.	Year 2 Q4 to Year 3 Q2	PMU, UNIDO procurement; technical design team.	Included in activity costs (Output 2.2 total: USD 5,482,245)
A2.2.3.3 Commission ADAPT Centres and establish operating arrangements, designing the management arrangements so they do not simply reproduce existing cooperative-board patterns and actively promoting women's representation in ADAPT Centre management toward the 40 to 60 percent parity range. Operating	Number of ADAPT Centres commissioned and placed into operation (RF OP2.2-I.1), with women's representation in ADAPT Centre management arrangements promoted toward the 40 to 60 percent parity range, specific target set at inception; number and percentage of women, Indigenous women, youth, persons with disabilities and beneficiaries from female-	Women active in cooperatives but under-represented in formal cooperative authority; no ADAPT Centre service-use data before the project, to: women's representation promoted toward the 40 to 60 percent parity range, with the specific target set at inception; women and vulnerable groups access ADAPT Centre services,	Year 4 to Year 5	PMU; GISAC for advice; Municipal Agriculturist; partner cooperatives.	Included in activity costs (Output 2.2 total: USD 5,482,245)

arrangements will also track whether women and vulnerable groups are accessing ADAPT Centre services in practice, disaggregated by service type. The specific management target is set at inception, once the arrangements are agreed with the LGUs and cooperatives, since management is shared with the Municipal Agriculture Offices and the cooperatives.	headed households accessing ADAPT Centre services, disaggregated by service type, including aggregation, post-harvest handling, storage, pre-processing, value addition and other locally relevant adaptation support functions.	with service-use data disaggregated by sex, Indigenous status, age, disability status and household headship where relevant.			
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COMPONENT 3: INVEST (Inclusive Financing for FVVC Enhancement and Sustainable Transformation)

Outcome 3 (Climate-Resilient Agriculture Investment System): Adaptive capacity and on-farm climate resilience of Small and Micro Cooperatives and their members strengthened through access to and application of climate-resilient agriculture solutions, climate-risk-informed business planning, and improved alignment of rural finance and concessional capital, reducing dependency on high-interest informal credit.

Gender outcome statement: Women take part in CRA business planning in ways that reflect their real financial roles, female-headed households are not excluded by targeting rules and women-led groups are helped toward finance readiness.

Output 3.1 [LEARN & EXPERIENCE] ADAPT to Farm CRA Programme implemented with selected Small and Micro Cooperatives, combining close support for climate-risk-informed CRA business planning and demo farming to deliver practical experience, and tangible on-farm adaptation benefits through the application of technically sound CRA solutions under real farming conditions. [EE: to be identified prior to the AF Board and UNIDO]

Activities	Indicators	Targets (baseline to target)	Timeline	Responsibilities	Costs
A3.1.1.1 Develop the ADAPT to Farm CRA Programme package, tools and methodology so that the business-planning a finance-readiness tools should recognize that women already manage budgeting, records and loan processes in many households, and build on that role to strengthen women's participation in farm investment decisions, which men currently tend to control. The tools should also account for the household's real credit	Number of pre-selected cooperatives with CRA Business Plans completed using the project's package and tools (RF OP3.1-I.1), where the business-planning and finance-readiness tools build on women's financial-management role to strengthen women's participation in investment decisions and account for the household credit situation, including informal and trader loans.	None, to be established at inception, to: all CRA business-planning and finance-readiness tools developed by the project meet this standard.	Year 1 Q3-Q4	PMU; technical providers; GISAC for advice, executing partner.	Included in activity costs (Output 3.1 total: USD 3,000,000)

situation, including reliance on informal or trader loans.					
A3.1.2.1 Deliver the CRA Business Planning cycle to participating cooperatives and core farmer cohorts, reaching both women and men and ensuring that women and vulnerable groups can access CRA business-planning and finance-readiness support. The activity will build on women's existing work with budgets and records and review targeting so that female-headed households, Indigenous women, youth, persons with disabilities and other farmers who farm in practice are not excluded by registration, land-title or membership records	Number of targeted participants from the pre-selected cooperatives completing the CRA Business Planning Programme (RF OP3.1-I.2), disaggregated by sex, Indigenous status, age, disability status and household headship where relevant; number and percentage of women, Indigenous women, youth, persons with disabilities and beneficiaries from female-headed households accessing CRA business-planning and finance-readiness support.	No sex-disaggregated or vulnerability-disaggregated data before the project; female-headed households and other farmers who farm in practice are often less visible in formal registration, land-title and membership records, to: participation consistent with the 40 percent women beneficiary target; CRA business-planning and finance-readiness support accessed by women and vulnerable groups; targeting review explicitly considers female-headed households, Indigenous women, youth and persons with disabilities.	Year 2 Q2 to Year 3 Q2	PMU; cooperatives; executing partner.	Included in activity costs (Output 3.1 total: USD 3,000,000)
A3.1.2.2 Provide farm diagnostics and close mentoring so that women members and vulnerable groups receive mentoring directly rather than only through male household or cooperative representatives. This includes women who manage household records and finances, Indigenous women, youth, persons with disabilities and beneficiaries from female-headed households, recognizing that these groups may be active in farming practice but less visible in formal cooperative, land-title or registration records.	Number of participants from the pre-selected cooperatives receiving direct farm diagnostics and mentoring under the CRA Business Planning Programme (RF OP3.1-I.2), disaggregated by sex, Indigenous status, age, disability status and household headship where relevant; number and percentage of women, Indigenous women, youth, persons with disabilities and beneficiaries from female-headed households receiving direct diagnostics and mentoring	No mentoring-reach data before the project, to: women and vulnerable groups receive direct diagnostics and mentoring, consistent with the 40 percent women beneficiary target, with corrective outreach where women, Indigenous women, youth, persons with disabilities or beneficiaries from female-headed households are under-represented.	Year 3	PMU; cooperatives; executing partner	Included in activity costs (Output 3.1 total: USD 3,000,000)
A3.1.2.3 Review, validate and endorse CRA Business Plans for transition into demo farming, with GISAC providing the inclusion, safeguards and benefit-	Number of climate-risk-informed CRA Business Plans prepared and screened for demo-farming readiness (RF OP3.1-I.3) that receive GISAC inclusion and benefit-sharing	Endorsement step defined in the project document but not yet operating, to: all CRA Business Plans, toward the RF target of 5, receive GISAC endorsement before	Year 3 Q3-Q4, at each review cycle	GISAC; PMU as secretariat.	Included in activity costs (Output 3.1 total: USD 3,000,000)

sharing endorsement. The review will consider whether women, Indigenous women, youth, persons with disabilities and beneficiaries from female-headed households are identified in benefit-sharing arrangements and are not excluded from demo-farming and grant-supported benefits.	endorsement before transition; number and percentage of women, Indigenous women, youth, persons with disabilities and beneficiaries from female-headed households identified in approved benefit-sharing arrangements for demo farming and grant-supported benefits.	transition; benefit-sharing arrangements identify how women, Indigenous women, youth, persons with disabilities and beneficiaries from female-headed households will access demo-farming and grant-supported benefits.			
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Output 3.2 [SCALE] ADAPT to Invest programme implemented with rural finance actors and existing concessional rural finance programmes, enabling them to screen, assess and align capital to CRA opportunities through CRA screening criteria, climate risk assessment approaches, and adaptation-focused appraisal processes.

Activities	Indicators	Targets (baseline to target)	Timeline	Responsibilities	Costs
A3.2.1.1 Map concessional and rural finance streams and establish the finance-engagement platform, identifying the specific barriers that keep women-led groups, associations and cooperatives from accessing finance. The scope is readiness and help with access.	Number of concessional or rural finance streams for which CRA adaptation investment screening criteria are developed or adapted with participating finance actors (RF OP3.1-I.4), with the mapping and platform work identifying the barriers facing women-led groups.	Women-led groups documented as excluded from formal lending to: number of women-led groups supported toward finance readiness, set with finance partners at inception.	Year 3	PMU; financial-service partners; GISAC for advice.	Included in activity costs (Output 3.2 total: USD 540,000)
A3.2.1.2 Develop, review and finalize the CRA adaptation investment screening framework with participating finance actors so that the screening criteria are gender-responsive and reflect women's roles and access constraints.	CRA adaptation investment screening framework developed with participating finance actors (RF OP3.1-I.4) whose criteria are gender-responsive and reflect women's roles and access constraints.	None, to be established at inception, to: the screening framework is gender-responsive.	Year 3 to Year 5 Q1	PMU; financial-service partners.	Included in activity costs (Output 3.2 total: USD 540,000)

CROSS-CUTTING ACTIONS

These apply across the project and do not sit under a single activity. They cover risk, grievance redress, sub-project screening, knowledge management, communication and capacity, consistent with the areas a GAP is expected to address beyond the output rows.

Area	GAP action	Indicators	Targets (baseline to target)	Timeline	Responsibilities	Costs
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Risk management	Keep a gender risk in the project risk register, including gender-based violence, sexual exploitation, abuse and harassment and backlash from changes in gender roles, with mitigation cross-referenced to the ESMP rather than repeated.	Gender risk recorded in the register with mitigation cross-referenced to the ESMP.	Not yet reflected in the GAP risk linkage, to: maintained throughout implementation.	Throughout; reviewed at PSC reviews.	National Environmental, Gender and Social Safeguards Experts; GISAC for advice; PSC for review.	Met from project records consolidation and monitoring of GAP/ESMP
Inclusive targeting across vulnerable groups	Apply inclusion and benefit-sharing criteria in beneficiary selection, sub-project screening, consultation, training access, service access and grievance handling that explicitly cover women, Indigenous Peoples, Indigenous women, youth, older farmers, persons with disabilities and female-headed households. Collect disaggregated participation, representation and access-to-benefit data so that under-represented groups can be identified and reached through corrective outreach.	Inclusion and benefit-sharing criteria applied in beneficiary selection, sub-project screening, consultation, training access and grievance handling; participation, representation and access-to-benefit data collected and disaggregated, where relevant, by sex, Indigenous status, age, disability status and household headship; GISAC reviews inclusion at the relevant stages and recommends corrective outreach where women or vulnerable groups are under-represented.	Limited disaggregated data at formulation, with persons with disabilities recorded only in small numbers in the cooperatives and limited systematic data on Indigenous women, youth, older farmers and female-headed households, to: inclusion criteria applied across relevant activities; disaggregated data collected from inception; and corrective outreach undertaken where women, Indigenous women, youth, older farmers, persons with disabilities or beneficiaries from female-headed households are under-represented in participation, representation or access to benefits.	Criteria confirmed at inception; applied throughout.	PMU/M&E function; national Environmental, Gender and Social Safeguards Experts; GISAC for advice.	Met from the Baseline Data Report with disaggregated indicators and the national Environmental, Gender and Social Safeguards Experts
Grievance redress	Make the grievance mechanism work for women in practice through entry points women trust, such as RIC focal points and women cooperative officers, and channels women can reach, such as SMS, suggestion boxes and women-only feedback moments. Information on the mechanism will be shared in	Grievance mechanism includes gender-accessible entry points and channels; use monitored by sex; confidential, survivor-centred	Gender-accessibility features not yet set out in the GAP, to: mechanism accessible to women and monitored by sex, consistent with	From project start, throughout.	National Environmental, Gender and Social Safeguards Experts; GISAC for advice.	Met from the inception workshop, including ESMP/GISAC/GRM set-up

	ways that reach women, recognizing that information often reaches men first, and use will be monitored by sex. For GBV, SEA and SH-related complaints, the GRM will include confidential, survivor-centred channels, clear referral pathways, designated responsible staff, confidentiality protocols and options to report outside cooperative leadership structures, consistent with the ESMP.	channels for GBV, SEA and SH-related complaints established with referral pathways, designated responsible staff, confidentiality protocols and options to report outside cooperative leadership structures.	ESMP quarterly tracking.			
GBV prevention capacity	Deliver the GBV, SEA and SH awareness and prevention training set out in the ESMP to the PMU, contractors, cooperatives and LGUs. Reference the ESMP activity rather than repeating it.	GBV, SEA and SH awareness and prevention training delivered as set out in the ESMP.	Provided for in the ESMP, to: delivered per the ESMP training plan.	Per the ESMP schedule.	National Environmental, Gender and Social Safeguards Experts; contractors.	Resourced under the ESMP, through the inception ESMP/ GISAC /GRM set-up
Sub-project screening	Apply gender screening to Unidentified Sub-Projects, including ADAPT Centres and demo-farming packages, through the ESMF screening before approval, consistent with the Adaptation Fund Gender Policy applying to such sub-projects.	Gender screening applied to sub-projects before approval.	ESMF screening includes gender; link not yet stated in the GAP, to: all sub-projects screened before approval.	At each sub-project screening.	National Environmental, Gender and Social Safeguards Experts; GISAC for advice.	Met from safeguards and gender compliance supervision
Knowledge management	Document and share gender-related results, lessons and good practice, with sex-disaggregated data and without reproducing gender stereotypes in materials.	Gender-related results and lessons documented and shared at least once a year.	No such documentation before the project, to: at least one gender-related knowledge product or section each year.	Throughout.	PMU; GISAC for advice.	Met from the Communications and Knowledge Management Experts
Communication	Use gender-inclusive language in project communications, show both women's and men's voices and images, and feature gender-related results.	Communications reviewed for inclusive language and balanced representation.	No such practice before the project, to: all major project communications.	Throughout.	PMU; MinDA.	Met from the Communications and Knowledge Management Expert
Capacity and parity	Apply the UNIDO panel-parity policy across all project events as a standing commitment, and constitute GISAC with the vulnerable-group and GAD representation set out in the project document.	Project events meet the panel-parity policy; GISAC composed as the project document sets out.	Defined in the project document but not yet operating, to: all project events compliant; GISAC constituted at inception.	Throughout; GISAC at inception.	PMU; PSC; GISAC.	Met from project coordination and M&E activities

GAP implementation and monitoring

The GAP is delivered through the project's management and governance arrangements. Implementation is led through the national Environmental, Gender and Social Safeguards Experts engaged by the project. GISAC advises the PSC on inclusion, safeguards, benefit-sharing, grievance handling and learning, and provides the inclusion and benefit-sharing endorsement at the CRA Business Plan stage. The PSC reviews gender performance and corrective action. The PMU consolidates monitoring each quarter and reports through the Adaptation Fund Project Performance Report.

The project monitors and reports gender results both quantitatively and qualitatively, with indicators disaggregated by sex at every stage, from baselines and targets through to progress and final reporting. Quantitative tracking covers participation, representation and access. Qualitative tracking follows the empowerment pathway, from participation through skills, bargaining power, decision-making and control over resources. Gender monitoring is nested in the ESMP monitoring plan where relevant, including the quarterly grievance tracking and the GBV, SEA and SH commitment.

Annex A: Stakeholder Consultation and Survey Materials

Annex C – Environmental and Social Impact Assessment with Environmental and Social Management Plan

1.1 ESIA Objectives

1. Based on the screening of the concept note against the Adaptation Fund Environmental and Social Policy (AF ESP), the project is classified as Category B, indicating that potential environmental and social impacts are expected to be limited, site-specific, and manageable through standard mitigation measures. In accordance with the AF ESP, an Environmental and Social Impact Assessment (ESIA) with an associated Environmental and Social Management Plan (ESMP) was prepared for the project.
2. The ESIA was conducted to identify and evaluate the potential environmental and social risks and impacts of the Project and to ensure compliance with the Adaptation Fund Environmental and Social Policy, the UNIDO Environmental and Social Safeguards Policy, and applicable national regulations. The assessment established baseline environmental and social conditions, evaluated the potential impacts of the LEAD, PROCESS, and INVEST components, and identified measures to avoid, minimize, mitigate, or enhance project impacts.
3. The ESIA further supported stakeholder engagement by documenting consultations undertaken during project preparation and developing a Stakeholder Engagement Plan (SEP) to guide continued stakeholder participation throughout project implementation. In addition, it established a Grievance Redress Mechanism (GRM) to provide accessible procedures for receiving, addressing, and resolving project-related concerns and complaints.
4. The findings of the ESIA provided the basis for the preparation of the ESMP, which outlines the mitigation, monitoring, and management measures for identified risks and impacts of the Project. The ESIA also informed the preparation of the Environmental and Social Management Framework (ESMF), which establishes the environmental and social screening procedures, eligibility criteria, safeguards requirements, and management measures for the Unidentified Sub-projects (USPs). USPs of the Project area considered as partially unidentified with specific location identified but specific activities are to be determined.

1.2 Methodology

5. **Site reconnaissance.** Site reconnaissance and drone surveys were conducted in the proposed sites for the PROCESS and INVEST components of the Project. The activity aimed to obtain an overview of the existing site conditions and surrounding areas. The activity included documentation of key environmental features such as existing land use, vegetation cover, water bodies, and other ecological characteristics within and around the site. Potential sensitive receptors and nearby features that may be affected by the proposed subproject were also identified and noted during the inspection.
6. **Review of available secondary data.** Available relevant secondary sources were reviewed to gather supplemental data.
7. **Courtesy Call and Data Gathering / Key Informant Interview (KII).** Courtesy calls and KIIs were conducted with the five (5) host LGUs to present the proposed project, gather insights about the project components, and collect secondary baseline E&S data for the ESIA. The LGU representatives met and interviewed included the Local Chief Executive (LCE) or Mayor, department head/officers or staff from the City/Municipal Planning and Development Office (C/MPDO), Municipal Environment and Natural Resources Office (MENRO), Municipal Engineering Office (MEO), Municipal Disaster Risk Reduction and Management Office (MDRRMO), Municipal Agricultural Office (MAO), Public Employment Service Office (PESO), Municipal Social Welfare and Development (MSWDO) and/or specific focal persons handling women/gender and development (GAD), senior citizens, youth, and persons with disabilities (PWDs) affairs in the locality.
8. The availability of LGU documents containing latest available information on the existing environmental and socio-economic conditions, policies, plans, and programs in the project site, such as the City/Municipal Ecological Profile/Socio-Economic Profile, Comprehensive Land Use Plan (CLUP), Climate and Disaster Risk Assessment (CDRA) Report, Local Climate Change Action Plan (LCCAP), Local Disaster Risk Reduction and Management Plan (LDRRMP), Solid Waste Management (SWM)

Plan, and Forest Land Use Plan (FLUP), was confirmed during the data gathering sessions/KIIs with the LGU representatives.

9. Data/statistics, policies, plans, and programs specific to various sectors, i.e., agricultural sector, labor and employment, women, youth, senior citizens, PWDs, and IPs, if present, were also requested during the sessions, including the Local GAD Plan and the Ancestral Domain Sustainable Development and Protection Plan (ADSDPP), if available.
10. Coordination meeting and KIIs were also conducted with the National Commission on Indigenous Peoples (NCIP) Regional Offices and Community Service Center (CSC) to inform them about the project and inquire about NCIP requirements for subprojects that fall within areas with Certificate of Ancestral Domain Titles (CADTs).
11. **Focus Group Discussion (FGD).** FGDs were conducted with the members and officials of the farmers' cooperatives to discuss the project's E&S requirements, as well as its potential impacts and corresponding mitigating measures. Representatives from local cooperatives were also interviewed to gather relevant information on existing conditions, community concerns, and sector-specific needs related to the proposed subprojects.
12. **Impact Assessment.** The ESIA was guided by the AF ESP and its associated Environmental and Social Principles. The assessment systematically identified, evaluated, and assessed the potential environmental and social risks and impacts associated with the Project and examined the Project's consistency with the AF ESP principles.
13. In addition, the ESIA was also guided by the United Nations Industrial Development Organization (UNIDO) Operational Safeguards (OS). These safeguards provided a complementary framework to ensure that environmental and social risks are systematically identified, assessed, and managed throughout the project lifecycle.
14. Table 1-1 shows the alignment of the 15 AF ESP Principles and the 12 UNIDO OS.

Table 2-1: Alignment of Adaptation Fund Environmental and Social Policy Principles and UNIDO Operational Safeguards

Adaptation Fund (AF) ESP Principles	UNIDO ESSPP Alignment
ESPP 1: Compliance with the Law	Guiding Principle: Compliance with national and international laws
ESPP 2: Access and Equity	OS1: Environmental and Social Assessment OS 4: Indigenous People OS 11: Information Disclosure and Stakeholder Consultation OS 12: Accountability and Grievance System
ESPP 3: Marginalized & Vulnerable Groups	OS1: Environmental and Social Assessment OS 4: Indigenous People
ESPP 4: Human Rights	OS1: Environmental and Social Assessment OS 11: Information Disclosure and Stakeholder Consultation OS 12: Accountability and Grievance System
ESPP 5: Gender Equality & Women's Empowerment	Guiding Principle: Gender Equality and Gender-related Impacts OS1: Environmental and Social Assessment
ESPP 6: Core Labor Rights	OS1: Environmental and Social Assessment OS 8: Labour and Working Conditions OS 11: Information Disclosure and Stakeholder Consultation OS 12: Accountability and Grievance System
ESPP 7: Indigenous Peoples	OS 4: Indigenous People
ESPP 8: Involuntary Resettlement	OS 3: Involuntary Resettlement and Land Acquisition
ESPP 9: Protection of Natural Habitats	OS 2: Protection of Natural Habitats & Biodiversity
ESPP 10: Conservation of Biological Diversity	Guiding Principle: Climate change risk and resilience OS 2: Protection of Natural Habitats & Biodiversity
ESPP 11: Climate Change	OS 9: Resource Efficiency and Pollution Prevention
ESPP 12: Pollution Prevention & Resource Efficiency	OS 5: Pest and Chemical Management OS 9: Resource Efficiency and Pollution Prevention
ESPP 13: Public Health	OS 10: Community Health, Safety, and Security
ESPP 14: Physical and Cultural Heritage	OS 6: Cultural Heritage
ESPP 15: Lands and Soil Conservation	OS1: Environmental and Social Assessment OS 2: Protection of Natural Habitats & Biodiversity

2 Description of Environment and Social Baseline

15. Baseline environmental and social assessments were conducted across the five project sites, including the proposed ADAPT Centre locations and demonstration farm sites identified by the participating LGUs and cooperatives during the ESIA consultations. The assessment documented the existing physical, biological, socioeconomic, and land-use conditions of the project areas and identified site-specific environmental and social risks, constraints, and opportunities relevant to project implementation.
16. Detailed baseline information for the five project sites is presented in Annex 1, while the succeeding sections provide a summary of the key findings relevant to the assessment of project risks and impacts.

2.1 Physical Environment

17. **Land Use¹.** The predominant existing land use of the proposed Component 2 and 3 sites across the project sites is Production Agricultural planted with annual and perennial crops. There are also candidate sites within built-up areas, such as one Component 2 site in Midsayap, which is a former public market classified as a Commercial/Institutional Zone, and the proposed Component 2 site in Sto. Tomas that is within an Institutional Zone.
18. Of particular interest are the proposed Component 3 in Paquibato District (Davao City), which is within a Forest and Forestland Zone with brush/shrubs land cover and one candidate Component 2 site in Midsayap, which is an irrigated rice field classified as a Protection Agricultural Zone.
19. **Climate Type.** The municipalities of Talakag and Midsayap are classified under Type III of the Modified Coronas Classification. This climate type has no very pronounced maximum rain period with a dry season lasting only from one to three months, either during the period from December to February or from March to May. The project sites in the Davao Region namely, Davao City and municipalities of Sto. Tomas and Compostela, fall under Type IV climate type wherein rainfall is more or less evenly distributed throughout the year.
20. **Water Bodies.** In Midsayap, there are no nearby rivers within the immediate vicinity of the proposed subproject site for Component 2 and the proposed cooperative site for Component 3. The nearest major water body is the Libungan River, which is located more than 5 kilometers away from the identified subproject sites. In Talakag, the proposed subproject site for Component 2 is located approximately 250 meters from the Kablangasan River, while the proposed site for Component 3 is situated around 800 meters from an unnamed creek. In Compostela, both proposed subproject sites are located near the Agusan River, with approximate distances ranging from 170 to 250 meters from the river. In Sto. Tomas, the proposed Component 2 subproject site is located approximately 520 meters from the Tuganay River, while the proposed Component 3 site is situated near an unnamed creek at an approximate distance of 200 meters. In Paquibato, the nearest major water body is the Siao River, which is located approximately 6.5 kilometers from the proposed subproject site.
21. **Geologic Hazard.** The susceptibility of the proposed subproject sites to geologic hazards was assessed using available geohazard information from HazardHunterPH, a web-based tool developed by the DOST-PHIVOLCS. The tool served as the primary reference for identifying potential exposure of the subproject sites to hazards such as flooding, landslides, earthquakes, liquefaction, and other geologic hazards. The assessment provides an initial understanding of site-specific hazard conditions to support project planning and risk management. Table 2-1 and Table 2-2 present the results of the geohazard assessment conducted for the Component 2 and Component 3 subproject sites, respectively.
22. As presented, the candidate Component 2 sites generally face the same risks of ground shaking from intensity VIII earthquakes and ashfall from the nearest active volcanoes. All sites were preliminarily assessed as safe from ground rupture, tsunamis, and storm surges but have varying levels of susceptibility to liquefaction (safe to moderately susceptible) and flooding (low to moderate susceptibility). The candidate Component 2 sites in Midsayap were assessed as prone to lahar flow and moderately susceptible to flooding.

¹ DENR-NAMRIA; Midsayap CLUP 2019-2027; Talakag CLUP 2021-2030; Draft Compostela CLUP 2026-2035; Davao City CLUP 2019-2028

Table 2-1: Summary of Geohazards in the Subproject Sites (Component 2)

Hazard	Midsayap			Talakag	Compostela	Sto. Tomas
	Site 1: Previous Public Market	Site 2: Vacant Lot	Site 3: Existing Nursery			
Ground Rupture	Safe; Approximately 4.9km northwest of the Aleosan Fault	Safe; Approximately 4.9km northwest of the Aleosan Fault	Safe; Approximately 5.1km west of the Aleosan Fault	Safe; Approximately 15.7km northeast of the Talakag Fault	Safe; Approximately 9.7km east of the Philippine Compostela Valley Segment	Safe; Approximately 6.5km northeast of the Colosas Fault
Ground Shaking	Prone; Intensity VIII	Prone; Intensity VIII	Prone; Intensity VIII	Prone; Intensity VIII	Prone; Intensity VIII	Prone
Liquefaction	Least Susceptible	Moderately Susceptible	Moderately Susceptible	Safe	Generally Susceptible	Generally Susceptible
Earthquake-induced Landslide	Temporarily Unavailable	Temporarily Unavailable	Temporarily Unavailable	Temporarily Unavailable	Temporarily Unavailable	Temporarily Unavailable
Tsunami	Safe	Safe	Safe	Safe	Safe	Safe
Nearest Active Volcano	Approximately 54.7km south of Ragang	Approximately 55.6km south of Makaturing	Approximately 57.4km south of Makaturing	Approximately 60.1km north of Ragang	Approximately 34.41km north of Leonard_Range	Approximately 52.4km west of Leonard_Range
Lahar	Prone; Susceptible; Susceptible	Prone	Prone	Safe	Safe	Safe
Ashfall	Prone	-	-	Prone	Prone	Prone
Rain-induced Landslide	-	-	-	Low Susceptibility; No identified landslides	-	
Flood	Moderate Susceptibility; 0.5 to 1 meter flood height and/or 1 to 3 days flooding	Moderate Susceptibility; 0.5 to 1 meter flood height and/or 1 to 3 days flooding	Moderate Susceptibility; 0.5 to 1 meter flood height and/or 1 to 3 days flooding	-	Moderate Susceptibility; 0.5 to 1 meter flood height and/or 1 to 3 days flooding	Low Susceptibility; less than 0.5 meters flood height and/or less than 1 day flooding
Severe Wind	60.1-88kph (20-year return period); 88.1-117kph (500-year return period)	60.1-88kph (20-year return period); 88.1-117kph (500-year return period)	60.1-88kph (20-year return period); 88.1-117kph (500-year return period)	88.1-117kph (20-year return period); 88.1-117kph (500-year return period)	60.1-88kph (20-year return period); 88.1-117kph (500-year return period)	60.1-88kph (20-year return period); 88.1-117kph (500-year return period)
Storm Surge	Safe	Safe	Safe	Safe	Safe	Safe
Source: HazardHunterPH						

Table 2-2: Summary of Geohazards in the Subproject Sites (Component 3)

Hazard	Midsayap (CMPC)	Talakag (TFAC)	Compostela (LOBACO)	Sto. Tomas (SIFARBCO)	Paquibato (MUFF)
Ground Rupture	Safe; Approximately 5.3km northeast of the Aleosan Fault	Safe; Approximately 13km north of the Napalit Fault	Safe; Approximately 4.3km east of the Philippine Compostela Valley Segment	Safe; Approximately 9.4km northeast of the Colosas Fault	Safe; Approximately 8.1km west of the Central Davao Fault System; Pangyan-Biao Escuela Fault
Ground Shaking	Prone: Intensity VIII	Prone; Intensity VIII	Prone; Intensity VIII	Prone	Prone; Intensity VII
Liquefaction	Safe	Safe	Generally Susceptible	Generally Susceptible	Safe
Earthquake-induced Landslide	Temporarily Unavailable	Temporarily Unavailable	Temporarily Unavailable	Temporarily Unavailable	Temporarily Unavailable
Tsunami	Safe	Safe	Safe	Safe	Safe
Nearest Active Volcano	Approximately 55.6km south of Ragang	Approximately 34.2km northwest of Musuan	Approximately 33.1km north of Leonard_Range	Approximately 50.6km west of Leonard_Range	Approximately 66.4km southeast of Musuan
Lahar	Safe	Safe	Prone; Susceptible; Susceptible	Safe	Safe
Ashfall	Prone	Prone	Prone	Prone	Prone
Rain-induced Landslide	Low Susceptibility; No identified landslides	Low Susceptibility; No identified landslides	-	-	High Susceptibility; Numerous old/inactive landslides present
Flood	-	-	Very High Susceptibility; more than 2 meters flood height and/or more than 3 days flooding	Low Susceptibility; less than 0.5 meters flood height and/or less than 1 day flooding	-
Severe Wind	60.1-88kph (20-year return period); 88.1-117kph (500-year return period)	88.1-117kph (20-year return period); 88.1-117kph (500-year return period)	60.1-88kph (20-year return period); 88.1-117kph (500-year return period)	60.1-88kph (20-year return period); 88.1-117kph (500-year return period)	60.1km – 88kph (20-year return period); 88.1-117kph (500-year return period)
Storm Surge	Safe	Safe	Safe	Safe	Data are being updated
Source: HazardHunterPH					

2.2 Biological Environment

23. **Terrestrial Flora and Fauna.** The proposed component project sites in Midsayap, Talakag, Compostela, and Santo Tomas are situated within agricultural and built-up areas outside of forest and forestland areas. Only the proposed Component 3 site in Paquibato District is situated within the Forest and Forestland Zone of Davao City.
24. **Critical and Protected Watershed².** There are no critical nor proclaimed watersheds within the municipalities of Midsayap, Compostela, and Santo Tomas. On the other hand, portions of Talakag and Paquibato District (Davao City) are considered as critical watersheds (i.e., Manupali Watershed Forest Reservation or WFR, Muleta WFR, and Lasang River Watershed), but none of the proposed Component 2 and 3 sites fall within these areas.
25. **Protected Area³.** There are no legislated or proclaimed protected areas in Midsayap, Santo Tomas, and Paquibato District. Although portions of Talakag and Compostela are covered by legislated protected areas (i.e., PA-196: Mt. Kitanglad Range Natural Park, PA-197: Mt. Kalatungan Range Natural Park, and PA-210: Aliwagwag Protected Landscape), the proposed component project sites are outside these protected areas.
26. **Key Biodiversity Area⁴.** There are no identified key biodiversity areas (KBAs) in Midsayap, Santo Tomas, and Paquibato District. Some parts of Talakag and Compostela are covered by terrestrial KBAs (i.e., KBA-202: Mt. Kitanglad Range, KBA-203: Mt. Kalatungan Mountains Range Natural Park, and KBA-181: Mt. Atuganon and Mt. Pasian), but the proposed component sites are not located within these KBAs.

2.3 Socio-Economic Environment

2.3.1 Demographics⁵

27. **Population Growth Rate and Density.** From 2020 to 2024, the total population of Talakag, Santo Tomas and Davao City increased with an annual population growth rate (APGR) of positive 1.49%, 0.45%, and 0.96%, respectively. On the other hand, the total population of Midsayap and Compostela decreased with an APGR of negative 0.33% and 0.18%, respectively. In 2020, the average household size in the project sites ranged from 3.7 (Davao City) to 4.7 (Talakag), while the population density was lowest in Talakag (98 persons/km²) and highest in Davao City (727 persons/km²).
28. **Age and Sex Profile.** Across the five project sites, the working-age population (15 to 64 years old) accounted for about 58 to 65%, young dependents (0 to 14 years old) comprised 30 to 39%, and the elderly (65 years old and above) represented only 3 to 5% of the household population in 2020. The proportion of males (50.4 to 51.9%) was slightly higher than that of females (48.1 to 49.6%).
29. **Literacy Rate and Educational Attainment.** In 2020, the literacy rates of the household population 5 years old and over in Northern Mindanao, Davao Region, and SOCCSKSARGEN were 96.0%, 96.8%, and 94.7%, respectively, lower than the national rate of 97.0%. Literacy rate was marginally higher among females (96.2%) than males (95.8%) in Northern Mindanao, almost equal in Davao Region (96.7% for male, 96.9% for female), and equal in SOCCSKSARGEN (94.7% for both sexes).
30. In terms of highest educational attainment, about 32 to 34% of the household population 5 years old and over in the three regions had reached or completed at most elementary level; 38 to 39%, high school or secondary level; and 19 to 21%, college level. A small percentage (2 to 4%) had “no grade completed” or did not complete any formal schooling.

2.3.2 Local Economy/Industries

31. The following information is synthesized from the latest available PSA provincial product accounts and the host LGUs' respective socio-economic profiles.
32. **Municipality of Midsayap⁶.** The municipality has an economy that is predominantly agriculture-based, consistent with the broader economic structure of Region XII. Agricultural production remains the primary source of livelihood, with a substantial portion of land devoted to rice and corn cultivation, alongside high-

² DENR-FMB via [Geoportal Philippines](#)

³ [DENR-BMB Protected Area Information System](#)

⁴ [The Philippine Clearing House Mechanism](#)

⁵ PSA 2020 Census of Population and Housing (CPH) and 2024 Census of Population (POPCEN)

⁶ Midsayap CLUP 2019-2027; [DA-ATI Regional Training Center XII \(SOCCSKSARGEN\)](#); [DA Regional Field Office XII](#)

value commercial crops, such as coconut, banana, and mango. This reflects the municipality's role as part of a key agricultural corridor in Central Mindanao, where food production underpins both local consumption and regional supply chains.

33. In addition to primary agriculture, Midsayap functions as a local trading and service hub within the PPALMA (Pigcawayan–Pikit–Alamada–Libungan–Midsayap–Aleosan) growth area. Agricultural goods produced within the municipality and neighboring areas are consolidated and traded in local markets, supporting wholesale and retail trade activities. This trading function generates secondary economic activity in transport, logistics, and small-scale commerce.
34. Emerging economic activities include livestock and poultry production, horticulture, and small-scale agro-processing, although these remain relatively underdeveloped compared to primary crop production. There is recognized potential for expanding value-added processing, particularly for coconut, fruits, and meat products, which could strengthen local income generation and reduce dependence on raw commodity sales.
35. There are two (2) Producers cooperatives and one (1) Agrarian Reform cooperative in Midsayap registered with the Cooperative Development Authority (CDA) as of December 2024. CMPC is registered as a Producers cooperative with Registration No. 9520-101200032715.
36. **Municipality of Talakag**⁷. Talakag is a landlocked municipality in the province of Bukidnon, a province widely recognized as a major agricultural producer in Northern Mindanao. The provincial economy is heavily dependent on agriculture, forestry, and fishing, which collectively form the backbone of economic activity and employment. Bukidnon is a leading producer of rice, corn, sugarcane, banana, pineapple, coffee, and livestock products, shaping the economic structure of municipalities such as Talakag.
37. Talakag contributes to this provincial economy through its highland agricultural systems, particularly in vegetable production and diversified farming. Its upland terrain supports the cultivation of high-value crops supplied to urban markets across Mindanao. These agricultural activities are often integrated into regional supply chains, linking smallholder farmers to traders, processors, and distributors.
38. Livestock and poultry production also play a supporting role in the local economy, consistent with Bukidnon's prominence in animal production. The presence of agri-based enterprises and processing facilities in the province enhances the value chain, although much of Talakag's production remains at the primary stage.
39. There are three (3) Agriculture cooperatives, one (1) Producers cooperative, and one (1) Agrarian Reform cooperative in Talakag registered with the CDA as of December 2024. TFAC is registered as an Agriculture cooperative with Registration No. 9520-1010000000044987.
40. **Municipality of Compostela**⁸. Compostela is a first-class municipality in the province of Davao de Oro, located in the southeastern part of Mindanao, Philippines. It serves as one of the province's economic and agricultural centers, known for its fertile lands, mineral resources, and role in regional trade within the Davao Region.
41. Agriculture remains a foundational sector in Compostela. Major crops include rice, coconut, banana, cacao, coffee, and various tropical fruits. These agricultural activities are largely undertaken by smallholder farmers and contribute significantly to rural livelihoods and food security. The town also benefits from small- to medium-scale mining of gold and other minerals, activities that have historically shaped livelihoods in the region. Trade and services have expanded steadily, supported by infrastructure linking Compostela to Nabunturan (the provincial capital) and Davao City.
42. There are three (3) Agriculture, two (2) Producers, and two (2) Agrarian Reform cooperatives in Compostela registered with the CDA as of December 2024. LOBACO is registered as an Agriculture cooperative with Registration No. 9520-101100036188.
43. **Municipality of Santo Tomas**⁹. Santo Tomas is a first-class municipality that operates within the dynamic economy of Davao del Norte, which has increasingly transitioned toward a services-oriented structure, with services contributing the largest share of provincial output (over 50%), followed by industry and agriculture.

⁷ Talakag CLUP 2021-2030; [Bukidnon Provincial Government](#)

⁸ Draft Compostela CLUP 2026-2035; [PSA Provincial Product Accounts 2024 – Davao de Oro](#)

⁹ [Santo Tomas LGU Official Website](#); [PSA Provincial Product Accounts 2024 – Davao del Norte](#)

44. Despite this structural shift, Santo Tomas retains a strong agriculture-based local economy, particularly driven by extensive production of export-grade bananas. The municipality hosts processing and packing plants tied to large agricultural corporations. Rice production also contributes to local food supply and rural incomes. In recent years, industrial zones have emerged, diversifying employment and investment opportunities.
45. The municipality benefits from favorable agro-climatic conditions and proximity to major economic centers such as Tagum City and Davao City, enabling participation in regional trade and logistics networks. These linkages support the growth of commerce, transport, and other service-related activities.
46. There are four (4) Agrarian Reform, five (5) Agriculture, and two (2) Producers cooperatives in Santo Tomas registered with the CDA as of December 2024. SIFARBCO is registered as an Agrarian Reform cooperative with Registration No. 9520-11021670.
47. **Paquibato District (Davao City)**¹⁰. Davao City is the largest and most economically significant urban center in Mindanao, accounting for more than half of the total economic output of the Davao Region. The city recorded strong economic growth of 7.9% in 2024, reflecting sustained expansion and recovery.
48. The city's economy is predominantly services-driven, with the sector accounting for approximately 70.3% of total output. Key industries include wholesale and retail trade, transportation, finance, real estate, education, and government services. Industry, particularly construction and manufacturing, also contributes significantly, while agriculture plays a smaller but still important role.
49. Within this urban economy, Paquibato District represents a rural and agriculture-based district. Economic activities in the district are centered on upland farming, including the production of banana, cacao, coffee, and high-value fruits. These are largely produced by smallholder farmers and supplied to local markets within Davao City and nearby provinces.
50. There are 23 Agriculture, 17 Producers, and 10 Agrarian Reform cooperatives in Davao City registered with the CDA as of December 2024.

2.3.3 Land Tenure¹¹

51. **Municipality of Midsayap.** The proposed component sites in Midsayap are all titled and not covered by any tenurial instrument nor occupied by informal settler families (ISFs). However, there are existing structures observed at two candidate sites for Component 2: LGU Site 1 – Former Public Market and LGU Site 3 – Nursery.
52. **Municipality of Talakag.** The proposed component sites in Talakag are all titled with no existing structures nor ISFs. However, the proposed Component 3 site (TFAC Site) in Brgy. Miarayon is covered by a Certificate of Ancestral Domain Title (CADT).
53. **Municipality of Compostela.** The proposed component sites in Compostela are all titled and not covered by any tenurial instrument. However, the proposed Component 2 site in Brgy. Ngan has existing structures (logging) and ISFs.
54. **Municipality of Santo Tomas.** The proposed Component 2 site (i.e., Municipal Agricultural Development Center) in Santo Tomas is titled and is not covered by any tenurial instrument nor occupied by ISFs but has existing operational structures, while the proposed Component 3 site leased by SIFARBCO has no existing structures nor ISFs but is covered by a Certificate of Land Ownership Award (CLOA).
55. **Paquibato District (Davao City).** The proposed Component 3 site in Paquibato District (Davao City) is a titled property within a CADT. There are no existing structures nor ISFs at the site.

2.4 Marginalized and Vulnerable Groups¹²

56. **Indigenous Peoples**¹³. In Midsayap, there is an existing ancestral domain with Certificate of Ancestral Domain Title (CADT) No. R12-LIB-0216-207 awarded to the Erumanen Ne Menuvu ICC in 2016 and covering 7,829 ha across 23 barangays of the municipality. While most of the areas covered by the CADT had already been privately owned and titled, the Midsayap LGU, in coordination with the NCIP, prohibits the reclassification and urban land development of the ICC's identified sacred places and burial grounds,

¹⁰ Davao City CLUP 2019-2028; [PSA Provincial Product Accounts 2024 – Davao del Sur](#)

¹¹ Midsayap LGU; CMPC; Talakag LGU; TFAC; Compostela LGU; LOBACO; Santo Tomas LGU; SIFARBCO; Davao City LGU; MFF; NCIP

¹² PSA 2020 CPH

¹³ NCIP via Geoportal Philippines; Midsayap CLUP 2019-2027; Talakag CLUP 2021-2030; Draft Compostela CLUP 2026-2035; Davao City CLUP 2019-2028

which are located in the upland barangays of Malamote, Anonang, Bitoka, Milaya, and Upper Bulanan. The CADT area partially covers barangays Poblacion 5 and Bitoka. Site validation shall be undertaken with the NCIP Region XII during the project implementation stage to confirm if the candidate Component 2 and 3 sites in these barangays (i.e., LGU Site 1 – Former Public Market and CMPC Site) are within the CADT area and to avoid encroachment on the sacred places and burial grounds. The CADT area does not include barangays Bual Sur and Agriculture, where the other two candidate Component 2 sites (i.e., LGU Site 2 – Agricultural Area and LGU Site 3 – Nursery) are located. In 2019, the IP population in Midsayap was 2,178. As of 2026, 10 members (9%) out of 113 active regular and associate members of CMPC are IPs.

57. In Talakag, there is one (1) CADT area with CADT No. R10-TAL-0703-0010 covering four (4) barangays: Miarayon, Lapoc, Lirongan, and San Miguel. The Talaandig-Kalatunganon Tribes in these barangays formed a group called Miarayon, Lapok and Lirongan Talaandig Tribal Association, Inc. (MILALITTRA) with a unified indigenous political structure. The proposed Component 3 site of TFAC in Barangay Miarayon is situated within the CADT area. Site validation shall be undertaken with the NCIP Region X during the project implementation stage to ensure that the project will not encroach on sacred places and burial grounds within the CADT area. FPIC shall be secured from the Talaandig-Kalatunganon Tribes prior to any development within the project site. The CADT does not include Barangay 5 (Pob.), where the proposed Component 2 site is located. In 2024, the IP population in Talakag was 13,618. As of 2026, all 55 members of TFAC are part of the Talaandig-Kalatunganon tribes in Brgy. Miarayon.
58. In Compostela, there are two (2) CADT areas: CADT No. RXI-NEW-0204-019 was granted to the Kaimunan Lumad sang Compostela (KLC) of the Mandaya and Mansaka Tribes of Compostela and has a total area of 18,555 ha covering barangays Panansalan, Ngan, San Miguel, Tamia, and Mangayon. This CADT area is approximately one (1) kilometer away from proposed Component 2 site in Barangay Ngan and four (4) kilometers away from the proposed Component 3 site of LOBACO in Barangay Poblacion. The other CADT area was issued to the Montevista Integrated Association (MITA) of the Dibabawon and Mangguwangan Tribes of Montevista with CADT No. RXI-MON-0309-103 with a total area of 70.87 ha covering Brgy. Mapaca. In 2020, the IP population in Compostela was 3,214. As of 2026, LOBACO does not have IP members.
59. In Santo Tomas, there are two (2) CADT areas: CADT No. R11-TAL-0308-071 of the Ata-Manobo Tribes and CADT No. R11-DAV-0213-160 of the Ata Tribes. The proposed Component 2 and 3 sites are about 3 to 4 kilometers away from these CADT areas. As of 2025, the IP population in Santo Tomas is 21,138. As of 2026, SIFARBCO does not have IP members.
60. In Davao City, there is one (1) CADT area covering the Paquibato District: CADT No. R11-DAV-0213-160 was issued to the Ata Tribes in 2013 with a total area of 87,664.67 ha including areas outside Davao City. The CADT covers the entire area of Barangay Malabog, where the proposed Component 3 site of the MUFF is located. Site validation shall be undertaken with the NCIP Region XI during the project implementation stage to ensure that the project will not encroach on sacred places and burial grounds within the CADT area. FPIC shall be secured from the Ata Tribes prior to any development within the project site. In 2023, the IP population in Davao City was 10,203. As of 2026, 157 members (23%) out of 672 members of MUFF are IPs.
61. **Senior Citizen.** RA 9994 (Expanded Senior Citizens Act of 2010) defines “senior citizen” as any person aged sixty (60) years or over. Senior citizens comprised about 5.2 to 8.6% of the household population in the five project sites in 2020. The proportion of female senior citizens (51.0 to 54.5%) was considerably higher than that of male senior citizens (45.5 to 49.0%). As of April 2026, 42 members (40%) out of 104 active regular members of CMPC are senior citizens; five (5) members (9%) out of 55 active members of TFAC are senior citizens (3 male, 2 female); 15 members (13%) out of 117 active members of LOBACO are senior citizens (12 male, 3 female); 34 members (89%) out of 38 active members of SIFARBCO are senior citizens (26 male, 8 female).
62. **Women.** Women and girls comprised 48.1 to 49.6% of the household population in the five project sites in 2020. As of May 2026, 42 members (37%) out of 113 active regular and associate members of CMPC are women; 32 members (58%) out of 55 active members of TFAC are women aged 25 to 69; 43 members (37%) out of 117 active members of LOBACO are women aged 18 to 60 and above; nine (9) members (24%) out of 38 active members of SIFARBCO are women aged 58 to 74; and 147 members (22%) out of 672 active members of MUFF are women.

63. **Youth.** RA 8044 (Youth in Nation-Building Act) defines “youth” as those persons whose ages range from fifteen (15) to thirty (30) years old. The youth comprised about 27.9 to 30.1% of the household population in the five project sites in 2020. The proportion of the female youth (47.5 to 49.9%) was lower than that of the male youth (50.1 to 52.5%). As of April 2026, 18 members (16%) out of 117 active regular and associate members of CMPC are part of the youth (13 male, 5 female); 13 members (24%) out of 55 active members of TFAC are part of the youth aged 24 to 30 (6 male, 7 female); 12 members (10%) out of 117 active members of LOBACO are part of the youth aged 18 to 30 (11 male, 1 female). SIFARBCO does not have youth members (aged 15 to 30), with the youngest member being 51 years old.

2.5 Cultural Heritage¹⁴

64. **Municipality of Midsayap.** There is only one (1) identified cultural property in the municipality: the Santo Niño Parish Convent, a local cultural property located in Barangay Poblacion 2, approximately one (1) to six (6) kilometers away from the proposed Component 2 and 3 sites.
65. **Municipality of Talakag.** There are six (6) identified cultural properties in the municipality, but there is no data on the location of these registered properties, except for the *Tulogan Ta Talakag*, which is located in Barangay 2 (Pob.), about one (1) kilometer away from the proposed Component 2 site in Barangay 5 (Pob.) and more than 30 km away from the proposed Component 3 site in Barangay Miarayon.
66. **Municipality of Compostela.** There are 20 identified cultural properties in the municipality. Majority of these registered properties are intangible cultural heritage (e.g., food, clothing, games, dance, ritual, etc.), except for the Parish Church of Señor Santiago Apostol of Compostela, which is located in Barangay Poblacion, about 2.5 km from the proposed Component 3 site in the same barangay and 6 km from the proposed Component 2 site in Barangay Ngan.
67. **Municipality of Santo Tomas.** There are two (2) identified cultural properties in the municipality. One is an intangible cultural heritage, Buling-Buling Festival that is celebrated every January. The other one is the Gabaldon Schoolhouse of Kimamon Elementary School, which is located in Barangay Kimamon, about 9 km away from the proposed Component 3 site in Barangay New Visayas and 12 km from the proposed Component 2 site in Barangay Bobongon.
68. **Paquibato District (Davao City).** There are 90 identified cultural properties in the city, and most are located in the Poblacion, Agdao, and Talomo districts. Only one registered property, the Peace Monument in Barangay Paquibato (Pob.), falls within the Paquibato District.

¹⁴ NCCA Philippine Registry of Heritage (TALAPAMANA), updated as of March 2026

3 Environmental and Social Risks and Impacts Assessment

3.1 Compliance with Applicable Laws (AF Principle 1)

69. The Project is fundamentally designed to align with and support the sustainable development priorities of the Government of the Philippines and to comply with applicable national and local policies, regulations, and standards. As part of this ESIA, a detailed table with the Philippine E&S Laws, Regulations, and Standards relevant to the Project was prepared and included in the project main document, Part II – Section E *Alignment with national technical standards*.
70. The project includes three types of activities with different compliance requirements.
- a. Component 1 consists mainly of capacity building, coordination, planning, technical assessments and development of the Mindanao FVVC Adaptation Action Plan. These activities have limited direct E&S risk but are required to comply with standards on participation, access and equity, gender equality, Indigenous Peoples engagement, information disclosure and grievance redress.
 - b. Component 2 includes the establishment and operation of ADAPT Centres and related post-harvest infrastructure, equipment and shared services. This component triggers the main national technical standards related to environmental assessment, land and site suitability, building permits, occupational safety, water use, waste management, energy efficiency, sanitation, food handling and facility operation.
 - c. Component 3 includes CRA Business Planning, CRA Demo Farming, and grant-supported adaptation investments. Because specific demo-farming packages and grant-supported investments are finalized during implementation, they are subject to screening, eligibility criteria, safeguards review and applicable national permits before approval.
71. Furthermore, for Component 2, screening will be done to verify land access or asset-use arrangements, local permits, environmental requirements, labour and occupational safety considerations, waste and wastewater issues, food safety and sanitation requirements, IP considerations where relevant, grievance arrangements, inclusion measures and public-interest access conditions.

3.2 Potential Impacts related to Access and Equity (AF Principle 2)

72. The Project is designed to support smallholder farmers, cooperatives, farmers' associations, and local value-chain actors across the project sites. Despite its inclusive design, there remains a risk that certain groups may face barriers in accessing project benefits, services, and opportunities, resulting in unequal distribution of benefits among eligible stakeholders.
73. One potential risk relates to geographic accessibility. Some target communities, particularly the IPs and farmers residing in upland and remote areas of Talakag, Compostela, and Paquibato District, may face difficulties in attending consultations, training activities, business planning sessions, and other project-related engagements due to distance, transportation costs, travel time, and limited connectivity. Additional barriers may arise from language differences, literacy levels, and cultural considerations. To address this risk, consultations and training activities will be conducted, where feasible, in accessible locations within the communities and scheduled at times that are convenient for participants. Adequate advance notice will be provided, and project information will be disseminated through multiple communication channels using local languages and culturally appropriate methods where necessary.
74. Another accessibility risk concerns the participation of women, elderly farmers, persons with disabilities, and poorer cooperative members. Consultations conducted as part of the Gender Assessment indicated that women often balance farming activities with household responsibilities, childcare, and family-related obligations, which may limit their availability to participate in project activities, particularly during peak farming seasons. Similarly, elderly farmers and persons with disabilities may experience mobility constraints, while poorer members may face financial limitations related to transportation and participation costs. To ensure equitable participation, the Project will adopt inclusive engagement approaches, including flexible scheduling, accessible venues, targeted outreach, and reasonable accommodations for vulnerable groups.
75. A further challenge may arise under the INVEST component, which requires eligible small and micro cooperatives to prepare and submit a Climate-Resilient Agriculture (CRA) Business Plan as part of the grant application process for demonstration farms and adaptation investments. The preparation of a

technically sound and climate-responsive business plan may be difficult for cooperatives with limited technical capacity, organizational experience, or access to professional support. This challenge may particularly be relevant to cooperatives with a large proportion of senior citizen members such as those in Sto. Tomas. To mitigate this risk, the Project will provide training, mentoring, coaching, and technical assistance to eligible cooperatives throughout the business planning process to ensure that all qualified organizations have a fair opportunity to access project support.

76. The establishment of shared facilities under Component 2, including cold storage facilities, processing equipment, aggregation and handling equipment and other post-harvest and climate-resilient infrastructures, may also create risks related to equitable access. Larger cooperatives, members located closer to the facilities, or organizations with stronger management capacities may be better positioned to utilize these facilities compared to smaller cooperatives, IP groups, remote communities, and poorer farmers. Transportation costs, scheduling arrangements, information gaps, and operational procedures may further influence access. To address these risks, transparent policies governing facility access, scheduling, user fees, and operational management will be developed and disclosed to all participating stakeholders. Facility management arrangements will be designed to ensure fair and equitable access for all eligible users regardless of cooperative size, location, ethnicity, gender, or socioeconomic status. Utilization of the facilities will be monitored regularly to ensure that benefits are distributed fairly among participating communities.
77. There is also a risk that better-organized cooperatives and groups with stronger institutional networks may have greater capacity to access technical assistance, financing opportunities, grants, and project services compared to smaller or less-established organizations. Without appropriate safeguards, this may unintentionally favor groups with greater organizational capacity and existing connections. To address this risk, the Project will apply transparent and objective beneficiary selection criteria, ensure broad disclosure of project opportunities, and undertake targeted outreach to underrepresented groups, including women, Indigenous Peoples, youth, persons with disabilities, and poorer cooperative members. A Project-level Grievance Redress Mechanism (GRM) shall be implemented to address concerns related to access, eligibility, participation, and benefit-sharing. Monitoring of project participation and benefits will be disaggregated by sex, age, IP status, disability status, and other relevant social characteristics to verify that project benefits are distributed fairly and equitably among intended beneficiaries.

3.3 Potential Impacts related to Marginalized and Vulnerable Groups (AF Principle 3)

78. The Project is expected to generate positive impacts for these groups through improved agricultural productivity, climate resilience, access to markets, financing opportunities, and livelihood support. However, there is a risk that the most vulnerable households may be underrepresented or may not fully benefit from project interventions if targeted outreach and inclusive participation mechanisms are not implemented. Potential barriers include low literacy levels, language differences, limited mobility, lack of transportation, competing household responsibilities, inadequate access to information, and unequal participation in cooperative decision-making processes.
79. Women comprise a substantial portion of both the community population and cooperative memberships across the project sites. As of 2026, women account for 58% of TFAC members, 37% of CMPC and LOBACO members, 24% of SIFARBCO members, and 22% of MUFF members. Consultations indicate that women play a critical role throughout the agricultural value chain, including planting, weeding, harvesting, post-harvest processing, record keeping, input procurement, marketing, and cooperative administration. In several cooperatives, women are also actively involved in packing operations, product processing, and financial management. While men generally undertake physically demanding activities such as land preparation, irrigation, spraying, transportation, and other labor-intensive farm work, farming is largely undertaken as a shared household responsibility. Women contribute substantial labor to farm production while simultaneously carrying primary responsibility for household management, including childcare, food preparation, housekeeping, and family budgeting.
80. Consultations revealed that women generally have equal opportunities to participate in trainings, cooperative meetings, and support programs and are often more active and vocal participants than men. Although women generally expressed willingness to attend meetings and training sessions, household responsibilities, childcare obligations, and seasonal farm activities may limit their availability. During planting and harvesting seasons, both women and men prioritize farm work over meetings and training. Several respondents noted that advance notice of at least one week improves participation, while training schedules that conflict with school activities or peak farming periods may reduce attendance. As a result,

women may have less time to attend trainings, business planning workshops, and consultation meetings, particularly if these are conducted during peak farming periods or conflict with household obligations. Women may also have limited participation in technical and investment-related decision-making, which could reduce their influence over the use of project-supported facilities and resources. Without targeted measures, women may not fully benefit from capacity-building and enterprise development activities.

81. In 2020, senior citizens comprised about 5.2 to 8.6% of the household population in the five project sites. Senior citizens represent a notable proportion of cooperative members, particularly in SIFARBCO where 89% of members are aged 60 years and above. Senior citizen membership is also significant in CMPC (40%), LOBACO (13%), and TFAC (9%). Senior citizens may experience mobility constraints, health concerns, and reduced capacity to participate in lengthy trainings, travel to shared facilities, or adopt new technologies and farming practices. These limitations may affect their ability to access project services and benefit from livelihood enhancement opportunities.
82. Indigenous Peoples (IPs) are present in several project areas, particularly in Talakag, Midsayap and Paquibato District where the potential INVEST sites are located within existing CADT areas. All members of TFAC belong to the Talaandig-Kalatunganon Tribes, while 23% of MUFF members and 9% of CMPC members are IPs. FPIC and coordination with the National Commission on Indigenous Peoples (NCIP) will be required for activities located within ancestral domains to ensure protection of indigenous rights, cultural heritage, and sacred sites. Project activities conducted without culturally appropriate engagement methods could limit IP participation in trainings and planning activities. IP members living in remote or upland areas may likewise face barriers due to distance, transportation costs, language differences, or limited access to information regarding facility use and scheduling.
83. The youth comprised about 27.9 to 30.1% of the household population in the five project sites in 2020. Youth participation in the cooperatives is relatively limited. Youth members comprise 24% of TFAC, 16% of CMPC, and 10% of LOBACO, while SIFARBCO has no members within the youth age bracket. This suggests a generally aging farming population and highlights the importance of engaging younger farmers in climate-resilient agriculture and value-chain development initiatives. Limited involvement of younger members may reduce the uptake of innovative technologies, digital tools, and climate-resilient agricultural practices promoted by the Project. Youth may also be underrepresented in cooperative leadership and business planning activities, limiting opportunities for intergenerational knowledge transfer and long-term sustainability of project interventions.
84. To address these risks, the Project will implement inclusive stakeholder engagement and beneficiary selection processes, ensure representation of vulnerable groups in consultations and decision-making activities, provide culturally appropriate engagement with Indigenous Peoples, and adopt gender-responsive and disability-inclusive approaches in project implementation. The Project-level GRM will also be made accessible to all stakeholders, including vulnerable and marginalized groups, to ensure that concerns are promptly addressed and that project benefits are equitably distributed. The Project adopts inclusive beneficiary selection procedures, will conduct consultations at times and locations convenient for women and vulnerable groups, provide advance notice of meetings and trainings, ensure participation of Indigenous Peoples and marginalized groups in decision-making processes.

3.4 Potential Impacts related to Human Rights (AF Principle 4)

85. Human rights are the fundamental rights and freedoms inherent to all people regardless of nationality, ethnicity, gender, religion, age, disability, socioeconomic status, or other characteristics. As recognized by the United Nations and the Universal Declaration of Human Rights, these include, among others, the rights to health, food, water, work, non-discrimination, participation in decision-making, access to information, cultural identity, and access to effective remedies. Development projects are expected to respect, protect, and promote these rights by ensuring equitable access to opportunities and benefits, meaningful participation of affected stakeholders, and protection from discrimination and adverse impacts.
86. Consultation with the cooperatives indicate that all cooperative members including women, IPs, senior citizens and youths generally have access to land, livelihoods, agricultural resources, and participation in cooperative activities. Membership in the cooperatives is open to qualified individuals regardless of gender, ethnicity, religion, or social status. Several cooperatives also include Indigenous Peoples among their membership, particularly in Talakag, Midsayap, and Paquibato District, where ancestral domains and Indigenous communities are present. Women actively participate in farming, post-harvest activities,

cooperative operations, and household decision-making. Existing cooperative structures provide mechanisms for member participation in meetings and decision-making processes.

87. CMPC also employs hired and seasonal workers in its mango plantation. While no significant labor rights issues were reported, agricultural work exposes workers to occupational hazards such as pesticide exposure, heat stress, and injuries from farm tools and equipment. Some cooperatives also have limited systems for managing used pesticide and fertilizer containers, which may increase health and environmental risks. These conditions are relevant to human rights as they relate to the rights to health, safe and healthy working conditions, just and favorable conditions of work, and equal treatment of workers.
88. The Project does not involve activities that would intentionally restrict access to land, water, livelihood resources, public services, cultural practices, or other fundamental rights. Nor does it support activities that would result in forced labor, child labor, discrimination, involuntary resettlement, or violations of the rights of Indigenous Peoples.
89. The Project is not expected to cause direct human rights violations. However, risks may arise if project benefits, training opportunities, shared facilities, and grant-supported investments are distributed inequitably, if consultations are not meaningful, or if grievances are not effectively addressed. Potential disputes related to land access, use of demonstration farm plots, access to shared facilities, allocation of project-supported investments, working conditions, and community-worker interactions may likewise affect the enjoyment of rights if not properly managed. Agricultural intensification and increased employment opportunities may further increase occupational health and safety risks if additional workers are engaged or agrochemical use increases without corresponding improvements in worker protection measures.
90. To address these risks, the Project will adopt a rights-based approach throughout implementation. Stakeholder engagement, beneficiary selection, access to project services, and allocation of project benefits will be undertaken in a transparent, inclusive, and non-discriminatory manner. The Project will ensure equal opportunities for participation regardless of gender, ethnicity, age, disability, socioeconomic status, or Indigenous identity. Consultations will be conducted in a culturally appropriate manner and will seek the meaningful participation of affected communities, including IPs, women, and other vulnerable groups. The Project will also promote fair and non-discriminatory labor practices, safe and healthy working conditions, occupational health and safety training, provision of appropriate personal protective equipment, and accessible grievance mechanisms for workers and communities.
91. The Project-level GRM will be made accessible to all stakeholders to ensure that complaints, concerns, and allegations of rights violations can be safely, confidentially, and promptly addressed without retaliation. Regular monitoring of beneficiary selection, access to facilities, labor conditions, consultation processes, and grievance management will be undertaken throughout implementation to ensure compliance with human rights principles, including non-discrimination, equality, participation, transparency, accountability, and respect for the dignity and rights of all affected persons.

3.5 Potential Impacts related to Gender Equality and Women's Empowerment (AF Principle 5)

92. Women play a significant role in the agricultural value chains targeted by the Project. Consultations conducted with the cooperatives revealed that, in addition to farming activities, women are primarily responsible for household chores, childcare, school-related activities of children, and, in some cases, marketing and selling agricultural products. Men, on the other hand, are generally responsible for physically intensive farm activities such as land preparation, harvesting, hauling, and farm labor. In MUFF, respondents estimated that approximately 70% of household responsibilities are performed by women, while 70% of farm-related work is undertaken by men.
93. Consultations with SIFARBCO, CMPC, and TFAC indicated that women sometimes find it difficult to attend trainings and meetings due to household and childcare responsibilities. Members of MFU noted that women are often the ones available to attend trainings because men remain engaged in farm work, although childcare arrangements may still be necessary. Respondents from MFU highlighted the importance of providing advance notice and scheduling flexibility to enable women's participation, particularly during peak farming seasons and school periods.
94. Consultations also identified concerns among women regarding the health risks associated with exposure to synthetic fertilizers and pesticides. Women involved in planting, harvesting, sorting, processing, and marketing activities may experience different occupational health risks and exposure pathways compared

to men. Furthermore, project interventions that increase production, processing, marketing, or cooperative management responsibilities could inadvertently increase women's unpaid workload if responsibilities within households and cooperatives are not equitably shared.

95. There is a risk that women may be underrepresented in technical trainings, business planings, facility management committees, and decisions regarding the operation and use of shared facilities if targeted measures are not implemented. Although women play significant roles in agricultural production, post-harvest processing, marketing, and household financial management, their participation in decision-making processes may be constrained by household responsibilities, childcare obligations, and prevailing gender norms. As a result, women may have limited influence over decisions regarding the operation, scheduling, maintenance, and allocation of project-supported shared facilities.
96. There is also a potential risk of gender-based violence (GBV), sexual exploitation and abuse (SEA), and sexual harassment (SH) during project implementation. These risks may arise during trainings, workshops, consultations, travel to and from project activities, use of shared facilities, and interactions with project workers, contractors, service providers, and other participants. Such incidents may discourage women from participating in project activities and accessing project benefits. Appropriate preventive measures, including codes of conduct, awareness programs, gender-sensitive consultation processes, and confidential grievance mechanisms, will therefore be required to ensure a safe, respectful, and inclusive environment for women throughout project implementation.
97. The Gender Assessment and Gender Action Plan (GAP) shall be implemented alongside the ESIA, ESMP, and ESMF to ensure that project interventions promote gender equality and women's empowerment. Gender screening shall be integrated into stakeholder engagement, beneficiary selection, business planning, CRA demonstration farms, access to shared facilities, and grant allocation processes. Specific measures shall include:
 - Establishing targets for women's participation in consultations, trainings, leadership positions, and project-supported enterprises;
 - Ensuring equitable access of women to project resources, grants, financing opportunities, climate information services, market linkage activities, and shared facilities under PROCESS;
 - Promoting women's representation in cooperative leadership structures, facility management committees, and project decision-making bodies;
 - Monitoring women's participation, leadership roles, benefit uptake, utilization of shared facilities, and workload impacts using sex-disaggregated indicators;
 - Promoting safe and sustainable agricultural practices, including reduced reliance on synthetic pesticides and fertilizers, and providing training on the safe handling and use of agricultural inputs;
 - Conducting awareness activities on gender equality, shared household responsibilities, and women's economic empowerment;
 - Implementing GBV/SEA/SH prevention and response measures, including codes of conduct for project workers, contractors, and service providers;
 - Ensuring that the project-level GRM is accessible, gender-responsive, and capable of handling gender-related complaints in a safe and confidential manner.

3.6 Potential Impacts related to Core Labour Rights (AF Principle 6, OS 8)

98. Most of the consulted cooperatives are composed of smallholder farmers who cultivate and manage their own farms, with farming activities largely undertaken by cooperative members and their households. Family labor is commonly utilized, with women and men sharing responsibilities in farm production, post-harvest activities, and marketing. As such, the Project is not expected to generate a large hired workforce within most cooperatives. An exception is CMPC, which employs hired workers for the operation and maintenance of its mango plantation. These workers are engaged in various activities such as land preparation, farm maintenance, harvesting, and other plantation-related tasks. CMPC may also hire workers from nearby communities, including Indigenous Peoples and other vulnerable groups, depending on labor requirements and workforce availability. As confirmed by the cooperatives consulted, there were no reported cases of child labor, forced labor, discrimination, or labor disputes within the participating cooperatives

99. The Project will involve construction and installation of shared facilities, operation and maintenance of processing and storage facilities and demonstration farming activities. These activities may expose workers to risks related to informal employment arrangements, discrimination, child labor, forced labor, excessive working hours, inadequate contractor oversight, and limited access to worker grievance mechanisms. The risks are particularly relevant to contractors and subcontractors engaged in the construction and installation of PROCESS facilities, including cold storage facilities, processing equipment, warehouses, and associated infrastructure. Contractors and subcontractors may also rely on temporary, seasonal, or casual labor, increasing the risk of non-compliance with labor standards if appropriate oversight mechanisms are not established.
100. There is also a risk that vulnerable workers, including women, IPs, seasonal laborers, migrant workers, and young workers, may experience unequal treatment, discrimination, wage disparities, or limited access to grievance mechanisms if labor management procedures are not consistently applied.
101. While the Project does not anticipate the use of child labor or forced labor, agricultural activities in rural areas may involve family labor arrangements where children occasionally assist in farming activities. Without adequate monitoring and awareness raising, there is a risk that project-supported activities could inadvertently involve hazardous work performed by minors.
102. To ensure compliance with the AF ESP and on Core Labour Rights, the Project will implement measures to safeguard the rights, welfare, and safety of all workers engaged under project-supported activities. All participating cooperatives, contractors, and service providers will be required to comply with applicable Philippine labor laws, occupational safety and health regulations, and the core labor standards of the International Labour Organization (ILO). Child labor, forced labor, discrimination, sexual harassment, and other forms of exploitation or abusive labor practices will be strictly prohibited throughout project implementation.
103. Labor and occupational health and safety requirements will be incorporated into contractor and subcontractor agreements, and contractor screening and monitoring procedures will be established to verify compliance with labor standards, wage requirements, working conditions, and occupational safety obligations.
104. The Project-level GRM will be accessible to direct workers, contracted workers, seasonal workers, facility operators, and other project-related personnel to enable the confidential reporting and timely resolution of labor-related concerns. The Project will also undertake periodic monitoring of working conditions, wages, working hours, occupational health and safety performance, and contractor compliance throughout implementation. In addition, awareness on labor rights, occupational safety, non-discrimination, and worker protection will be integrated into cooperative strengthening and beneficiary capacity-building activities to promote a safe, fair, and inclusive working environment for all workers, including women, Indigenous Peoples, and other vulnerable groups.

3.7 Potential Impacts related to Indigenous Peoples (AF Principle 7, OS 4)

105. The Project will be implemented in several municipalities where IPs are present and where ancestral domains have been formally recognized CADTs. Midsayap has one CADT covering 7,829 ha belonging to the Erumanen Ne Menuvu ICC. Talakag has one CADT occupied by the Talaandig-Kalatunganon Tribes under the MILALITTRA indigenous political structure. Compostela contains two CADTs belonging to the Mandaya, Mansaka, Dibabawon, and Mangguwangan Tribes. Santo Tomas also contains CADTs of the Ata-Manobo and Ata Tribes. In Davao City, the Paquibato District is covered by the CADT of the Ata Tribes, encompassing approximately 87,665 ha. Based on available NCIP ancestral domain maps, the proposed INVEST sites in Talakag and Paquibato are located within ancestral domains, while portions of the candidate sites in Midsayap may overlap with the CADT area and require further validation with NCIP Region XII. The proposed sites in Compostela and Santo Tomas are located outside but in proximity to ancestral domains. In addition, CMPC, TFAC, and MFU have IP members and/or workers, with all members of TFAC belonging to the Talaandig-Kalatunganon Tribe.
106. The Project is expected to generate significant benefits for IP communities through both the PROCESS and INVEST components. Shared facilities such as processing centers, storage facilities, irrigation systems, equipment, and other common-use infrastructure will be accessible to IP cooperatives and farmers. These interventions are expected to improve productivity, reduce post-harvest losses, increase product quality, strengthen market access, support value-adding activities, and enhance climate resilience. Eligible IP cooperatives and farmers may also benefit from the demo-farming under the INVEST component.

107. However, project activities within or near ancestral domains may pose risks if not planned and implemented in a culturally appropriate manner. The establishment of facilities within ancestral domains could potentially affect areas of cultural, spiritual, or historical significance, including sacred sites, burial grounds, and other culturally important locations. Construction activities may also temporarily affect traditional land uses, access to natural resources, customary practices, and community dynamics. Furthermore, project interventions could inadvertently conflict with customary governance systems, traditional resource management practices, and Indigenous Knowledge Systems and Practices (IKSPs) if these are not adequately considered during project design and implementation.
108. There is also a risk that IP communities and IP cooperative members may not be meaningfully involved in project planning, decision-making, management of shared facilities, and benefit-sharing arrangements if engagement processes are not conducted in a culturally appropriate manner consistent with customary practices.
109. As some IP members may participate in construction activities, farming operations, facility management, and cooperative enterprises, labor-related risks may also arise, including unsafe working conditions, inadequate occupational health and safety measures, unequal access to employment opportunities, discrimination, excessive workloads, and limited awareness of workers' rights and grievance mechanisms. Communication barriers and limited participation in labor-related decision-making may further increase the vulnerability of IP workers if culturally appropriate information disclosure is not provided.
110. To address these risks, the Project will undertake coordination and site validation with the National Commission on Indigenous Peoples (NCIP) to confirm the location of project facilities relative to CADT boundaries and to ensure that sacred sites, burial grounds, cultural heritage resources, and other culturally significant areas are not affected. For project activities located within ancestral domains, particularly in Talakag and Paquibato, Free, Prior and Informed Consent (FPIC) shall be secured in accordance with the Indigenous Peoples Rights Act (IPRA) and NCIP guidelines. A Certificate of Precondition (CP) shall also be obtained from the appropriate NCIP Regional Office before project implementation.
111. To complement the FPIC, an Indigenous Peoples Plan (IPP) will be prepared for project activities that may affect Indigenous Peoples or are located within ancestral domains. The IPP will include measures to ensure meaningful participation, culturally appropriate engagement, equitable access to project benefits, protection of cultural heritage, benefit-sharing arrangements, and culturally appropriate grievance mechanisms. The IPP will also provide guidance to ensure that the Project will implement fair and non-discriminatory labor practices, provide adequate occupational health and safety measures and ensure equitable access to employment opportunities for IP workers and communities.
112. These measures will help ensure that IP communities are able to participate in and benefit from the Project while safeguarding their rights, cultural heritage, livelihoods, and traditional institutions.

3.8 Potential Impacts related to Involuntary Resettlement (AF Principle 8, OS 3)

113. While the Project excludes subprojects that would result in involuntary land acquisition, physical displacement, economic displacement, or involuntary resettlement, there remains a risk that some proposed sites may be located on land currently being utilized for farming or other livelihood activities. For example, the proposed INVEST site of LOBACO is currently being utilized for corn farming activities by cooperative members. Once the demo-farming is implemented, access to the affected portion of farmland for corn cultivation will no longer be available due to its conversion into project facilities and infrastructure. This may result in reduction of cultivable agricultural area, crop production, and corresponding income among members currently utilizing the site for farming activities. Similarly, one of the candidate PROCESS sites in Midsayap, the former public market, was observed to host existing informal economic activities such as small-scale vendors. Development of the site without adequate assessment and planning could disrupt these activities and affect the income of individuals currently dependent on them.
114. Careful site selection and validation are necessary to ensure that project activities do not adversely affect existing land users, farmers, vendors, or other livelihood groups. Site selection should prioritize land that is already owned, controlled, or voluntarily provided by the cooperative and LGUs and is free from competing land uses, livelihood activities, and occupancy issues. Site selection should be undertaken through participatory consultations with cooperative members, affected land users, and local stakeholders to identify locations that will not result in the loss of productive assets, crops, income sources, or access

to resources. Where multiple site options are available, preference should be given to locations that avoid or minimize impacts on existing livelihoods and economic activities. Documentation of land ownership, land use agreements, and voluntary land use arrangements should be secured prior to project implementation.

115. Any proposed subproject that would require involuntary land acquisition, physical displacement, loss of shelter, loss of productive assets, or disruption of livelihoods shall not be eligible for financing under the Project in accordance with the established exclusion criteria and the requirements of the Project. Where land is voluntarily made available by cooperatives, LGUs, or other entities, the Project will ensure that such arrangements are properly documented, free from coercion, and do not result in adverse impacts on affected individuals or households. Due diligence on land ownership, land use, occupancy, and livelihood conditions will be undertaken prior to implementation to confirm that project activities will not result in involuntary resettlement, economic displacement, or legacy land issues

3.9 Potential Impacts related to Protection of Natural Habitats (AF Principle 9, OS 2)

116. Baseline assessment indicates that the proposed PROCESS and INVEST sites are not located within legislated or proclaimed protected areas, KBAs, critical habitats, or critical watersheds. While portions of Talakag and Compostela overlap with protected areas and KBAs, the assessed project sites are located outside these environmentally sensitive areas. Similarly, although portions of Talakag and Paquibato District are covered by critical watersheds, the proposed project sites are not located within these watershed reservations.
117. Given the location of the proposed sites, significant adverse impacts on natural habitats are not anticipated. Most project interventions will be implemented within existing agricultural lands, cooperative facilities, and developed areas, thereby minimizing the need for land conversion and reducing the likelihood of direct impacts on natural habitats. However, project activities may indirectly affect natural habitats if agricultural intensification, water abstraction, or agrochemical use are not properly managed. Improper agricultural practices, excessive agrochemical use, erosion, sediment transport, and unsustainable water abstraction in these areas could adversely affect watershed functions, water quality, and aquatic habitats.
118. All consulted cooperatives currently utilize pesticides and other agricultural inputs as part of their farm management practices. Particular attention is required for the mango plantation operated by CMPC in Midsayap and the banana production areas of SIFARBCO in Santo Tomas, where there is a potential risk of maladaptation due to excessive reliance on agrochemicals. Although the pesticides utilized are registered and permitted for use in the Philippines, excessive, improper, or indiscriminate application may generate agrochemical runoff and leaching that could affect soil quality, surface water, groundwater, and downstream aquatic ecosystems. While the proposed project sites are not located within critical watersheds, portions of Talakag and Paquibato District are covered by watershed reservations.
119. The construction of the PROCESS facilities may require site preparation, excavation, and earthmoving activities. These activities may result in the removal of vegetation, disturbance of wildlife, soil erosion, sedimentation, and temporary disruption of terrestrial and aquatic species. Increased human presence, noise, vehicle movement, and construction activities may also affect wildlife behavior and habitat use, particularly in areas adjacent to forestlands, streams, watershed areas, and other ecologically sensitive environments. Improper management of construction wastes, wastewater, fuel, lubricants, and hazardous materials could further affect nearby ecosystems and species through contamination of soil and water resources.
120. The Project is designed to promote climate-resilient and sustainable agricultural practices. One of the eligible demonstration interventions is the implementation of Integrated Pest Management (IPM), which emphasizes pest monitoring, biological control, cultural management practices, and reduced reliance on chemical pesticides. The Project will also promote good agricultural practices, soil and water conservation measures, efficient irrigation systems, agroforestry, and the use of organic inputs. These interventions are expected to reduce pressure on natural resources, minimize agrochemical contamination, improve ecosystem health, and strengthen the resilience of agricultural landscapes and associated natural habitats.
121. To further protect natural habitats, erosion and sediment control measures will be implemented during construction and operation, while proper waste management procedures will be adopted to prevent contamination of surrounding land and water resources.

122. Any subproject that would result in the conversion, degradation, fragmentation, or encroachment of critical habitats, protected areas, KBAs, critical watersheds, or other ecologically sensitive areas shall not be eligible for financing under the Project, in accordance with the AF ESP and UNIDO OS. All proposed subprojects will undergo environmental and social screening during project preparation to verify that they are located outside critical and protected natural habitats and will not adversely affect ecological functions, habitat integrity, watershed values, or conservation objectives. Site selection will prioritize previously disturbed, agricultural, or developed areas to avoid impacts on natural habitats and ensure compliance with the Project's environmental safeguards requirements.

3.10 Potential Impacts related to Conservation of Biological Diversity (AF Principle 10, OS 2)

123. The proposed project sites in Midsayap, Talakag, Compostela, and Santo Tomas are situated within existing agricultural and built-up areas, while the proposed INVEST site in Paquibato District is located within the Forest and Forestland Zone of Davao City. Although the Project is not expected to result in significant biodiversity impacts due to its location in predominantly modified landscapes, project activities may still pose localized risks to biological diversity if not properly planned and managed.
124. Construction activities associated with the establishment of demonstration farms, processing facilities, and other project-related infrastructure may result in localized impacts on terrestrial flora and fauna. Site preparation activities may remove vegetation cover and temporarily alter habitat conditions for wildlife. Soil erosion and sediment transport resulting from construction activities may further affect adjacent vegetation communities and reduce habitat quality in nearby terrestrial ecosystems. Increased noise, dust, vibration, human presence, and vehicle movement during construction may disturb wildlife, causing temporary displacement, changes in movement patterns, or avoidance of the area.
125. Vegetation clearing and tree cutting shall be avoided to the greatest extent practicable. Where clearing is unavoidable, the Project shall minimize the area of disturbance. All tree-cutting activities shall comply with applicable DENR regulations and permit requirements, and tree replacement or compensatory planting measures required under the Tree Cutting Permit (TCP) shall be implemented. Required tree replacement and habitat rehabilitation measures shall likewise be implemented.
126. Biodiversity risks may also arise during the operational phase through agricultural intensification and farm management practices. While the pesticides utilized by the cooperatives are registered and permitted for use in the Philippines, excessive, improper, or indiscriminate application, particularly in mango and banana plantations, may adversely affect non-target organisms, including pollinators, beneficial insects, birds, aquatic organisms, amphibians, and soil microorganisms that contribute to ecosystem functioning and agricultural productivity. Agrochemical runoff and leaching may reduce water quality and affect aquatic biodiversity. Unsustainable agricultural practices, erosion, sediment transport, monocropping, or the introduction of unsuitable crop varieties may also reduce agro-biodiversity and ecosystem resilience.
127. Biodiversity risks may arise during project operation if increased agricultural production leads to excessive use of pesticides and fertilizers, monocropping, unsustainable water use, or the introduction of unsuitable crop varieties. These practices may affect pollinators, beneficial organisms, aquatic ecosystems, and overall agro-biodiversity.
128. The Project promotes biodiversity-friendly agricultural practices through the implementation of IPM, crop diversification, agroforestry, soil and water conservation, and the responsible use of agrochemicals. Subprojects that may introduce or use potentially invasive, non-indigenous alien species and will result in increased pesticide, fertilizer, or chemical dependency without a credible IPM will not be funded by the Project. All CRA demonstration farms, value-chain interventions, and grant-supported adaptation packages will undergo biodiversity screening prior to approval to ensure that they do not adversely affect native species, ecosystem services, or biodiversity values. These measures will help ensure that project activities contribute to agricultural productivity and climate resilience while maintaining and enhancing biological diversity within the project areas.

3.11 Potential Impacts related to Climate Change (AF Principle 11)

129. The primary objective of the Project is to strengthen climate resilience and adaptive capacity among vulnerable farming communities through the adoption of climate-resilient agricultural practices, improved post-harvest systems, enhanced market access, and climate-informed business planning. As such, the Project is expected to contribute positively to climate change adaptation. However, there remains a risk of maladaptation if project-supported interventions are not appropriately designed, located, or managed in consideration of current and future climate conditions.

130. The geohazard and climate screening conducted identified susceptibility to flooding and rain-induced landslides in several project areas. Parts of Midsayap are exposed to flooding associated with river systems and low-lying agricultural lands, while portions of Talakag and Paquibato District are susceptible to rain-induced landslides due to their upland terrain and steep slopes. Increasing rainfall intensity associated with climate change may further exacerbate these hazards. Consequently, there is a risk that infrastructure investments such as cold storage facilities, processing centers, warehouses, demonstration farms, and other agricultural facilities could be adversely affected if sited in hazard-prone areas or designed without adequate consideration of future climate conditions.
131. Climate-related hazards may affect the long-term sustainability and operational efficiency of project-supported facilities and agricultural activities. Extreme weather events such as typhoons, intense rainfall, flooding, prolonged drought, landslides, and increasing temperatures may affect agricultural productivity, damage infrastructure, disrupt transportation and market access, reduce water availability, and affect the operation of processing and storage facilities. Water resources used for irrigation and agricultural production may become increasingly vulnerable to seasonal variability, prolonged dry periods, and changing rainfall patterns.
132. To minimize climate-related risks and avoid maladaptation, climate resilience considerations shall be integrated into the planning, design, construction, operation, and maintenance of all project-supported activities and facilities. Specific measures shall include:
- Conducting climate risk screening for all proposed subprojects, including assessment of exposure to flooding, landslides, drought, extreme rainfall, and other climate-related hazards;
 - Avoiding the siting of facilities and demonstration farms in areas identified as highly susceptible to flooding, rain-induced landslides, erosion, or other significant climate hazards;
 - Incorporating climate-resilient design measures into PROCESS facilities, including flood protection, adequate drainage systems, slope stabilization measures, erosion control structures, and climate-resilient construction standards;
 - Utilizing hazard and climate information, including HazardHunterPH and available climate projections, during site selection and facility design;
133. Although the Project is not expected to generate significant greenhouse gas (GHG) emissions, localized emissions may occur during construction and operation. Construction activities associated with the rehabilitation, upgrading, or construction of aggregation centers, storage facilities, drainage systems, access routes, and other infrastructure will require the use of construction equipment, vehicles, and construction materials such as concrete, steel, and aggregates, resulting in temporary GHG emissions from fuel consumption.
134. During operation, cooling-as-a-service infrastructure such as modular cold rooms, walk-in cold storage facilities, cold cabinets, pre-cooling systems, temperature and humidity control systems, and backup power units may increase electricity consumption and associated indirect greenhouse gas emissions depending on the energy source used. Similarly, processing activities such as drying, dehydration, and value-addition operations may further increase energy demand depending on the technology and energy source utilized. Although these facilities are generally small- to medium-scale, cumulative energy consumption across multiple project sites may contribute to indirect greenhouse gas emissions.
135. Refrigeration and cooling systems may also contribute to climate impacts if refrigerants with high global warming potential are used or improperly managed.
136. Agricultural production associated with demonstration farms and value-chain activities may also contribute to GHG emissions through the use of fertilizers, fuel-powered equipment, irrigation systems, and organic waste decomposition. However, these emissions are expected to be relatively small in scale and localized.
137. Transportation and logistics activities associated with aggregation, storage, processing, and marketing of agricultural products may also generate emissions from the movement of products, raw materials, equipment, and personnel. Additional emissions may arise from the operation of generators and backup power systems during power interruptions, particularly in remote areas where grid reliability may be limited.

138. To minimize GHG emissions during operation, the Project will promote the use of energy-efficient equipment and technologies for cooling, storage, processing, and value-addition activities. Where technically and financially feasible, renewable energy systems such as solar-powered or hybrid energy systems will be incorporated into project-supported facilities to reduce reliance on grid electricity and fossil fuel-based energy sources. Energy-efficient cold storage facilities, cooling systems, dryers, pumps, lighting systems, and processing equipment will be prioritized during facility design and procurement.
139. Refrigeration and cooling systems shall utilize refrigerants with low global warming potential (GWP), where available and feasible, and shall be subject to regular inspection, maintenance, and leak detection programs to prevent refrigerant releases. Proper handling, storage, recovery, and disposal of refrigerants shall be implemented in accordance with applicable regulations and manufacturer requirements.
140. To reduce emissions associated with transportation and logistics, aggregation, storage, and processing facilities will be strategically located to minimize transport distances where feasible.

3.12 Potential Impacts related to Pollution Prevention and Resource Efficiency (AF Principle 12, OS 5, OS 9)

141. All cooperatives consulted utilize pesticides, fertilizers, and other agrochemical inputs as part of their existing farming practices. A key concern relates to the mango plantation operated by CMPC in Midsayap and the banana production areas of SIFARBCO in Santo Tomas, where relatively high agrochemical use is observed due to the susceptibility of these crops to pests and diseases and the need to maintain product quality and yields. While the agrochemicals used are registered and permitted for use in the Philippines, excessive, frequent, or improper application may result in the accumulation of pesticide residues in soils and their transport to nearby water bodies through runoff and leaching. This may contribute to soil and water contamination and adversely affect aquatic ecosystems and downstream users.
142. Consultations further indicate that some cooperatives do not consistently implement proper storage, handling, and disposal practices for used pesticide and fertilizer containers in accordance with Philippine hazardous waste management requirements. Improper handling, reuse, or abandonment of empty containers may result in the release of residual chemicals into the environment, posing risks to soil quality, surface water, groundwater, human health, and surrounding communities. If agricultural production is intensified without corresponding improvements in agrochemical management and waste handling practices, the volume of chemical inputs and associated hazardous wastes may increase, resulting in greater risks of environmental pollution and resource degradation.
143. Water resource impacts also occur in cooperatives that do not have adequate irrigation systems or water management practices. Inefficient irrigation methods, unregulated water abstraction, leaking distribution systems, and poor water-use efficiency may result in excessive water consumption and increased pressure on local water resources, particularly during dry periods. In areas dependent on surface water or groundwater sources, unsustainable water use may reduce water availability for downstream users and surrounding ecosystems.
144. Due to the lack of post-harvest facilities, some cooperatives experience spoilage and wastage of agricultural produce. Unsold or rejected produce is often used as animal feed, composted, or left to decompose. These losses reflect inefficient use of resources such as water, fertilizers, pesticides, energy, and labor used during production. Improper management of spoiled produce may also contribute to odor, pest infestation, and localized pollution.
145. The proposed PROCESS facilities are expected to generate significant positive impacts by improving resource efficiency, reducing post-harvest losses, and minimizing waste generation across agricultural value chains. Climate-resilient infrastructure, modular storage systems, cooling facilities, aggregation equipment, and value-addition technologies can reduce spoilage of fruits and vegetables, improve product quality, extend shelf life, and reduce the amount of agricultural produce that is discarded. Resource-efficient technologies such as water-saving washing systems, energy-efficient dryers and cooling systems, composting equipment, residue recovery systems, and renewable energy applications may further reduce water consumption, energy demand, and waste generation. The production of value-added products such as dried fruits, chips, flour, powders, compost, biofertilizers, and fibre products may also improve resource utilization by converting agricultural residues and surplus produce into marketable products rather than disposing of them as waste.
146. However, the construction and operation of project-supported facilities may generate pollution and increase resource consumption if not properly managed. Construction activities associated with

aggregation centers, storage facilities, drainage systems, access routes, and utility installations may generate construction debris, excavated materials, dust, noise, wastewater, and hazardous wastes such as used oil, fuel residues, paint containers, and contaminated materials. Improper disposal of these wastes may affect soil quality, surface water, groundwater, and nearby communities.

147. During operation, cooling facilities, cold storage units, pre-cooling systems, processing equipment, water pumps, ventilation systems, electrical systems, and backup power units may increase electricity and fuel consumption. Refrigeration systems may also pose pollution risks through refrigerant leakage if not properly maintained. Processing and value-addition activities such as washing, pulping, juicing, fermenting, drying, pickling, bottling, and packaging may generate wastewater containing organic matter, cleaning chemicals, suspended solids, oils, and food residues. If not properly managed, these waste streams may contribute to water pollution and odor generation.
148. The facilities may also generate organic wastes such as fruit peels, rejected produce, processing residues, wastewater sludge, and agricultural by-products. Packaging materials including plastics, cartons, bottles, labels, and other consumables may contribute to solid waste generation. Increased production activities may further increase water demand for washing, processing, sanitation, and cooling operations. Inadequate management of these wastes and resource requirements could reduce operational efficiency and contribute to environmental pollution.
149. To address these risks, all facilities shall incorporate pollution prevention and resource efficiency measures into their design and operation. These include waste segregation, recycling, composting, residue recovery, proper wastewater management, water conservation measures, energy-efficient equipment, preventive maintenance programs, and the use of renewable energy technologies where feasible. Hazardous materials, fuels, oils, chemicals, and refrigerants shall be properly stored, handled, and disposed of in accordance with applicable regulations. Through these measures, the Project is expected to improve productivity and value addition while minimizing pollution and promoting the efficient use of water, energy, raw materials, and agricultural resources.
150. The Project will also strengthen the capacity of cooperatives and facility operators on proper agrochemical management, hazardous waste management, and resource-efficient production practices. Training will be provided on the safe handling, storage, transport, and disposal of pesticides, fertilizers, used chemical containers, fuels, oils, and other hazardous materials in accordance with Philippine regulations.
151. To manage these potential impacts, the Project shall ensure the implementation of the ESMP that include measures on pollution prevention, waste and wastewater management, erosion and sediment control, sustainable water use, energy efficiency, proper handling and storage of fuels and chemicals, integrated pest management, occupational health and safety, emergency preparedness and response, and regular environmental and social monitoring throughout project implementation and operation.

3.13 Potential Impacts related to Public Health (AF Principle 13, OS 10)

152. The Project is expected to generate substantial public health and well-being benefits by strengthening the resilience of farming households and improving food security, livelihood stability, and access to climate adaptation services. At the household level, improved access to climate-resilient agricultural practices, technical assistance, climate information, financial readiness support, and market opportunities may reduce vulnerability to climate-related shocks and lessen dependence on coping mechanisms such as distress selling, high-interest borrowing, or repeated investments in unsustainable farming practices. These benefits are particularly important for households that are highly dependent on climate-sensitive agricultural production and have limited financial capacity to recover from climate-related losses.
153. At the cooperative and value-chain level, the establishment of ADAPT Centres and shared post-harvest facilities is expected to improve food quality, reduce post-harvest losses, minimize spoilage and contamination, and strengthen food handling practices. Improved aggregation, storage, cold-chain facilities, processing, quality control, and value-addition systems may contribute to improved food safety and nutrition outcomes by reducing deterioration of agricultural products and increasing the availability of safe, marketable food products. The Project may also support circular economy approaches through composting, residue recovery, and productive use of agricultural by-products, reducing waste accumulation and associated public health concerns.
154. Several public health and safety risks may arise during project implementation and operation. Construction and rehabilitation activities associated with climate-resilient infrastructure, storage facilities, processing centers, and supporting infrastructure may expose workers and nearby communities to

temporary risks from dust generation, noise, traffic movements, excavation works, construction waste, and accidents involving vehicles and equipment. Temporary restrictions to access routes and community facilities may also occur during construction activities. However, construction-related impacts are expected to be temporary, localized, and short-term in nature, occurring only during the construction period and ceasing upon completion of the works.

155. At the farm level, agricultural workers may be exposed to health risks associated with the handling and application of pesticides, fertilizers, and other agricultural inputs and the farming activities. Site-specific consultations and field observations conducted during the ESIA mission identified several labor-related risks associated with the target agricultural value chains. In Midsayap, mango production was identified as having significant occupational health and safety risks due to the reliance on manual climbing of tall mango trees during harvesting operations. Farmers and hired workers often perform harvesting activities at considerable heights with limited use of fall protection systems, exposing them to risks of falls, serious injuries, and fatalities. Mango production also involves substantial use of pesticides and other agricultural chemicals for pest and disease management, exposing workers to risks associated with improper handling, mixing, application, storage, and disposal of agrochemicals. Long-term exposure may result in adverse health effects, particularly among workers with limited access to training, PPE, and health services.
156. Similarly, consultations in Sto. Tomas highlighted labor risks associated with banana production. Banana farming requires regular pesticide and fertilizer application, exposing workers to chemical hazards during spraying, mixing, transport, and storage of agricultural inputs. Harvesting activities may also involve physically demanding tasks, repetitive movements, manual handling of heavy loads, prolonged exposure to heat, and the use of sharp tools, which may increase the likelihood of occupational injuries and health problems. Workers involved in packing, sorting, hauling, and transport may likewise be exposed to ergonomic risks and accidents if appropriate safety measures are not implemented
157. Operation of cold storage facilities, processing centers, and post-harvest infrastructure may also introduce public health and safety risks if not properly managed. Potential risks include food contamination, inadequate sanitation and hygiene practices, improper wastewater management, unsafe handling of equipment, electrical hazards, refrigerant leaks, fire incidents, and accidents involving machinery and processing equipment. Workers engaged in processing, sorting, drying, packaging, storage, and transport activities may also face ergonomic risks, injuries from moving equipment, and occupational health concerns if appropriate safety measures are not implemented.
158. To protect public health and safety, the following measures shall be integrated into project design, implementation, and operation:
- Conduct site-specific environmental and social screening to identify public health and safety risks associated with each subproject;
 - Implement occupational health and safety procedures for all construction, operation, and agricultural activities;
 - Provide appropriate personal protective equipment (PPE) and safety training for workers, facility operators, and farmers;
 - Implement dust suppression, noise control, traffic management, and construction safety measures during rehabilitation and construction activities;
 - Establish safe pedestrian and vehicle access routes around construction areas and project facilities;
 - Promote IPM and climate-resilient agricultural practices to minimize reliance on hazardous pesticides and fertilizers;
 - Provide training on the safe handling, storage, transport, application, and disposal of agrochemicals;
 - Establish proper storage facilities for chemicals and agricultural inputs and ensure compliance with applicable regulations;
 - Implement food safety, sanitation, hygiene, and quality assurance procedures for all processing, storage, and value-addition activities;
 - Ensure adequate water supply, sanitation facilities, wastewater management systems, and solid waste management practices in project-supported facilities;

- Develop and implement emergency preparedness and response procedures for fires, chemical spills, equipment failures, refrigerant leaks, and other emergencies;
- Conduct regular inspection and maintenance of cold storage systems, electrical installations, processing equipment, and facility infrastructure;
- Provide first aid equipment, emergency response materials, and trained personnel at project-supported facilities;
- Ensure that women, Indigenous Peoples, and other vulnerable groups have equitable access to health and safety information, training, and protective measures;
- Establish accessible grievance mechanisms for reporting public health and safety concerns; and
- Monitor occupational and community health and safety performance throughout project implementation and operation.

3.14 Potential Impacts related to Physical and Cultural Heritage (AF Principle 14, OS 6)

- ^{159.} Based on the initial assessment, the proposed PROCESS and INVEST sites are not expected to be located within known physical cultural resources, declared archaeological sites, protected cultural properties, or recognized heritage structures. However, proposed sites in Talakag and Paquibato District are in ancestral domains where areas of cultural, spiritual, historical, or traditional significance to IPs may be present. These may include sacred sites, burial grounds, ceremonial areas, cultural landscapes, and other locations associated with IKSPs.
- ^{160.} Construction activities associated with the development of demonstration farms, and PROCESS facilities may potentially result in the accidental discovery, disturbance, or damage of previously unidentified archaeological materials, burial sites, artifacts, or culturally significant resources. Increased access, movement of workers, and project-related activities may also inadvertently affect areas traditionally used by local communities and IP groups for cultural, spiritual, or livelihood purposes if these areas are not properly identified during project planning.
- ^{161.} There is also a risk that project activities may unintentionally affect traditional practices, customary resource-use patterns, or culturally important resources if engagement with local communities and Indigenous Peoples is not conducted in a culturally appropriate and participatory manner. In areas located within ancestral domains, project activities that do not adequately consider customary governance systems, cultural protocols, and traditional knowledge may result in conflicts, loss of cultural values, or reduced community support for the Project.
- ^{162.} For activities located within ancestral domains, the requirements for FPIC and the issuance of a Certificate of Precondition shall be complied with where applicable. A Chance Find Procedure shall be incorporated into all construction contracts and implemented during earthmoving and excavation activities to ensure that any archaeological, historical, cultural, or human remains encountered are immediately protected, reported, and managed in accordance with applicable laws and safeguard requirements. Any subproject that would result in significant adverse impacts on physical cultural resources, cultural heritage, sacred sites, burial grounds, or other culturally significant areas shall not be eligible for financing under the Project.

3.15 Potential Impacts related to Land and Soil Conservation (AF Principle 15)

- ^{163.} The proposed project sites are located within existing agricultural lands where farming activities are already being undertaken. Current farming practices among the cooperatives involve land preparation, cultivation of annual and perennial crops, irrigation, and the application of fertilizers and pesticides. Baseline assessments and the Climate Risk and Vulnerability Assessment (CRVA) indicate that several project areas are exposed to climate-related hazards that may affect land and soil resources. Talakag is particularly vulnerable to soil erosion due to its steep terrain, exposure to intense rainfall, and mountainous topography. The CRVA identifies Talakag as having severe to very severe soil-loss risk, making it highly susceptible to erosion, sediment transport, and land degradation. In Compostela, farming areas are exposed to both flooding and landslide hazards, which may contribute to soil instability, erosion, and loss of productive land. Similarly, portions of Midsayap and Santo Tomas are susceptible to flooding, which may result in soil erosion, nutrient loss, waterlogging, and reduced soil productivity.
- ^{164.} Project is expected to generate significant positive impacts on land and soil conservation through the implementation of eligible CRA demonstration farm interventions under the INVEST component.

Depending on the results of the CRA business planning and subproject selection process, eligible demonstration activities in Midsayap may include IPM and improved soil nutrition management to enhance soil fertility and reduce dependence on chemical inputs. In Talakag, eligible interventions may include contour farming, soil health restoration, organic mulching, and erosion-control planting to reduce soil loss on sloping lands and improve soil structure and moisture retention. In Compostela, demonstration activities may support drainage improvements and raised-bed farming systems to address flooding and waterlogging, improve soil aeration, and enhance crop productivity. In Santo Tomas, eligible interventions may include IPM, soil and drainage improvement measures, and crop residue management practices aimed at improving soil health, reducing land degradation, and strengthening the resilience of farming systems to climate-related hazards.

165. For the PROCESS activities such as the installation of irrigation systems, construction of storage and processing facilities, and other agricultural infrastructure may result in temporary soil disturbance during construction. Site preparation, excavation, and earthmoving activities may expose soils to erosion and sediment transport if not properly managed. In addition, the INVEST may lead to changes in crop production systems and the conversion of existing farming plots into demonstration areas. While these interventions are intended to improve climate resilience and productivity, they may require careful transition and management of farming plots to avoid temporary soil degradation, disruption of existing soil management practices, or unintended impacts on land productivity.
166. To minimize potential adverse impacts, measures for erosion and sediment control, proper drainage management, stabilization and rehabilitation of disturbed areas, and appropriate management of excavated materials shall be implemented during project implementation. Demonstration farms and grant-supported adaptation packages will undergo environmental and social screening to ensure that they promote sustainable land management and do not contribute to significant soil degradation.

4 Environmental and Social Management Framework for USPs

167. Component 3 – ADAPT to Farm demo-farming are considered as USPs that are partially unidentified; specific locations identified, activity partially unidentified.
168. With this, an ESMF was formulated to guide the planning and implementation of these USPs to ensure compliance with the Adaptation Fund ESP principles, UNIDO OS, applicable national regulations, and relevant international standards.
169. This section outlines the procedures for site selection process, screening and categorizing sub-projects, identifying potential environmental and social risks and impacts, and developing appropriate mitigation and management measures to be applied once details of the USPs are finalized.

4.1 Site Selection Process

170. Site selection shall form an integral part of the environmental and social screening process. All proposed ADAPT Centres and demonstration farms shall undergo site validation to ensure that they are environmentally and socially suitable, technically feasible, climate-resilient, and consistent with the requirements of AF ESP, UNIDO Operational Safeguards, and applicable national regulations.
171. Site selection shall consider existing land use, tenure arrangements, environmental sensitivities, climate hazards, availability of utilities, accessibility, and potential environmental and social risks. Preference shall be given to previously disturbed, agricultural, built-up, or developed areas to minimize environmental impacts and avoid the conversion of natural habitats or ecologically important areas.
172. All proposed ADAPT Centres and demonstration farms shall, to the extent practicable:
 - Be located in areas that are technically feasible and suitable for the intended project activities;
 - Avoid protected areas, critical habitats, KBAs, critical watersheds, and other environmentally sensitive areas;
 - Avoid activities that would result in involuntary resettlement, physical displacement, economic displacement, or loss of livelihoods;
 - Respect Indigenous Peoples' rights, customary land uses, and cultural practices, and comply with applicable Indigenous Peoples requirements;
 - Avoid flood-prone, landslide-prone, and other high-risk hazard areas unless appropriate climate-resilient design and mitigation measures can be demonstrated;
 - Be accessible to intended beneficiaries and users, including vulnerable groups;

- Have adequate access to water supply, power, drainage, sanitation, and transportation infrastructure necessary for the proposed activity; and
- Comply with applicable national laws, local ordinances, land-use plans, and regulatory requirements.

4.2 Environmental and Social Screening Procedure

4.2.1 Screening for Exclusion List

¹⁷³. Table 4-1 presents the list of activities and subprojects that are not eligible for support under the AF. Any proposed subproject identified to fall within the exclusion list shall not be considered for funding or implementation under the Project.

Table 4-1: Screening using Exclusion List

Excluded Activities	Answer		Remarks
	Yes	No	
Is the proposed subproject likely to infringe on the protection of critical habitats?			
Will the proposed subproject introduce or use potentially invasive, non-indigenous alien species?			
Will the proposed subproject use banned pesticides and/or chemicals ¹⁵ ?			
Will the proposed subproject cause involuntary resettlement or physical and economic displacement of populations, including Indigenous Peoples?			
Is the proposed subproject likely to alter, damage, or remove any cultural heritage or protected site?			
Is the proposed subproject using forced, trafficked, or child labor?			
Is the proposed subproject employing children under 18 years old in hazardous work?			

4.2.2 Site Validation

- ¹⁷⁴. Following the preliminary identification of potential ADAPT Centre and demonstration farm locations, site validation shall be undertaken to confirm the suitability of the proposed sites and verify compliance with the Project's environmental and social requirements. Site validation shall involve site inspections, consultations with LGUs, cooperatives, landowners, and other relevant stakeholders, as well as the review of available secondary information, maps, and relevant permits or land tenure documents.
- ¹⁷⁵. The site validation process shall assess existing land use and ownership, accessibility, availability of utilities and services, environmental sensitivities, climate and geohazard conditions, and the presence of nearby communities, water bodies, environmentally sensitive areas, cultural heritage resources, or other receptors that may be affected by the proposed activity. The assessment shall also verify whether the site is located within or near protected areas, critical habitats, KBAs, critical watersheds, ancestral domains, or other areas subject to environmental or social restrictions.
- ¹⁷⁶. For demonstration farms, site validation shall also evaluate the suitability of the site for the proposed climate-resilient agriculture interventions, including existing farming practices, soil conditions, water availability, drainage, climate-related risks, and potential impacts on surrounding land uses. For ADAPT Centres, site validation shall confirm the availability of adequate space, access roads, water supply, drainage, electricity, and other infrastructure required for the operation of the proposed facilities.
- ¹⁷⁷. Particular consideration shall be given to the site's exposure and vulnerability to climate-related hazards such as flooding, drought, extreme rainfall, soil erosion, landslides, strong winds, and prolonged dry periods, as well as the ability of the proposed interventions to enhance climate resilience under these conditions. Appropriate climate-resilient design and mitigation measures shall be incorporated where risks are identified.

¹⁵ those classified as Persistent Organic Pollutants (POPs) under the Stockholm Convention, those classified by the World Health Organization (WHO) as Classes IA, IB, or II and those identified by the Fertilizer and Pesticide Authority (FPA).

- ¹⁷⁸. The results of the site validation shall be documented and used to determine whether the proposed site is eligible for project support, requires additional safeguards measures, or should be excluded from consideration due to unacceptable environmental or social risks.

4.2.3 Environmental and Social Risk Categorization

- ¹⁷⁹. Eligible subprojects will undergo further assessment to identify their potential environmental and social risks and impacts, as well as determine the appropriate risk category. The categorization process will be based on the criteria presented and will consider the nature, scale, location, sensitivity, and potential magnitude of the anticipated impacts associated with the proposed subproject.
- ¹⁸⁰. The aim of the environmental and social screening process is to determine whether, and to what extent, environmental and social review and management are required for the proposed subprojects. The screening process also allows for the early identification of projects and activities with no or minimal environmental and social concerns, such that only subprojects with potential environmental and social implications will require more detailed assessment and management measures.
- ¹⁸¹. Based on the answers provided, the type and scope of additional E&S assessments or management instruments needed will be determined. In addition to the E&S requirement listed in the table, an Indigenous Peoples Plan (IPP) should also be prepared for subprojects that will be located within ancestral domain or if the subproject may have impacts to Indigenous Peoples.

Table 4-2: Environmental and Social Screening Categorization

Criteria	Answer		Remarks	Definition	E&S Requirement
	Yes	No			
Is the proposed subproject scope including: • Actual establishment and/or relocation of a new large-scale facility such as a large-scale agro-industry manufacturing and/or processing plant? • Activities that may have potentially significant adverse impacts on physical cultural resources? • Activities that may have potentially significant adverse impacts on indigenous peoples (IP) – including those living in voluntary isolation – rights, lands, natural resources, territories, livelihoods, knowledge, social fabric, traditions, governance systems, and culture or heritage inside and/or outside the project area? • Activities that would involve large-scale natural resource extraction such as farming, irrigation • Activities that are Category A under PEISS?			If with Yes, the proposed subproject will be categorized as Category A.	Projects/programmes likely to have significant adverse environmental or social impacts that are for example diverse, widespread, and irreversible	Category A projects will be excluded for funding or implementation under the Project.
Is the proposed subproject scope including: • Energy efficiency and energy conservation • Small- and medium-scale agro-industries • Small- and medium-scale irrigation and drainage • Climate adaptation • May have potentially minor adverse impacts on physical and cultural resources			If with Yes, the proposed subproject will be categorized as Category B.	Projects/programmes with potential adverse impacts that are less adverse than Category A projects/programmes, because for example they are fewer in number, smaller in scale, less widespread, reversible or easily mitigated	Further environmental and social assessments Environmental and Social Management Plan
Is the proposed subproject scope including: • Development of feasibility studies, roadmaps, inventories, strategies, business plans, studies, etc. • Provision of policy advice, capacity building/awareness raising, etc			If with Yes, the proposed subproject will be categorized as Category C.	Projects/programmes with no adverse environmental or social impacts	None

4.2.4 Environmental and Social Assessment

182. Category B projects will require the implementation of ESMP. To identify potential environmental and social risks and impacts associated with the proposed subprojects, a set of risk identification questions based on the AF ESPP will be used. The questions presented in Table 4-3 will help determine the environmental and social issues that may arise from the proposed activities and the corresponding safeguards measures that may be required. The result of the assessment will serve as the basis for the development of the site specific ESMP. As some subprojects will be further defined during implementation, additional site-specific risks may emerge and will be assessed through continued screening and safeguards review.

Table 4-3: Environmental and Social Risk Identification Guide

No	Screening Question	Answer		If yes, provide specific project activities and potential E&S Impacts
AF Principle 1: Compliance with the Law		Yes	No	
1.1	Is there a risk that the subproject may not comply with applicable national laws or international commitments?			
AF Principle 2: Access and Equity				
2.1	Is there a risk that the activity would hinder access of any group to basic services, health facilities or services, clean water and sanitation, energy, education, housing, safe and decent working conditions or land?			
2.2	Is there a risk that the subproject benefits may not be distributed fairly among farmers, cooperatives, women, Indigenous Peoples, tenant farmers, or other affected stakeholders?			
2.3	Is there a risk that the subproject activity could worsen existing socioeconomic issues affecting farming communities, marginalized groups, or vulnerable groups?			
AF Principle 3: Vulnerable and Marginalized Groups				
3.1	Is there a possibility that the subproject would have inequitable or discriminatory impacts on vulnerable groups such as women farmers, Indigenous Peoples, elderly farmers, persons with disabilities, tenant farmers, or low-income households?			
3.2	Could the subproject activity potentially restrict marginalized groups' access to agricultural resources, livelihood opportunities, extension services, or community support programs?			
AF Principle 4: Human Rights				
4.1	Could the subproject negatively affect the human rights, livelihoods, food security, cultural practices, or economic well-being of affected farming communities?			
4.2	Could the subproject affect land tenure arrangements, customary land rights, resource use rights, or access to agricultural and natural resources?			
AF Principle 5: Gender Equality and Women's Empowerment				
5.1	Is there a risk that women farmers, women-led cooperatives, or women workers may be excluded from project planning, consultations, training, or decision-making processes?			
5.2	Could women be prevented from benefiting equally from the subproject benefits?			
5.3	Could the subproject create additional burdens, safety concerns, or other adverse impacts for women and girls?			
AF Principle 6: Core Labour Rights				
6.1	Is there a risk of non-compliance with core labour standards identified by the International Labour Organization, such as unfair labor practices, unsafe working conditions, child labor, forced labor, discrimination, or exploitation of agricultural workers?			
AF Principle 7: Indigenous Peoples				
7.1	Will the subproject activities involve indigenous peoples or be located within ancestral domain?			
7.2	Will Indigenous Peoples benefit from the agricultural project and related livelihood opportunities?			
7.3	Could the subproject negatively affect Indigenous Peoples' rights, ancestral lands, livelihoods, traditional farming systems, natural resources, or cultural practices?			
7.4	Could the activity conflict with the development priorities and resource management practices of Indigenous Peoples?			
7.5	Does the activity require culturally appropriate consultation and engagement with Indigenous Peoples, including FPIC where applicable?			
AF Principle 8: Involuntary Resettlement				
8.1	Will the subproject activity result in involuntary economic or physical displacement of households or individuals?			
8.2	Could the subproject lead to loss of crops or other livelihood assets?			
AF Principle 9: Protection of Natural Habitats				
9.1	Is the subproject located within or near protected areas, critical habitats, watersheds, forests, wetlands, or other environmentally sensitive areas?			

No	Screening Question	Answer		If yes, provide specific project activities and potential E&S Impacts
9.2	Is the subproject located within or near areas considered culturally significant or protected by Indigenous Peoples?			
9.3	Could the subproject result in habitat degradation, deforestation, wetland conversion, or impacts on ecosystem services?			
AF Principle 10: Conserving Biodiversity				
10.1	Could the subproject activities contribute to biodiversity loss or degradation of local flora and fauna?			
10.2	Could the subproject activities introduce invasive or non-native crop species, pests, or farming practices that may affect local ecosystems?			
10.3	Could the subproject activities negatively affect any endangered or critically endangered flora and fauna species?			
AF Principle 11: Climate Change				
11.1	Could the subproject activities significantly increase greenhouse gas emissions or contribute to climate-related risks through land conversion, unsustainable farming practices, or increased energy use?			
AF Principle 12: Pollution Prevention and Resource Efficiency				
12.1	Could the subproject result in inefficient or unsustainable use of resources such as fuel or water during operation?			
12.2	Is there a risk of improper, unsafe or excessive use of pesticide, herbicides, fertilizers or other agrochemicals?			
12.3	Are there risks related to the improper storage, handling, transport, or disposal of chemicals, fuels, fertilizers, or pesticides?			
12.4	Could the subproject activity involve the use of chemicals or materials containing Persistent Organic Pollutants (POPs) listed under the Stockholm Convention?			
12.5	Could the subproject activities lead to discharge of untreated wastewater to the environment?			
12.6	Is there a risk of improper management or disposal of agricultural waste or solid waste?			
12.7	Could the subproject activity generate hazardous waste that may not be safely handled or disposed of in accordance with national regulations?			
12.8	Could the subproject activity result in air pollution, dust, odor, smoke, or emissions?			
AF Principle 13: Public Health				
13.1	Could the subproject activity pose risks to public health and safety? • Exposure to pesticides • Construction-related health and safety risks • Exposure to hazardous waste			
AF Principle 14: Physical and Cultural Heritage				
14.1	Could the subproject activities damage, alter, or restrict access to cultural heritage sites, sacred areas, or areas with cultural significance?			
AF Principle 15: Lands and Soil Conservation				
15.1	Could the subproject activity contribute to soil degradation?			
15.2	Could the subproject activity result in the conversion or loss of productive agricultural land?			
15.3	Could changes in land use or farming practices negatively affect long-term soil productivity or land sustainability?			

5 ESMP for impact mitigation

5.1 Environmental and Social Risk Mitigation Measures

¹⁸³ Table 5-1 presents the ESMP matrix, which summarizes the mitigation, management, monitoring, and enhancement measures for the environmental and social risks and impacts identified under the various components and outputs of the Project in relation to the AF ESPP. The matrix identifies the corresponding indicators, means of verification and responsible parties to facilitate the effective implementation, monitoring, and reporting of safeguards measures throughout the project lifecycle. The ESMP serves as the primary tool for ensuring that potential adverse impacts are appropriately managed while maximizing the Project's environmental, social, and climate resilience benefits.

Table 5-1: Environmental and Social Management Plan

Component/Output	Environmental & Social Risks	Mitigation Measures	Technical detail	Location	Timeline and frequency	Cost for Mitigating Measure	Responsibility	AF ESP
Component 1: LEAD – Local Empowerment for Adaptation Decision Making								
Output 1.1: Local leadership, targeted FVVC actors, and existing project-site governance arrangements enabled through the LEAD to ADAPT Programme to assess climate risks, define adaptation priorities, and steer the preparation and operationalization of LCCAP linked FVVC adaptation packages	Women, Indigenous Peoples (IPs), persons with disabilities (PWDs), youth, elderly persons, and poorer farmers, may have limited participation in adaptation planning, capacity-building activities, and decision-making processes. Their priorities, traditional knowledge, adaptation needs, and perspectives may not be adequately reflected in project planning and investment prioritization, which may result in unequal access to project benefits, adaptation interventions that are less responsive to the needs of vulnerable groups and reduced effectiveness of adaptation interventions.	- Ensure inclusive, accessible, and culturally appropriate consultations, trainings, and planning activities. - Ensure venues and communication methods are accessible and appropriate for women, IPs, PWDs, and other vulnerable groups. - Promote representation of women, youth, senior citizens and IPs in adaptation committees and planning bodies. - Maintain minimum participation targets in project consultations, planning, training, and decision-making activities of at least: Female: 40%, youth: 20%, PWD: 3%, IP: 15% - Establish and maintain a Project-level Grievance Redress Mechanism (GRM).	Accessible venues with barrier-free access, appropriate seating, accessible toilets, and communication materials in local languages or culturally appropriate formats where needed. Coordinate with NCIP and IP leaders where applicable and integrate Indigenous Knowledge Systems and Practices (IKSPs) into adaptation planning. Implement the Gender Action Plan (GAP), establish the Gender, Inclusion and Social Safeguards Advisory (GASC) Implement and maintain a Project-level GRM with documented procedures for complaint receipt, registration, investigation, resolution, feedback, and monitoring.	All project sites, participating LGUs, cooperatives, and consultation venues	During project preparation and throughout implementation	Part of Output 1.1	PMU, LGUs, Cooperatives, MinDA	AF ESPP 2, 3, 4, 5, 7
Output 1.2: Mindanao FVVC Adaptation Action Plan for 2030–2050 developed, supported by regional and sectorial climate risk assessments, technology needs assessments, investment roadmaps, toolkits, sector specific guidelines, and feasibility assessments for priority fruits and crops	Future adaptation investments promoted through the Action Plan may adversely affect natural habitats and biodiversity if environmental safeguards are not incorporated into planning and investment frameworks	- Integrate environmental screening procedures, habitat protection criteria, biodiversity screening requirements, exclusion lists, ecosystem-based adaptation approaches, and sustainable agriculture principles into investment frameworks, toolkits, technical guidelines, and feasibility assessments. - Prohibit project in protected areas, critical habitats, and KBAs	Utilize GIS-based environmental screening and overlay mapping to identify protected areas, critical habitats, KBAs, forestlands, and other environmentally sensitive areas	All project sites	During the preparation of LCCAP Adaptation Packages	Part of Output 1.2	PMU, FVVC Technical Working Groups	AF ESPP 9, 10
	Proposed adaptation interventions may create maladaptation risks or fail to adequately address long-term climate risks and	Ensure climate risk assessments, technology needs assessments, feasibility studies, and investment roadmaps incorporate climate resilience, adaptation effectiveness, and maladaptation screening.	Conduct climate risk and maladaptation screening. Assess consistency with climate projections, identify potential maladaptation risks (e.g., increased vulnerability, risk transfer, unsustainable resource use, or reduced adaptive capacity). Apply	All project sites	During the preparation of LCCAP Adaptation Packages	Part of Output 1.2	PMU, FVVC Technical Working Groups	AF ESPP 11

Component/Output	Environmental & Social Risks	Mitigation Measures	Technical detail	Location	Timeline and frequency	Cost for Mitigating Measure	Responsibility	AF ESP
	resilience objectives.	Require all proposed adaptation measures, technologies, and investments to undergo climate risk, resilience, and maladaptation prior implementation	climate risk and vulnerability assessment methodologies using current and future climate scenarios.					
	Future investments may promote resource-intensive technologies, increased agrochemical use, or pollution-generating activities if resource efficiency principles are not incorporated into planning.	- Integrate pollution prevention, resource efficiency, circular economy principles, sustainable production practices, and efficient use of water, energy, and agricultural inputs into investment roadmaps and technical guidelines. - Promote climate-smart agriculture, efficient input use, and sustainable land-use practices.	Include climate-smart agriculture (CSA), Integrated Pest Management (IPM), Good Agricultural Practices (GAP), efficient irrigation technologies, renewable energy, sustainable soil management, and circular economy approaches practices in technology selection and feasibility assessments.	All project sites	During the preparation of LCCAP Adaptation Packages	Part of Output 1.2	PMU, FVVC Technical Working Groups	AF ESPP 12
Component 2: PROCESS – Post-harvest Climate Resilient Centers for Shared Services								
Output 2.1: Crop-specific ADAPT to Market Programme delivered, strengthening the readiness of smallholder farmers, cooperatives, and targeted FVVC actors to use ADAPT Centres as climate-resilient shared service and market interface platforms for aggregation, post-harvest handling, value addition, and structured engagement with buyers and processors	Women, Indigenous Peoples (IPs), persons with disabilities (PWDs), youth, poorer farmers, and other vulnerable groups may face barriers to participation in trainings, planning activities, business development processes, and decision-making related to the ADAPT Centres, which may result in unequal access to project benefits, services, and opportunities.	- Establish and publicly disclose transparent beneficiary selection and participation criteria. - Conduct targeted outreach to women, IPs, PWDs, youth, and other vulnerable groups prior to all training and planning activities. - Schedule activities at accessible locations and times and provide culturally appropriate communication methods. - Ensure participation of women and IP representatives in Centre planning, business planning, and governance activities. - Maintain minimum participation targets in project consultations, planning, training, and decision-making activities of at least: Female: 40%, youth: 20%, PWD: 3%, IP: 15% - Coordinate with NCIP and IP leaders where applicable. - Maintain a functional and accessible GRM and promptly address complaints related to exclusion, discrimination, or access to benefits.	Schedule activities at accessible locations and times and provide culturally appropriate communication methods. Accessible venues with barrier-free access, appropriate seating, accessible toilets, and communication materials in local languages or culturally appropriate formats where needed. GAP implementation procedures and annual monitoring. Coordinate with NCIP and IP leaders where applicable. Maintain a functional and accessible GRM and promptly address complaints related to exclusion, discrimination, or access to benefits.	All project sites, participating LGUs, cooperatives, and consultation venues	During project preparation and throughout implementation	Part of Output 2.1	PMU, LGUs, Cooperatives, MinDA	AF ESPP 2, 3, 4, 7

Component/Output	Environmental & Social Risks	Mitigation Measures	Technical detail	Location	Timeline and frequency	Cost for Mitigating Measure	Responsibility	AF ESP
Output 2.2: ADAPT Centres established, upgraded, and operationalized in targeted project sites as climate-resilient shared service platforms that expand and institutionalize access to aggregation, post-harvest handling, storage, preprocessing, value-addition, and other locally relevant adaptation support functions in FVVC.	Access to ADAPT Centre services may not be equally available to all intended beneficiaries, which may result in unequal participation and benefit-sharing.	- Establish transparent and non-discriminatory user policies - Maintain a minimum target of 80% of identified vulnerable groups having access to and benefiting from ADAPT Centre services - Implement and maintain an accessible GRM.	Develop and publicly disclose user eligibility, beneficiary selection criteria, and operating procedures. Maintain a beneficiary database disaggregated by sex, age, disability, and IP status to monitor participation Implement and maintain an accessible GRM	All project sites	During project preparation and throughout implementation	Part of Output 2.2	PMU, LGUs, Cooperatives, MinDA	AF ESPP 2, 3, 4, 7
	If an ADAPT Centre is located within an ancestral domain, construction and operation may affect customary land use, cultural practices, access to resources, or culturally significant sites.	- Secure FPIC and Certificate of Precondition where required - Prepare Indigenous Peoples Plan (IPP), if applicable	Conduct site validation with NCIP and affected ICCs/IPs Prepare and implement an IPP if required Establish culturally appropriate grievance mechanisms.	ADAPT Centres located within ancestral domain	Prior to subproject implementation	Costs will depend on the applicable fees and processing requirements of the concerned NCIP Regional Office.	PMU, MinDA, NCIP, LGU, ADAPT Centre operators	AF ESPP 7
	The establishment of ADAPT Centres may require the use of land currently occupied or utilized by farmers, vendors, tenants, or other users, which may result in loss of access to land, livelihood activities, productive assets, or sources of income.	- Apply exclusion criteria to avoid sites with displacement impacts - Conduct land due diligence and stakeholder consultation - Secure voluntary land-use agreements.	Apply site selection and exclusion criteria during site screening to avoid physical and economic displacement. Conduct land due diligence, verify land ownership and existing land uses, document voluntary land-use agreements, and confirm that no involuntary resettlement or livelihood displacement will occur before approving the site.	ADAPT Centres	During the site validation and drafting of the Adapt Centre Business Plans	Part of Output 2.2	PMU, MinDA, LGU, ADAPT Centre operators	AF ESPP 8
	Site preparation and construction activities may result in vegetation removal and habitat disturbance and temporary displacement of wildlife.	- Limit clearing to approved work areas. - Implement biodiversity protection measures	Demarcate approved clearing limits before construction. Secure permits for tree cutting, if required Retain mature trees where feasible Prohibit hunting and collection of wildlife Restore disturbed areas with native vegetation after construction, where feasible	Construction site of ADAPT Centres	During construction and start-up of ADAPT Centres	Part of Output 2.2	UNIDO (EE) and ADAPT Centre operators	AF ESPP 9, 10
	Vegetation clearing, earthworks, and construction activities may expose soils to rainfall and surface runoff, which may increase the risk of soil erosion,	- Install, maintain and regularly maintain and inspect erosion and sediment control measures prior to commencement of earthworks. - Maintain an accessible GRM	Limit clearing to approved work areas Install silt fences, sediment traps, temporary drainage, and slope protection before earthworks.	Construction site of ADAPT Centres	During the site validation and drafting of the Adapt Centre Business Plans and followed by the operation of ADAPT Centres cooling	To be included in the construction cost	UNIDO (EE) and ADAPT Centre operators	AF ESPP 12

Component/Output	Environmental & Social Risks	Mitigation Measures	Technical detail	Location	Timeline and frequency	Cost for Mitigating Measure	Responsibility	AF ESP
	sediment transport, and siltation of nearby water bodies.		Inspect erosion controls daily and after heavy rainfall. Immediately repair damaged measures. Record and address erosion-related complaints through the GRM.		storage facilities			
	Operation of cooling systems, processing equipment, generators, and transportation activities may increase energy consumption and greenhouse gas emissions	Utilize energy-efficient equipment	Install energy-efficient motors, pumps, lighting, and processing equipment Install solar energy systems where feasible Implement preventive maintenance following manufacturer recommendations Monitor monthly electricity and fuel consumption to identify opportunities for efficiency improvements.	ADAPT Centres cold storage facilities	Drafting of the Adapt Centre Business Plans and followed by the operation of ADAPT Centres cooling storage facilities	Part of Output 2.2	UNIDO (EE) and ADAPT Centre operators	AF ESPP 11
	Construction activities, earthworks, and material transport may generate dust emissions, which may affect air quality and cause nuisance to nearby communities, workers, crops, and other sensitive receptors.	Implement dust suppression measures	Water spraying of exposed areas especially during dry weather Cover stockpiles and haul trucks Provide wheel-washing where needed Enforce speed limits on unpaved roads Maintain good housekeeping	Construction sites of ADAPT Centres	During construction of ADAPT Centres	Part of Output 2.2	UNIDO (EE) and ADAPT Centre operators	AF ESPP 12, 13
	Use of construction equipment and movement of vehicles may generate elevated noise levels, which may disturb nearby communities, workers, schools, health facilities, and other sensitive receptors.	- Implement noise control measures at source - Implement and maintain an accessible GRM.	- Schedule noisy activities during daytime - Equip machinery with functional mufflers, maintain equipment regularly - Install noise barrier within construction site if near sensitive receptors where practicable - Notify nearby communities before high-noise activities.	Construction sites of ADAPT Centres	During construction of ADAPT Centres	Part of Output 2.2	UNIDO (EE) and ADAPT Centre operators	AF ESPP 12, 13

Component/Output	Environmental & Social Risks	Mitigation Measures	Technical detail	Location	Timeline and frequency	Cost for Mitigating Measure	Responsibility	AF ESP
	Improper handling of fuels, oils, lubricants, chemicals, solid waste, and hazardous waste may result to soil contamination	- Implement waste management plans - Implement oil spill management	Provide proper containers and designated storage areas compliant with RA 6969 and RA 9003 Store hazardous waste, fuels and chemicals in roofed bunded areas with secondary containment Waste will be regularly collected by DENR-accredited waste transporters and treatment facilities for proper treatment and disposal Implement spill prevention and response procedures Provide oil spill kits onsite Conduct regular check-up of vehicles and equipment for possible fuel leaks	ADAPT Centres	During construction and operation of ADAPT Centres	Part of Output 2.2 for the constuction and considered for the O&M planning	UNIDO (EE) and ADAPT Centre operators	AF ESPP 12, 15
	Discharge of untreated domestic wastewater generated by workers may result to contamination of receiving water bodies.	Provide adequate sanitation facilities with water-tight septic tanks.	Provide adequate sanitation facilities with water-tight septic tanks. Septic tanks should be regularly desludged for proper treatment and disposal through accredited service providers	ADAPT Centres	During construction and operation of ADAPT Centres	To be included in the construction cost and operating cost	ADAPT Centre operators	AF ESPP 12, 13
	Disposal of untreated wastewater generation from cleaning and maintenance activities of cold chain storage may cause pollution of nearby water bodies	- Ensure proper drainage and wastewater disposal; - Maintain septic tanks or wastewater treatment systems; - Avoid direct discharge to water bodies - Use environmentally friendly and non-toxic cleaning agents, where feasible.	Collect wash water through floor drains connected to septic tanks or wastewater treatment systems. Secure discharge permit from DENR, if applicable Inspect drainage systems regularly Prohibit direct discharge to water bodies Use non-toxic cleaning agents where feasible.	ADAPT Centres	During operation of ADAPT Centres	To be included in the operation costs	ADAPT Centre operators	AF ESPP 12, 13
	Leakage of refrigerants from cold storage and cooling systems may contribute to greenhouse gas emissions and may pose health and safety risks to workers during operation and maintenance activities	- Conduct regular leak detection and maintenance - Use environmentally acceptable refrigerants.	Install refrigeration systems using low-GWP refrigerants where feasible. Conduct routine leak testing Maintain equipment according to manufacturer specifications	ADAPT Centres – cold storage facilities	During operation of ADAPT Centres – cold storage facilities	Part of Output 2.2 for the constuction and considered for the O&M planning	UNIDO (EE) and ADAPT Centre operators	AF ESPP 12, 13
	Water abstraction for facility operations may reduce water availability for other users and nearby ecosystems.	- Secure applicable water permits - Monitor water use - Install water-saving technologies and reuse systems where feasible.	Install water meters to monitor consumption, inspect plumbing for leaks Use water-efficient fixtures Operate within water permit limits.	ADAPT Centres	During operation of ADAPT Centres	Part of Output 2.2 for the constuction and considered for the O&M planning	UNIDO (EE) and ADAPT Centre operators	AF ESPP 12
	Improper management of food-processing waste, spoiled produce, packaging	Implement waste segregation, recycling, composting, residue	Segregate biodegradable, recyclable, and residual wastes at source. Provide color-coded waste bins	ADAPT Centres	During operation of ADAPT Centres	Part of Output 2.2 for the constuction and considered for	UNIDO (EE) and ADAPT Centre operators	AF ESPP 12, 13

Component/Output	Environmental & Social Risks	Mitigation Measures	Technical detail	Location	Timeline and frequency	Cost for Mitigating Measure	Responsibility	AF ESP
	waste, wastewater, and organic residues generated during operation may cause odor, pest infestation, and pollution of soil and water resources.	- recovery, and wastewater management measures. - Prioritize beneficial use of organic residues. - Implement and maintain an accessible GRM.	Compost or recover organic residues where feasible Provide covered waste storage areas Maintain regular waste collection schedules Implement housekeeping and pest control measures.			the O&M planning		
	Construction activities and vehicle movement may cause injuries or accidents involving workers and nearby communities.	- Implement Contractor Health and Safety Plan, traffic management measures, emergency preparedness, and community safety measures. - Implement and maintain an accessible GRM.	Develop and implement Contractor Health and Safety and Traffic Management Plans. Install warning signs, barricades, and traffic control devices, assign trained flagmen where necessary Provide first-aid kits and emergency equipment Conduct toolbox meetings before work activities.	Construction sites	During construction of ADAPT Centres	Part of Output 2.2	UNIDO (EE) and ADAPT Centre operators	AF ESPP 13
	Operation of equipment and facilities may pose occupational hazards to the workers, including machine-related injuries, electrical hazards, slips, falls, and food-processing risks.	- Implement OHS Management Plan - Provide PPE - Conduct safety training - Establish emergency response procedures.	Ensure all workers are provided with safety training prior to deployment Barricade the construction site and install signage to restrict unauthorized access Provide PPE and conduct regular checks to ensure workers wear the PPE Install machine guards and electrical protection devices Provide first-aid kits and emergency equipment Conduct toolbox meetings before work activities. Implement incident reporting procedures	ADAPT Centres	During construction of ADAPT Centres	Part of Output 2.2	UNIDO (EE) and ADAPT Centre operator	AF ESPP 4, 13
	Improper storage, processing, or handling of products may result in food contamination and spoilage.	Implement food safety protocols, sanitation procedures, hygiene standards, traceability systems, and regular inspections.	Apply Good Manufacturing Practices (GMP), Good Hygiene Practices (GHP), and HACCP principles. Maintain sanitation schedules, cold-chain temperature monitoring, product traceability records, and routine cleaning and disinfection of processing areas and equipment.	ADAPT Centres	During construction and operation of ADAPT Centres	Part of Output 2.2 for the construction and considered for the O&M planning	UNIDO (EE) and ADAPT Centre operators	AF ESPP 13
	Excavation activities may result to accidental discovery of archaeological materials, cultural artifacts, or culturally significant resources	- Implement Chance Find Procedure - Stop work upon discovery and coordinate with relevant authorities immediately	Immediately suspend work within the discovery area, secure the site, notify the National Museum, NCIP (where applicable), and relevant authorities, document the find, and resume work only after written clearance is obtained.	Construction site of ADAPT Centres	During construction of ADAPT Centres	0	ADAPT Centre operators	AF ESPP 14
	Poor labor practices of the contractor may result to unsafe working conditions, GBV/SEAH, discrimination, child labor, or forced labor.	- Include labor, OHS, non-discrimination, and child/forced labor requirements in all contracts - Establish worker grievance mechanisms	Incorporate labor and OHS requirements into bidding and contract documents, including compliance with national labor laws and project labor standards.	Construction site of ADAPT Centres	During construction of ADAPT Centres	Part of Output 2.2	ADAPT Centre operators	AF ESPP 4, 6, 13

Component/Output	Environmental & Social Risks	Mitigation Measures	Technical detail	Location	Timeline and frequency	Cost for Mitigating Measure	Responsibility	AF ESP
			Verify workers' age and employment records prior to hiring. Ensure all workers will be paid according to the minimum wage conditions Conduct contractor orientation and periodic labor compliance audits. Establish a confidential worker GRM with procedures for receiving, investigating, and resolving complaints, including survivor-centered referral procedures for GBV/SEAH cases.					
Component 3: INVEST – Inclusive Financing for Vegetables and Fruits Value-Chain Enhancement and Sustainable Transformation								
Output 3.1: ADAPT to Farm CRA Programme implemented with selected Small and Micro-Cooperatives, combining close support for climate-risk informed CRA business planning and demo farming to deliver practical experience, and tangible on-farm adaptation benefits through the application of technically sound CRA solutions under real farming conditions	Vulnerable groups, women, IPs, and small and micro cooperatives may have limited participation in CRA planning and beneficiary selection processes, which may result in unequal access to project benefits, grants, technical assistance, and adaptation opportunities.	- Conduct inclusive and culturally appropriate consultations - Disclose project information and eligibility criteria - Implement transparent beneficiary selection and equitable benefit-sharing mechanisms - Maintain minimum participation targets in project consultations, planning, training, and decision-making activities of at least: Female: 40%, youth: 20%, PWD: 3%, IP: 15% - Implement and maintain accessible GRM.	Accessible venues with barrier-free access, appropriate seating, accessible toilets, and communication materials in local languages or culturally appropriate formats where needed. Coordinate with NCIP and IP leaders where applicable and integrate Indigenous Knowledge Systems and Practices (IKSPs) into adaptation planning. Implement the Gender Action Plan (GAP), establish the Gender, Inclusion and Social Safeguards Advisory (GASC) Implement and maintain a Project-level GRM with documented procedures for complaint receipt, registration, investigation, resolution, feedback, and monitoring.	All project sites, participating LGUs, cooperatives, and consultation venues	During project preparation and throughout implementation	Part of Output 3.1	PMU, LGUs, Cooperatives, MinDA	AF ESPP 2, 3, 4, 7
	Proposed CRA interventions may adversely affect environmentally sensitive areas, natural habitats, or biodiversity if environmental considerations are not adequately incorporated during planning and site selection.	- Conduct environmental and biodiversity screening for all proposed CRA interventions and demonstration farm sites prior to approval. - Apply exclusion criteria for protected areas, critical habitats, KBAs, and environmentally sensitive areas. - Integrate biodiversity-friendly agricultural practices and ecosystem-based adaptation measures into CRA Business Plans.	Utilize GIS-based environmental screening and overlay mapping to identify protected areas, critical habitats, KBAs, forestlands, and other environmentally sensitive areas Integrate biodiversity-friendly agricultural practices and ecosystem-based adaptation measures into CRA Business Plans.	All project sites	During the preparation of CRA Business Plans	Part of Output 3.1	PMU, LGUs, Cooperatives, MinDA	AF ESPP 9, 10
	Demo-farming activities within ancestral domains may affect customary practices, resource	- Conduct site validation with NCIP and affected ICCs/IPs; secure FPIC and Certificate of Precondition where required - Prepare and implement an IPP if required	Conduct site validation with NCIP and affected ICCs/IPs Prepare and implement an IPP, where required, incorporating culturally appropriate engagement, benefit-sharing measures	Demo farming sites located within ancestral domain	Prior to USP implementation	Part of Output 3.1	PMU, LGUs, Cooperatives, MinDA	AF ESPP 7

Component/Output			Environmental & Social Risks	Mitigation Measures	Technical detail	Location	Timeline and frequency	Cost for Mitigating Measure	Responsibility	AF ESP
			use, or culturally significant areas.	Establish culturally appropriate grievance mechanisms.	Establish culturally appropriate grievance mechanisms.					
			Selection of demonstration farm sites may affect existing land uses, farming activities, or livelihood sources if site suitability and land-use arrangements are not properly assessed.	- Apply exclusion criteria to avoid sites with displacement impacts - Conduct land due diligence and stakeholder consultation - Secure voluntary land-use agreements.	Apply site selection and exclusion criteria during site screening to avoid physical and economic displacement. Conduct land due diligence, verify land ownership and existing land uses, document voluntary land-use agreements, and confirm that no involuntary resettlement or livelihood displacement will occur before approving the site.	Demo farming sites	During the preparation of CRA Business Plans	Part of Output 3.1	PMU, LGUs, Cooperatives, MinDA	AF ESPP 8, 15
	Improper use, handling, storage, or disposal of fertilizers, pesticides, and related farm inputs may pose risks to human health and result in contamination of soil and water resources.	- Train all participating farmers on Integrated Pest Management (IPM), Good Agricultural Practices (GAP), safe handling of agrochemicals, and emergency response procedures prior to field implementation. - Require the use of appropriate PPE during chemical handling and application. - Establish designated storage areas for agrochemicals and provide spill response materials where applicable. - Prohibit improper disposal, reuse and open dumping of pesticide containers and ensure compliance with applicable DENR requirements.		Provide annual training on IPM, GAP, safe handling of agrochemicals, and emergency response procedures to the coop members Establish designated storage areas for agrochemicals with secondary containment Provide PPEs Prohibit improper disposal, reuse and open dumping of pesticide containers Agrochemical wastes should be collected for disposal by DENR-accredited waste collectors	Demo farming sites	During implementation	Part of Output 3.1	EE, selected cooperatives	AF ESPP 12, 13, 15	
	Generation of organic wastes and crop residues may result in odor, pest infestation, or localized water pollution if not properly managed.			- Require participating farms to implement composting, mulching, residue incorporation, or other beneficial reuse practices. - Prohibit open burning of crop residues. - Monitor waste management practices during regular farm visits and technical support activities. - Implement and maintain accessible GRM.	Develop and implement farm waste management procedure covering waste segregation, collection, storage, composting, mulching, and residue incorporation. Establish designated composting areas away from waterways and maintain proper moisture and aeration to minimize odor and pests. Store organic wastes in covered containers or composting bins until processing. Verify compliance during routine farm inspections and provide technical guidance on compost production and beneficial reuse of organic residues.	Demo farming sites	During implementation	Part of Output 3.1	EE, selected cooperatives	AF ESPP 12, 13
			Excessive abstraction and inefficient use of water for irrigation may place pressure on local water resources and reduce water availability for other users.	- Secure applicable water permits - Promote water-efficient irrigation systems, irrigation scheduling, soil moisture monitoring, rainwater harvesting, and water conservation practices. - Require participating farms to monitor irrigation water use and adopt water-saving	Obtain water permits from NWRB prior to abstraction where required. Install water meters to monitor consumption, Regularly inspect irrigation systems for leaks If feasible, use drip or sprinkler irrigation, Implement irrigation scheduling based on crop	Demo farming sites	During implementation	Part of Output 3.1	EE, selected cooperatives	AF ESPP 12

Component/Output	Environmental & Social Risks	Mitigation Measures	Technical detail	Location	Timeline and frequency	Cost for Mitigating Measure	Responsibility	AF ESP
		measures appropriate to local conditions. • Ensure applicable water permits are secured where required by regulation.	water requirements and soil moisture conditions Implement rainwater harvesting harvesting Use water-efficient fixtures Operate within water permit limits.					

5.2 Other E&S Plans

5.2.1 Indigenous Peoples Plan

184. The Indigenous Peoples Plan (IPP) shall be prepared for subprojects that are located within ancestral domains, may affect IPs, involve the use of resources within ancestral domains, or where IP communities are identified as direct beneficiaries, workers, or affected stakeholders. The IPP shall be prepared in accordance with the requirements of IPRA, the AF ESPP, and the UNIDO OS.
185. The level of detail and scope of the IPP shall be commensurate with the nature and significance of the potential impacts and risks to IP communities and ancestral domains. The IPP shall also ensure culturally appropriate, gender-responsive, and inclusive approaches throughout project planning, implementation, monitoring, and operation. Table 5-2 shows the proposed annotated outline of the IPP.

Table 5-2: Proposed Annotated Outline of the IPP

Section	Key Contents / Description
A. Executive Summary	This section shall present a concise summary of the key findings, identified impacts and risks, proposed mitigation and enhancement measures, consultation outcomes, and major commitments under the IPP.
B. Description of the Subproject	This section shall provide an overview of the proposed subproject, including: • Nature, objectives, and components of the subproject; • Location and maps of the subproject area; • Description of activities that may affect IP communities and ancestral domains; • Relationship of the subproject to climate adaptation and resilience objectives; and • Identification of IP communities and ancestral domains within the influence area of the subproject.
C. Legal, Policy, and Institutional Framework	This section shall discuss the applicable legal and institutional framework relevant to Indigenous Peoples, including: • Indigenous Peoples Rights Act (IPRA); • Requirements of the National Commission on Indigenous Peoples (NCIP); • Adaptation Fund Environmental and Social Policy (AF ESPP); • UNIDO Operational Safeguards; • Relevant national and local policies on ancestral domains, natural resource use, labor, and stakeholder engagement; and • Applicable Free and Prior Informed Consent (FPIC) requirements.
D. Baseline Information and Social Assessment	This section shall provide baseline information on the affected IP communities, including: • Demographic, social, cultural, economic, and political characteristics; • Traditional governance systems and customary decision-making processes; • Land and resource use patterns; • Livelihood activities and dependence on natural resources; • Existing access to water, agricultural resources, and social services; • Vulnerability to climate change and disasters; • Gender roles and participation within the community; and • Existing environmental and social issues relevant to the subproject. This section shall also assess the potential positive and adverse impacts of the subproject on IP communities, ancestral domains, traditional resource use, cultural practices, livelihoods, labor conditions, and access to resources. The assessment shall include culturally appropriate and gender-sensitive analysis of impacts and vulnerabilities.
E. Information Disclosure, Consultation, and Participation	This section shall describe the process undertaken to ensure meaningful, culturally appropriate, gender-responsive, and inclusive consultations with IP communities throughout project preparation and implementation. The section shall include: • Consultation activities conducted; • Key issues, concerns, and recommendations raised by IP communities; • Documentation of agreements and consultation outcomes; • Participation of women, elders, youth, and vulnerable IP members; • FPIC process and status, where applicable; • Disclosure activities and methods used; and • Planned consultation and participation activities during implementation and operation.
F. Beneficial Measures	This section shall identify measures to ensure that IP communities receive culturally appropriate and equitable social and economic benefits from the subproject, which may include: • Access to climate-resilient agricultural infrastructure and services; • Livelihood and income enhancement opportunities; • Capacity-building and technical training; • Employment opportunities for IP members;

Section	Key Contents / Description
	- Improved water access and post-harvest support; and - Strengthening of climate resilience and food security within IP communities.
G. Measures to Avoid, Minimize, Mitigate, and Compensate Adverse Impacts	This section shall present the measures to address identified risks and adverse impacts to IP communities and ancestral domains, including: - Protection of traditional resource use and cultural practices; - Sustainable and equitable water resource management; - Prevention of conflicts related to land and water use; - Labor management and occupational health and safety measures for IP workers; - Prevention of discrimination, GBV, SEA/SH, and social exclusion; - Environmental protection and pollution prevention measures; and - Mitigation and compensation measures for unavoidable impacts, where applicable.
H. Capacity Building	This section shall describe measures to strengthen the capacity of the PMU, cooperatives, LGUs, contractors, and IP organizations to implement the IPP and comply with safeguard requirements. This may include training on: - IP rights and IPRA requirements; - FPIC and culturally appropriate engagement; - Gender sensitivity and social inclusion; - Labor and occupational health and safety; - Grievance management; - Climate-resilient agriculture and sustainable resource management; and - Environmental and social safeguards compliance.
I. Grievance Redress Mechanism (GRM)	This section shall describe the culturally appropriate and accessible grievance mechanism for IP communities and workers. The section shall include: - Procedures for filing and resolving complaints; - Roles and responsibilities of concerned parties; - Confidentiality and protection measures; - Procedures for GBV/SEA/SH-related complaints; - Coordination with NCIP and traditional leaders, where applicable; and Monitoring and documentation of grievances and resolutions.
J. Institutional Arrangements and Implementation Responsibilities	This section shall identify the roles and responsibilities of UNIDO, the PMU, cooperatives, LGUs, contractors, NCIP, IP leaders, and other relevant stakeholders in implementing and monitoring the IPP. Coordination and reporting arrangements shall also be presented
K. Monitoring, Reporting, and Evaluation	This section shall describe the monitoring and evaluation framework for the IPP, including: - Monitoring indicators and targets; - Environmental and social monitoring activities; - Participation of IP communities in monitoring activities; - Reporting requirements and frequency; - Corrective and adaptive management measures; and - Evaluation of effectiveness of mitigation and benefit-sharing measures.
L. Budget and Implementation Schedule	This section shall provide the estimated budget and implementation schedule for all IPP activities, including consultations, FPIC processes, mitigation measures, monitoring, capacity building, and grievance management

5.2.2 Chance Find Procedure

¹⁸⁶. As the project will involve civil and earth movement works, there is a chance of encountering artefacts that may be of historical or heritage significance. Hence, the LGU, cooperatives and its contractor shall implement the following chance find procedure:

- Stakeholder engagement must be undertaken in advance of the construction activities to determine if the site is of cultural heritage or archaeology importance, or if artefacts are likely to be found, or if the area has been/is used as a burial ground. If yes, then a detailed assessment of the site by a heritage expert should be conducted;
- Despite precautions, if buried artefacts are encountered during the construction activities, all activities in the vicinity of the site must stop. The operators and workers will be briefed about identification of artefacts and other chance find items to help them detect such finds;
- Once confirmed, delineate the discovered find/feature/site. Record the find location and all remains are to be left in place. Secure the area to prevent any damage or loss of removable objects;

- The discovery must then be immediately reported to the National Museum, Archaeology Division as required by law in pursuant to *Article 7 Section 30b of the Republic Act 10066 on “Anthropological Research and Archaeological Exploration/Excavation”*; and
- An archaeologist from the National Museum will conduct a “Salvage/Rescue Archaeology” to ensure the full recovery of the artefact. This will ensure that proper protocol on scientific excavation and interpretation will be carried out to fully understand the importance of the site and its contribution to archaeology in the Philippines.

5.2.3 Solid Waste Management Plan (SWMP)

- ^{187.} A Solid Waste Management Plan (SWMP) is required for the ADAPT Mindanao Project to ensure the proper management of solid wastes that may be generated during the implementation and operation of activities under the PROCESS and INVEST components.
- ^{188.} The PROCESS component may generate various waste streams, including construction debris, packaging materials, spoiled produce, food-processing residues, recyclable materials, and domestic wastes from facility users and workers. Similarly, the INVEST component may generate agricultural wastes such as crop residues, pruning materials, fertilizer sacks, plastic mulching materials, and other farm-related wastes associated with demonstration farms and climate-resilient agriculture interventions.
- ^{189.} If not properly managed, these wastes may contribute to littering, odor generation, pest infestation, blockage of drainage systems, and pollution of soil and water resources. The SWMP establishes procedures for waste minimization, segregation, reuse, recycling, composting, residue recovery, collection, storage, transport, and disposal. It also promotes resource efficiency and circular economy approaches by encouraging the beneficial use of organic residues, reduction of post-harvest losses, recovery of recyclable materials, and composting of biodegradable wastes, consistent with the requirements of the AF ESPP 12 and RA 9003, Ecological Solid Waste Management Act of 2000. Table 5-3 presents the proposed annotated outline of the SWMP.

Table 5-3: Proposed Annotated Outline of SWMPSection	Key Contents / Description
1. Introduction	Purpose, objectives, scope, and applicability of the SWMP for the PROCESS and INVEST components.
2. Policy, Legal, and Institutional Framework	Applicable requirements of AF ESPP 12, UNIDO Operational Safeguards, RA 9003, and relevant local ordinances on solid waste management.
3. Waste Sources and Characterization	Description of waste streams expected from ADAPT Centres, post-harvest facilities, storage and processing activities, demonstration farms, and agricultural operations.
4. Waste Management Hierarchy	Application of waste avoidance, reduction, reuse, recycling, composting, recovery, and disposal principles.
5. Waste Management Measures	Procedures for waste segregation, collection, storage, transport, recycling, composting, residue recovery, and final disposal of residual wastes.
6. Organic Waste and Residue Management	Management of spoiled produce, crop residues, food-processing residues, pruning materials, and other biodegradable wastes through composting, animal feed, mulching, or other beneficial uses.
7. Recyclable Waste Management	Collection, storage, and recycling of paper, cardboard, plastics, glass, metals, and other recyclable materials.
8. Pollution Prevention Measures	Measures to prevent littering, odor generation, pest infestation, drainage blockage, and contamination of soil and water resources.
9. Roles and Responsibilities	Responsibilities of the PMU, cooperatives, ADAPT Centre operators, contractors, LGUs, and beneficiaries for implementing the SWMP.
10. Training and Awareness	Capacity-building activities on waste segregation, composting, recycling, good housekeeping, and resource efficiency.
11. Monitoring and Reporting	Waste generation and diversion monitoring, inspections, reporting requirements, indicators, and corrective actions.
12. Grievance Mechanism	Procedures for receiving and addressing waste-related complaints and concerns.
13. Budget and Implementation Schedule	Estimated costs, responsible parties, implementation timeline, and resource requirements for SWMP implementation.
Annexes	Waste inventory forms, monitoring forms, inspection checklists, reporting templates, and awareness materials.

5.2.4 Hazardous Waste Management Plan

- ^{190.} Hazardous wastes may also be generated during the construction and operation phases of the subprojects. These may include busted bulbs, used oil, spent batteries, chemical and agrochemical containers, contaminated materials, expired chemicals, used filters, refrigerant-related wastes, used pesticide and herbicide containers, fertilizer containers, and other hazardous materials associated with

facility operation, equipment maintenance, greenhouse operation, and agricultural activities. Improper handling and disposal of these wastes may pose risks to human health and the environment through soil and water contamination, toxic exposure, fire hazards, and improper chemical release.

191. During operation, agricultural activities may particularly generate hazardous wastes such as empty pesticide, herbicide, and fertilizer containers, contaminated packaging materials, and residual agrochemicals. Improper disposal, open burning, or reuse of these containers for domestic purposes may result in contamination of soil, surface water, groundwater, crops, and nearby communities.
192. To address these concerns, the cooperative and/or facility operator shall develop and implement a Hazardous Waste Management Plan to ensure the proper handling, storage, transport, treatment, and disposal of hazardous wastes generated by the subprojects. The HWMP shall comply with the requirements of DENR Administrative Order (DAO) 2013-22 and other applicable environmental regulations. The following measures shall be incorporated into the Plan:
- Appropriate containers shall be used for each type of hazardous waste generated. Containers shall be properly sealed, closed, free from leaks, and clearly labeled with the corresponding hazardous waste classification and warning signs;
 - Used pesticide, herbicide, and fertilizer containers shall not be reused for domestic, food, or water storage purposes;
 - Used agrochemical containers shall undergo proper rinsing procedures, where applicable, and shall be punctured or rendered unusable prior to storage and disposal to prevent unauthorized reuse;
 - Incompatible hazardous wastes shall not be stored together or near each other to prevent chemical reactions, spills, fire, or other hazardous incidents;
 - Hazardous waste storage areas shall be secure, covered, well-ventilated, and provided with impermeable flooring and secondary containment measures to prevent leaks and contamination;
 - Hazardous waste storage and labeling practices shall comply with the minimum requirements specified under Chapter 6 of DENR DAO 2013-22;
 - Spill kits, fire extinguishers, and emergency response procedures shall be made available in hazardous waste storage and handling areas;
 - Personnel handling hazardous wastes shall be provided with appropriate personal protective equipment (PPE) and training on proper handling, storage, spill response, and emergency procedures;
 - Transport, treatment, recycling, and disposal of hazardous wastes shall only be undertaken by DENR-accredited hazardous waste transporters and Treatment, Storage, and Disposal (TSD) facilities; and
 - Records of hazardous waste generation, storage, transport, and disposal shall be maintained and monitored in accordance with applicable regulatory and reporting requirements.

Table 5-4: Proposed Annotated Outline of HWMP

Section	Key Contents / Description
1. Introduction	Purpose, objectives, scope, and applicability of the HWMP for the PROCESS and INVEST components.
2. Policy, Legal, and Institutional Framework	Applicable requirements of AF ESPP 12, UNIDO Operational Safeguards, RA 6969, DENR hazardous waste regulations, and relevant local ordinances.
3. Hazardous Waste Sources and Characterization	Identification and classification of hazardous wastes that may be generated from ADAPT Centres, processing facilities, cooling systems, equipment maintenance, and demonstration farms.
4. Hazardous Waste Inventory	Estimated quantities, waste classifications, generation points, storage requirements, and responsible generators.
5. Hazardous Waste Management Procedures	Procedures for waste minimization, segregation, labeling, collection, handling, temporary storage, transport, treatment, and disposal.
6. Storage and Containment Requirements	Design and management of hazardous waste storage areas, secondary containment, spill prevention measures, signage, and inspection requirements.
7. Specific Waste Management Measures	Management procedures for pesticide containers, used oils and lubricants, batteries, fluorescent lamps, e-waste, refrigerants, chemical containers, contaminated absorbents, and laboratory wastes (if applicable).

8. Transport, Treatment, and Disposal	Procedures for off-site transport, use of DENR-accredited transporters and TSD facilities, manifest system, and record keeping.
9. Spill Prevention and Emergency Response	Procedures for spill prevention, spill response, emergency preparedness, incident reporting, and corrective actions.
10. Occupational Health and Safety	PPE requirements, safe handling procedures, worker training, exposure prevention, and emergency response measures.
11. Roles and Responsibilities	Responsibilities of the PMU, contractors, ADAPT Centre operators, cooperatives, transporters, and accredited waste service providers.
12. Training and Awareness	Training on hazardous waste identification, handling, storage, spill response, emergency procedures, and regulatory compliance.
13. Monitoring and Reporting	Waste generation records, manifests, inspection reports, spill records, compliance monitoring, and reporting requirements.
14. Grievance Mechanism	Procedures for receiving and addressing hazardous waste-related complaints and incidents.
15. Budget and Implementation Schedule	Estimated costs, implementation timeline, and resource requirements for hazardous waste management activities.
Annexes	Hazardous waste inventory forms, manifests, inspection checklists, spill response procedures, emergency contact lists, and training records.

5.3 Environmental and Social Monitoring Plan

¹⁹³. Table 5-5 presents the monitoring plan to track the implementation and effectiveness of the E&S mitigation measures. It includes the project activities, E&S risks, monitoring methods, key parameters or indicators, timeline and frequency, detection limits, and responsibilities for implementation

Table 5-5: Environmental and Social Monitoring Plan

Component/Output	Environmental & Social Risks	Mitigation Measures	Monitoring Method/Location	Parameters/Indicators	Detection limit/Threshold	Frequency/Timeline	Person Responsible
Component 1: LEAD – Local Empowerment for Adaptation Decision Making							
Output 1.1: Local leadership, targeted FVVC actors, and existing project-site governance arrangements enabled through the LEAD to ADAPT Programme to assess climate risks, define adaptation priorities, and steer the preparation and operationalization of LCCAP linked FVVC adaptation packages	Women, Indigenous Peoples (IPs), persons with disabilities (PWDs), youth, elderly persons, and poorer farmers, may have limited participation in adaptation planning, capacity-building activities, and decision-making processes. Their priorities, traditional knowledge, adaptation needs, and perspectives may not be adequately reflected in project planning and investment prioritization, which may result in unequal access to project benefits, adaptation interventions that are less responsive to the needs of vulnerable groups and reduced effectiveness of adaptation interventions.	- Ensure inclusive, accessible, and culturally appropriate consultations, trainings, and planning activities. - Ensure venues and communication methods are accessible and appropriate for women, IPs, PWDs, and other vulnerable groups. - Promote representation of women and IPs in adaptation committees and planning bodies. - Maintain minimum target participation of vulnerable groups: Female: 40%, youth: 20%, PWD: 3%, IP: 15% - Coordinate with NCIP and IP leaders where applicable and integrate Indigenous Knowledge Systems and Practices (IKSPs) into adaptation planning. - Implement the Gender Action Plan (GAP), establish the Gender, Inclusion and Social Safeguards Advisory (GASC) - Establish and maintain a Project-level Grievance Redress Mechanism (GRM).	Review of action plan	Percentage of adaptation priorities reflecting the needs of women, senior citizen, youth, IP and other vulnerable groups	100%	Prior finalization of Action Plan	PMU, Environmental, Gender and Social Safeguards Specialist
Output 1.2: Mindanao FVVC Adaptation Action Plan for 2030–2050 developed, supported by regional and sectorial climate risk assessments, technology needs assessments, investment roadmaps, toolkits, sector specific guidelines, and feasibility assessments for priority fruits and crops	Future adaptation investments promoted through the Action Plan may adversely affect natural habitats and biodiversity if environmental safeguards are not incorporated into planning and investment frameworks	- Integrate environmental screening procedures, habitat protection criteria, biodiversity screening requirements, exclusion lists, ecosystem-based adaptation approaches, and sustainable agriculture principles into investment frameworks, toolkits, technical guidelines, and feasibility assessments. - Prohibit project in protected areas, critical habitats, and KBAs	Review of action plan	Number of proposed investments located within protected areas, critical habitats, or KBAs	0	Prior finalization of Action Plan	PMU, FVVC Technical Working Groups
	Proposed adaptation interventions may create maladaptation risks or fail to adequately address long-term climate risks and resilience objectives.	- Ensure climate risk assessments, technology needs assessments, feasibility studies, and investment roadmaps incorporate climate resilience, adaptation effectiveness, and maladaptation screening. - Require all proposed adaptation measures, technologies, and investments to undergo climate risk, resilience, and maladaptation prior implementation	Review of climate risk assessments	Percentage of proposed adaptation measures, technologies, and investments subjected to climate risk and maladaptation screening.	100%	Prior finalization of Action Plan	PMU, FVVC Technical Working Groups
	Future investments may promote resource-intensive technologies, increased agrochemical use, or pollution-generating activities if resource efficiency principles are not incorporated into planning.	- Integrate pollution prevention, resource efficiency, circular economy principles, sustainable production practices, and efficient use of water, energy, and agricultural inputs into investment roadmaps and technical guidelines. - Promote climate-smart agriculture, efficient input use, and sustainable land-use practices.	Review of action plan	Investments approved without appropriate pollution prevention and resource-efficiency measures	0	Prior finalization of Action Plan	PMU, FVVC Technical Working Groups
Component 2: PROCESS – Post-harvest Climate Resilient Centers for Shared Services							
Output 2.1: Crop-specific ADAPT to Market Programme delivered, strengthening the readiness of smallholder farmers, cooperatives, and targeted FVVC actors to use ADAPT Centres as climate-resilient shared service and market interface platforms for aggregation, post-harvest handling, value addition, and structured engagement with buyers and processors	Women, Indigenous Peoples (IPs), persons with disabilities (PWDs), youth, poorer farmers, and other vulnerable groups may face barriers to participation in trainings, planning activities, business development processes, and decision-making related to the ADAPT Centres, which may result in unequal access to project benefits, services, and opportunities.	- Establish and publicly disclose transparent beneficiary selection and participation criteria. - Conduct targeted outreach to women, IPs, PWDs, youth, and other vulnerable groups prior to all training and planning activities. - Schedule activities at accessible locations and times and provide culturally appropriate communication methods. - Ensure participation of women and IP representatives in Centre planning, business planning, and governance activities. - Maintain minimum participation targets in project consultations, planning, training, and decision-	Review of technical design of ADAPT Centres	Percent ADAPT Centres reflecting the needs of women, senior citizen, youth, IP and other vulnerable groups	100%	Prior finalization of Action Plan	PMU, Environmental, Gender and Social Safeguards Specialist, Gender, Inclusion and Social Accountability Committee

Component/Output	Environmental & Social Risks	Mitigation Measures	Monitoring Method/Location	Parameters/Indicators	Detection limit/Threshold	Frequency/Timeline	Person Responsible
		making activities of at least: Female: 40%, youth: 20%, PWD: 3%, IP: 15% - Coordinate with NCIP and IP leaders where applicable. - Maintain a functional and accessible GRM and promptly address complaints related to exclusion, discrimination, or access to benefits.					
Output 2.2: ADAPT Centres established, upgraded, and operationalized in targeted project sites as climate-resilient shared service platforms that expand and institutionalize access to aggregation, post-harvest handling, storage, preprocessing, value-addition, and other locally relevant adaptation support functions in FVVC.	Access to ADAPT Centre services may not be equally available to all intended beneficiaries, which may result in unequal participation and benefit-sharing.	- Establish transparent and non-discriminatory user policies - Maintain a minimum target of 80% of identified vulnerable groups having access to and benefiting from ADAPT Centre services - Ensure equitable access to facilities and services - Implement and maintain an accessible GRM.	Review of beneficiary records, user access records;	Percent ADAPT Centres accessible to women, senior citizen, youth, IP and other vulnerable groups	100%	Quarterly or based on Project M&E	PMU, Environmental, Gender and Social Safeguards Specialist, Gender, Inclusion and Social Accountability Committee
	If an ADAPT Centre is located within an ancestral domain, construction and operation may affect customary land use, cultural practices, access to resources, or culturally significant sites.	- Conduct site validation with NCIP and affected ICCs/IPs - Secure FPIC and Certificate of Precondition where required - Prepare and implement an IPP if required - Establish culturally appropriate grievance mechanisms.	Review of FPIC documentation; Certificate of Precondition; NCIP endorsements; IPP	Percentage of ADAPT Centres located within ancestral domain secured CP from NCIP	100%	Prior to approval	PMU, Environmental, Gender and Social Safeguards Specialist
			Review of grievance logs	Number of unresolved grievances from IP	0	Quarterly or based on Project M&E	
	The establishment of ADAPT Centres may require the use of land currently occupied or utilized by farmers, vendors, tenants, or other users, which may result in loss of access to land, livelihood activities, productive assets, or sources of income.	- Apply exclusion criteria to avoid sites with displacement impacts - Conduct land due diligence and stakeholder consultation - Secure voluntary land-use agreements.	Review of land ownership documents; land-use agreements; due diligence reports; consultation records.	Percentage of ADAPT Centres that resulted to involuntary resettlement or physical and economical displacement	0	Prior to approval	PMU, Environmental, Gender and Social Safeguards Specialist
	Site preparation and construction activities may result in vegetation removal and habitat disturbance and temporary displacement of wildlife.	- Limit clearing to approved work areas. - Secure permits for tree cutting, if required - Prohibit hunting and collection of wildlife - Implement biodiversity protection measures	Review of biodiversity monitoring reports	Number of biodiversity incidents or violations reported.	0	Daily during construction	ADAPT Centre operators
	Vegetation clearing, earthworks, and construction activities may expose soils to rainfall and surface runoff, which may increase the risk of soil erosion, sediment transport, and siltation of nearby water bodies.	- Install, maintain and regularly maintain and inspect erosion and sediment control measures prior to commencement of earthworks. - Maintain an accessible GRM	Review of grievance logs, visual inspection	Number of unresolved complaints related to muddy runoff. Visible sediment discharge to waterways.	0	Daily during construction	ADAPT Centre operators
	Operation of cooling systems, processing equipment, generators, and transportation activities may increase energy consumption and greenhouse gas emissions	- Utilize energy-efficient equipment - Install solar energy systems where feasible - Conduct preventive maintenance - Monitor energy consumption.	Review of energy monitoring records	Annual energy consumption per unit of production or volume of products processed	No increasing trend without corresponding increase in production	Annual during operation	ADAPT Centre operators
	Construction activities, earthworks, and material transport may generate dust emissions, which may affect air quality and cause nuisance to nearby communities, workers, crops, and other sensitive receptors.	Implement dust suppression measures such as water spraying, covering of stockpiles and haul trucks, and good housekeeping practices.	Methodology should be compliant with RA 8749	TSP concentration within the construction site and nearby sensitive receptors	Compliant with RA 8749	Semi-annual until construction ends	ADAPT Centre operators
	Use of construction equipment and movement of vehicles may generate elevated noise levels, which may disturb nearby communities, workers, schools, health facilities, and other sensitive receptors.	- Restrict construction hours during daytime, as possible - Maintain equipment - Implement community notification procedures. - Implement and maintain an accessible GRM.	Measure of noise level using noise meter	Noise emission within the construction site and nearby sensitive receptors	Compliant with NPCC Standards	Monthly until construction ends	ADAPT Centre operators
	Improper handling of fuels, oils, lubricants, chemicals, solid waste, and hazardous waste may result to soil contamination	- Implement waste management plans - Provide designated storage areas - Implement spill prevention and response procedures - Waste will be regularly collected by DENR-accredited waste transporters and treatment facilities for proper treatment and disposal	Review of waste records	Percentage of wastes managed through accredited facilities	100%	Daily during construction and operation	ADAPT Centre operators
	Discharge of untreated domestic wastewater generated by workers may result to contamination of receiving water bodies.	- Provide adequate sanitation facilities with water-tight septic tanks. - Septic tanks should be regularly desludged for proper treatment and disposal.	Site inspection	Number of incidents of untreated wastewater discharge to the environment	0	Daily during construction and operation	ADAPT Centre operators

Component/Output	Environmental & Social Risks	Mitigation Measures	Monitoring Method/Location	Parameters/Indicators	Detection limit/Threshold	Frequency/Timeline	Person Responsible
	Disposal of untreated wastewater generation from cleaning and maintenance activities of cold chain storage may cause pollution of nearby water bodies	- Ensure proper drainage and wastewater disposal; - Maintain septic tanks or wastewater treatment systems; - Avoid direct discharge to water bodies - Use environmentally friendly and non-toxic cleaning agents, where feasible.	Grab sampling of effluent	Color, temperature, pH, COD, TSS, ammonia, oil and grease	Compliant with the general effluent standards of DAO 2016-08 and DAO 2021-19	Quarterly during operation	ADAPT Centre operators
	Leakage of refrigerants from cold storage and cooling systems may contribute to greenhouse gas emissions and may pose health and safety risks to workers during operation and maintenance activities	- Conduct regular leak detection and maintenance - Use environmentally acceptable refrigerants.	Review of leak inspection reports	Leak incidents	0	Monthly during operation	ADAPT Centre operators
	Water abstraction for facility operations may reduce water availability for other users and nearby ecosystems.	- Secure applicable water permits - Monitor water use - Install water-saving technologies and reuse systems where feasible.	Review of water consumption logs; meter readings; water monitoring reports	Water extraction rate	Within the allowable extraction rate based on water permit	Monthly during operation	ADAPT Centre operators
	Improper management of food-processing waste, spoiled produce, packaging waste, wastewater, and organic residues generated during operation may cause odor, pest infestation, and pollution of soil and water resources.	- Implement waste segregation, recycling, composting, residue recovery, and wastewater management measures. - Prioritize beneficial use of organic residues. - Implement and maintain an accessible GRM.	Review of grievance logs	Number unresolved valid complaints from the community regarding odor, pest infestation, and pollution of soil and water resources	0	Daily during operation	ADAPT Centre operators
			Site inspection	Foul odor	No foul odor	Daily during operation	
	Construction activities and vehicle movement may cause injuries or accidents involving workers and nearby communities.	- Implement Contractor Health and Safety Plan, traffic management measures, emergency preparedness, and community safety measures. - Implement and maintain an accessible GRM.	Review of incident and accident reports	Project-related incidents or accidents within the community	0	Monthly during construction	ADAPT Centre operators
	Operation of equipment and facilities may pose occupational hazards to the workers, including machine-related injuries, electrical hazards, slips, falls, and food-processing risks.	- Implement OHS Management Plan - Provide PPE - Conduct safety training - Establish emergency response procedures.	Review of safety inspection reports; incident reports	Lost-time incidents	0	Monthly during operations	ADAPT Centre operators
	Improper storage, processing, or handling of products may result in food contamination and spoilage.	Implement food safety protocols, sanitation procedures, hygiene standards, traceability systems, and regular inspections.	Review of grievance logs	Food contamination incidents attributable to Centre operations	0	Monthly during operations	ADAPT Centre operators
	Excavation activities may result to accidental discovery of archaeological materials, cultural artifacts, or culturally significant resources	- Implement Chance Find Procedure - Stop work upon discovery and coordinate with relevant authorities immediately	Review of Chance Find reports; archaeological clearance; consultation records.	Chance find incidents managed according to procedure.	100%	Right after occurrence	ADAPT Centre operators
	Poor labor practices of the contractor may result to unsafe working conditions, GBV/SEAH, discrimination, child labor, or forced labor.	- Include labor, OHS, non-discrimination, and child/forced labor requirements in all contracts - Establish worker grievance mechanisms	Labor compliance audits; contractor reports; worker grievance records; OHS reports.	Labor complaints and GBV/SEA/SH incidents	No unresolved cases	Daily during construction and operation	ADAPT Centre operators
Component 3: INVEST – Inclusive Financing for Vegetables and Fruits Value-Chain Enhancement and Sustainable Transformation							
Output 3.1: ADAPT to Farm CRA Programme implemented with selected Small and Micro-Cooperatives, combining close support for climate-risk informed CRA business planning and demo farming to deliver practical experience, and tangible on-farm adaptation benefits through the application of technically sound CRA solutions under real farming conditions	Vulnerable groups, women, IPs, and small and micro cooperatives may have limited participation in CRA planning and beneficiary selection processes, which may result in unequal access to project benefits, grants, technical assistance, and adaptation opportunities.	- Conduct inclusive and culturally appropriate consultations - Disclose project information and eligibility criteria - Implement transparent beneficiary selection and equitable benefit-sharing mechanisms - Maintain minimum participation targets in project consultations, planning, training, and decision-making activities of at least: Female: 30%, youth: 20%, PWD: 30%, IP: 15% - Implement and maintain accessible GRM.	Review of action plan	% of adaptation priorities reflecting the needs of women, senior citizen, youth, IP and other vulnerable groups	100%	Prior finalization of CRA	PMU, Environmental, Gender and Social Safeguards Specialist,
	Proposed CRA interventions may adversely affect environmentally sensitive areas, natural habitats, or biodiversity if environmental considerations are not adequately incorporated during planning and site selection.	- Conduct environmental and biodiversity screening for all proposed CRA interventions and demonstration farm sites prior to approval. - Apply exclusion criteria for protected areas, critical habitats, KBAs, and environmentally sensitive areas.	Review of CRA	Demo-farming activities approved within protected areas, KBAs, or critical habitats	0	Prior approval	PMU, Environmental, Gender and Social Safeguards Specialist

Component/Output	Environmental & Social Risks	Mitigation Measures	Monitoring Method/Location	Parameters/Indicators	Detection limit/Threshold	Frequency/Timeline	Person Responsible
		Integrate biodiversity-friendly agricultural practices and ecosystem-based adaptation measures into CRA Business Plans.					
	Demo-farming activities within ancestral domains may affect customary practices, resource use, or culturally significant areas.	- Conduct site validation with NCIP and affected ICCs/IPs; secure FPIC and Certificate of Precondition where required - Prepare and implement an IPP if required - Establish culturally appropriate grievance mechanisms.	Review of FPIC documentation; Certificate of Precondition; NCIP endorsements; IPP (if required).	Percentage of demo-farming activities located within ancestral domain secured CP from NCIP	100%	Prior to approval	PMU, Environmental, Gender and Social Safeguards Specialist
			Review of grievance logs	Number of unresolved grievances from IP	0	Quarterly or based on Project M&E	
	Selection of demonstration farm sites may affect existing land uses, farming activities, or livelihood sources if site suitability and land-use arrangements are not properly assessed.	- Apply exclusion criteria to avoid sites with displacement impacts - Conduct land due diligence and stakeholder consultation - Secure voluntary land-use agreements.	Review of land ownership documents; land-use agreements; due diligence reports; consultation records.	Percentage of demo-farming activities that resulted to involuntary resettlement or physical and economical displacement	0	Prior to approval	PMU, Environmental, Gender and Social Safeguards Specialist
	Improper use, handling, storage, or disposal of fertilizers, pesticides, and related farm inputs may pose risks to human health and result in contamination of soil and water resources.	- Train all participating farmers on Integrated Pest Management (IPM), Good Agricultural Practices (GAP), safe handling of agrochemicals, and emergency response procedures prior to field implementation. - Require the use of appropriate PPE during chemical handling and application. - Establish designated storage areas for agrochemicals and provide spill response materials where applicable. - Prohibit improper disposal, reuse and open dumping of pesticide containers and ensure compliance with applicable DENR requirements.	Review of incident and accident reports	Number of agrochemical-related incidents.	0	Daily during operation	Cooperatives
	Generation of organic wastes and crop residues may result in odor, pest infestation, or localized pollution if not properly managed.	- Require participating farms to implement composting, mulching, residue incorporation, or other beneficial reuse practices. - Prohibit open burning of crop residues. - Monitor waste management practices during regular farm visits and technical support activities. - Implement and maintain accessible GRM.	Review of grievance logs	Valid complaints from the community regarding odor, pest infestation, and pollution of soil and water resources	0	Daily during operation	Cooperatives
			Site inspection	Foul Odor	No foul odor	Daily during operation	
	Excessive abstraction and inefficient use of water for irrigation may place pressure on local water resources and reduce water availability for other users.	- Secure applicable water permits - Promote water-efficient irrigation systems, irrigation scheduling, soil moisture monitoring, rainwater harvesting, and water conservation practices. - Require participating farms to monitor irrigation water use and adopt water-saving measures appropriate to local conditions. - Ensure applicable water permits are secured where required by regulation.	Review of water consumption logs; meter readings; water monitoring reports	Water extraction rate	Within the allowable extraction rate based on water permit	Monthly during operation	Cooperatives

5.4 Institutional Arrangements

194. The ESMP shall be implemented through the overall project governance and management structure established for ADAPT Mindanao. Responsibility for ESMP implementation will be shared among UNIDO as the Adaptation Fund Multilateral Implementing Entity (MIE), MinDA as the principal national executing partner, the Project Management Unit (PMU), Executing Entities, contractors, specialized technical service providers, grant beneficiaries, and participating cooperatives, depending on the nature of the activity and associated environmental and social risks.
195. UNIDO, as the MIE, shall provide overall implementation oversight to ensure compliance with the AF ESP, UNIDO Environmental and Social Safeguards Policy, Gender Policy, and applicable national regulations. UNIDO shall provide safeguards oversight, quality assurance, fiduciary supervision, monitoring and evaluation oversight, and review of safeguards performance throughout project implementation. UNIDO shall review safeguards reports, monitor compliance with approved safeguards instruments, and ensure that environmental and social risks are adequately managed and reported to the Adaptation Fund.
196. As the principal national executing partner, MinDA shall support the integration of environmental and social safeguards into project implementation and facilitate coordination among government agencies, LGUs, cooperatives, and other stakeholders. MinDA shall support compliance with national regulatory requirements and facilitate the resolution of implementation issues requiring inter-agency coordination.
197. The Project Steering Committee (PSC) shall provide strategic oversight of ESMP implementation and ensure that environmental, social, gender, and inclusion commitments are integrated into project implementation. The PSC shall review safeguards performance as part of the Project Performance Reports and provide guidance on corrective actions where necessary. The PSC shall also oversee the implementation of the ESMP, ESMF, GAP, and GRM.
198. The Gender, Inclusion and Social Safeguards Advisory Committee (GISAC) shall serve as the project's advisory body on environmental and social safeguards, gender equality, social inclusion, Indigenous Peoples, grievance management, and benefit-sharing. The committee shall review safeguards monitoring results, identify emerging risks, recommend corrective measures, and provide guidance on the implementation of the ESMP, GAP, IP requirements, and stakeholder engagement activities.
199. The PMU shall be responsible for day-to-day coordination of ESMP implementation. The PMU shall ensure that environmental and social requirements are integrated into annual work plans, procurement processes, contracts, grant agreements, training activities, infrastructure development, and demonstration farm implementation. The PMU Environmental, Gender and Social Safeguards Specialist shall serve as the focal person for safeguards implementation and shall be responsible for:
- Coordinating environmental and social screening of all proposed activities;
 - Ensuring implementation of ESMP, ESMF, GAP, IP-related requirements, and GRM;
 - Reviewing safeguards compliance of contractors, service providers, and grant beneficiaries;
 - Conducting site inspections and safeguards monitoring;
 - Maintaining safeguards records and reporting systems;
 - Managing grievance redress and incident reporting processes;
 - Preparing safeguards monitoring reports for submission to the PSC and UNIDO; and
 - Coordinating corrective actions where non-compliance is identified.
200. The participating cooperatives and/or LGUs, as local implementing partners and project beneficiaries, shall be primarily responsible for the day-to-day implementation of the ESMP associated with their activities. Their responsibilities shall include implementation of mitigation and monitoring measures, securing and maintaining applicable permits and regulatory clearances, implementation of occupational health and safety measures, conduct of stakeholder engagement activities, operation of the project-level GRM, and submission of environmental and social monitoring reports to the PMU. They shall also ensure that contractors and workers comply with the ESMP and applicable environmental, health, safety, and labor requirements.

201. Contractors and subcontractors engaged during project implementation shall comply with the requirements of the ESMP and all applicable environmental, health, safety, and labor regulations. This shall include implementation of occupational health and safety procedures, waste management measures, pollution prevention and control measures, community health and safety measures, labor management requirements, traffic and site safety measures, and emergency preparedness and response procedures. Contractors shall designate focal persons responsible for environmental, health, safety, and social compliance during project implementation and shall coordinate regularly with the PMU and project beneficiaries on safeguard-related matters.
202. Relevant national government agencies, LGUs, community organizations, and other stakeholders may support ESMP implementation through regulatory oversight, technical assistance, monitoring, stakeholder engagement, coordination, and capacity-building activities. Regular coordination meetings, monitoring activities, inspections, and reporting mechanisms shall be conducted to support effective implementation of the ESMP and continuous improvement of environmental and social performance throughout the Project lifecycle.

5.5 Capacity Building and Training

203. To support effective implementation of the ESMP and ensure compliance with the AF ESP and UNIDO OS, capacity-building and training activities shall be conducted for the PMU, participating cooperatives and/or LGUs, contractors, workers, and other relevant stakeholders throughout the Project lifecycle. Table 5-6 presents the proposed capacity building/training needed to strengthen the capacity of the LGUs and cooperatives in implementing the ESMP.
204. Considering that the Project involves agricultural and climate adaptation interventions, the capacity-building program shall focus on strengthening institutional, environmental, social, and occupational health and safety competencies necessary for the implementation and monitoring of safeguard measures at the subproject level.
205. Training activities shall be conducted prior to project implementation and periodically throughout the Project lifecycle, depending on project activities and identified capacity needs. Refresher trainings and toolbox meetings may also be conducted regularly for workers and contractors. Training attendance, topics covered, and participant records shall be documented and maintained by the PMU and participating cooperatives and/or LGUs.
206. The PMU, with support from UNIDO and relevant government agencies, shall oversee the implementation of the capacity-building program and ensure that adequate technical support and resources are provided to implementing partners to strengthen compliance with the ESMP, AF ESP, and UNIDO Operational Safeguards throughout project implementation.

Table 5-6: Proposed Capacity Building and Training for ESMP Implementation

Capacity Building / Training Topic	Key Topics Covered	Target Participants
Environmental and Social Safeguards Orientation	• Overview of Adaptation Fund ESP • UNIDO OS; • ESMP requirements; • Roles and responsibilities; • Safeguard compliance and reporting requirements • Contractor Environmental and Social Compliance	PMU, MinDA, Cooperatives, LGUs, contractors, Environmental and Social Safeguards Officers
Environmental Management and Compliance	• Waste management; • Refrigerants and hazardous materials Management • Pollution prevention; • Erosion and sediment control; • Water conservation; • Biodiversity protection; • Environmental monitoring and reporting	PMU, Cooperatives, LGUs, Contractors
Labor Management and Workers' Welfare	• Core labor standards • Grievance mechanism • Code of conduct	PMU, Cooperatives, LGUs, Contractors
Occupational Health and Safety (OHS)	• Safe work practices • Emergency response	PMU, Cooperatives, LGUs, Contractors
Community Health and Safety	• Community safety measures • Communicable disease prevention; • Traffic and transport safety; • Emergency preparedness and response	PMU, Cooperatives, LGUs, Contractors
Stakeholder Engagement and Consultation	• Stakeholder engagement activities	PMU, MinDA, Cooperatives, LGUs
Grievance Redress Mechanism (GRM)	• GRM procedures; • Complaint resolution and reporting	PMU, MinDA, Cooperatives, LGUs
GBV/SEA/SH Awareness and Prevention	• Gender sensitivity; • Prevention of GBV/SEA/SH; • Survivor-centered approach; • Confidential reporting procedures	PMU, contractors, Cooperatives, LGUs
Indigenous Peoples and Vulnerable Groups Inclusion	• Cultural sensitivity • FPIC principles • Inclusive engagement approaches • Preparation and implementation of Indigenous Peoples Plan	PMU, LGUs, MinDA, Cooperatives
Emergency Preparedness and Response	• Emergency response procedures	PMU, Contractors, Cooperatives, LGUs
Monitoring and Reporting	• Environmental and social monitoring procedures	PMU, MinDA, Cooperatives, LGUs

6 Stakeholder Engagement and Information Disclosure

207. This section presents the conducted and planned engagement activities with various stakeholders throughout the duration of the ADAPT Mindanao Project. Stakeholder engagement will be carried out in accordance with national regulations and Adaptation Fund requirements, including the application of Free, Prior, and Informed Consent (FPIC), where applicable. Engagement activities will be designed to be inclusive, culturally appropriate, and accessible, with due consideration to timing, location, language, and communication methods. All inputs will be documented and incorporated into project decision-making and mitigation planning.

6.1 Stakeholder Mapping and Analysis

208. During the project preparation stage, relevant stakeholders were initially identified for engagement to ensure inclusive participation and consultation. The stakeholders include those who are involved with the project in different ways: those directly or indirectly engaged in the outcomes of project implementation; those directly or indirectly participating in the project; and those with a capacity to influence and decide on project implementation and outcomes. The stakeholders are categorized into two broad groups: Project-affected Parties (PAPs) and Other Interested Parties.

209. **Project-affected Parties.** These include individuals, groups, and communities who may be directly or indirectly affected by the Project, such as, but not limited to:

- a. Project beneficiaries
- b. Directly affected communities, households, landowners who may experience physical or economic displacement and other potential adverse impacts from project activities;
- c. Project workers whose health, safety, and working conditions may be affected;
- d. Communities, local businesses, and institutions (i.e., schools, churches, hospitals or health care facilities) near construction areas that are exposed to potential construction- and operation-related impacts, such as noise, vibration, traffic disruption, community health and safety risks, and changes in access or mobility associated with the project; and
- e. Marginalized and vulnerable groups (i.e., indigenous peoples, senior citizen, women, youth, pregnant women, PWDs).

210. **Other Interested Parties.** These refer to individuals, communities, groups, or institutions, including both natural and legal entities, that have an interest in the Project but may not be directly affected in the same manner as the PAPs. These will also include stakeholders from whom baseline environmental and social data, technical information, and local knowledge will be requested to support impact assessment, alternatives analysis, and development of mitigation measures. Engagement with these stakeholders will support both data gathering and validation of assessment findings. **Table 6-1** lists down the initially identified other interested parties for this Project.

Table 6-1: Other Interested Parties initially identified for the Project

Category	Specific Entities / Agencies / Offices / Departments / Organizations
National Government Agencies (Regional, Provincial, and Satellite Offices)	• Mindanao Development Authority (MinDA) • Department of Environment and Natural Resources (DENR) and its concerned bureaus/attached agencies, particularly: - o Environmental Management Bureau (EMB) - o Land Management Bureau (LMB) - o Biodiversity Management Bureau (BMB) - o Climate Change Service (CCS) - o Provincial Environment and Natural Resources Office (PENRO) and Community Environment and Natural Resources Office (CENRO) • National Commission on Indigenous Peoples (NCIP) - o NCIP Region X (Northern Mindanao) - o NCIP Region XI (Davao) - o NCIP Region XII (SOCCSKSARGEN) - o NCIP Community Service Centers (CSCs) • Department of Agriculture (DA) • Department of Trade and Industry (DTI) • Department of Labor and Employment (DOLE) • Department of Science and Technology (DOST) – Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA)

Category	Specific Entities / Agencies / Offices / Departments / Organizations
	Department of Economy, Planning and Development (DepDev)
Concerned Provincial, City/Municipal, and Barangay Local Government Units (LGUs)	Site No 1: Midsayap - Provincial LGU of Cotabato (North Cotabato) - Municipal LGU of Midsayap - Barangay Agriculture, Bual Sur, or Poblacion 5 (Component 2) - Barangay Bitoka (Component 3) Site No 2: Talakag - Provincial LGU of Bukidnon - Municipal LGU of Talakag - Barangay 5 (Pob.) (Component 2) - Barangay Miarrayon (Component 3) Site No. 3: Compostela - Provincial LGU of Davao de Oro - Municipal LGU of Compostela - Baranga Ngan (Component 2) - Barangay Poblacion (Component 3) Site No. 4: Sto. Tomas - Provincial LGU of Davao del Norte - Municipal LGU of Santo Tomas - Barangay Bobongon (Component 2) - Barangay New Visayas (Component 3) Site No. 5: Paquibato (Davao City) - Provincial LGU of Davao del Sur - City LGU of Davao - Barangay Malabog (Component 3)
Financing Institutions and Development Partners	- Adaptation Fund (AF) - UNIDO - Participating rural finance actors, cooperative banks, public finance actor and relevant concessional finance programmes
Other Project Partners and Related Entities	- Contractors, subcontractors, and suppliers - Utilities (water, power) service providers - Local people's organizations (POs), civil society organizations (CSOs), and non-governmental organizations (NGOs) - Transport groups and logistics operators - Academic institutions

6.2 Stakeholder Engagement Plan

^{211.} Stakeholder engagement for the Project will be undertaken in accordance with the principles of meaningful consultation under the AF ESP and UNIDO OS 11. Meaningful consultation under the Project will be guided by the following principles:

- Engagement will begin early to inform project planning and design;
- Consultation will be transparent, inclusive, and undertaken in a manner free from coercion, intimidation, discrimination, or reprisal;
- Stakeholders will be provided opportunities to raise concerns and provide feedback on project risks, impacts, and proposed mitigation measures;
- Stakeholder feedback will be considered and, where appropriate, reflected in project design and management measures;
- Engagement will continue throughout the project cycle as risks, impacts, and opportunities evolve; and
- Consultation approaches will be tailored to stakeholder characteristics and needs, including use of separate discussions or targeted engagement where appropriate.

^{212.} Various stakeholder engagement methods and tools will be employed to support information disclosure, consultation, data gathering, and feedback, as discussed below. The selection and application of methods and tools will be proportionate to the nature and scale of E&S risks and impacts, the purpose of engagement, and stakeholder-specific needs. Multiple methods may be used in combination to support meaningful, inclusive, and continuous stakeholder engagement throughout the Project lifecycle.

213. **Public Consultations.** Public consultations will serve as a primary mechanism for disclosing project information and obtaining stakeholder feedback on the Project, including design features, anticipated impacts, and mitigation measures. Public consultations will provide a platform for two-way dialogue and collective discussion of issues raised by affected communities and interested stakeholders. Consultations will be scheduled at times and locations that maximize accessibility for vulnerable groups, ensuring provisions such as sign language interpreters, accessible venues for PWDs, and, where culturally appropriate, separate consultation spaces for women to encourage uninhibited participation.
214. For consultations with ICCs/IPs the FPIC process under NCIP Administrative Order No. 3, Series of 2012, will be observed.
215. **Focus Group Discussions (FGDs).** FGDs will be used to facilitate more focused discussions with specific stakeholder groups, including affected households, vulnerable groups, businesses, institutions, and other PAPs. This method allows for more in-depth discussion of stakeholder concerns, perceptions, and priorities, and may help surface issues that may not emerge in larger public consultations. Separate FGDs may be conducted where appropriate to support inclusive participation.
216. **Key Informant Interviews (KIIs).** KIIs will be undertaken with selected stakeholders, such as government agencies, LGUs, POs, CSOs, and other sector representatives. KIIs will support both consultation and collection of baseline information relevant to the ESIA.
217. **Household Interviews and Surveys.** Household interviews or surveys may be conducted, where relevant, to gather socio-economic information, understand stakeholder perceptions, support social baseline studies, and inform impact assessment and mitigation planning. These engagements will be particularly important in areas affected by land acquisition or livelihood impacts.
218. **Flyers, Public Notices, and Information Materials.** Flyers, public notices, fact sheets, posters, and similar materials may be used to support information disclosure and communicate key project information, consultation schedules, construction notices, safety information, and grievance channels. These tools provide accessible means of disseminating information to a broader audience and may complement face-to-face engagement.
219. **Technical Meetings and Coordination Meetings.** Meetings with government agencies, utilities, LGUs, and other institutional stakeholders will be used to support coordination, technical discussions, data requests, and validation of project information and assessment findings.
220. **Validation Meetings and Feedback Sessions.** Validation meetings may be conducted to present findings from baseline studies or impact assessments, verify information with stakeholders, and discuss proposed management and mitigation measures. These sessions support transparency and help ensure stakeholder views are considered.
221. **Digital and Other Communication Platforms.** Where appropriate, digital platforms such as project websites, social media, email, SMS advisories, or other electronic means may be used to supplement stakeholder engagement and support ongoing disclosure of project information.

Table 6-2: Stakeholder Engagement Plan for the Project Preparation and Pre-Construction Phase

Stakeholder Name and Type	Engagement Topic	Engagement Method	Location	Timeline	Responsibility
Project-affected Persons (PAPs)					
Project beneficiaries • Coop members and officials • Other farmers cooperatives, farmers, and farm workers in the locality	• Project overview and E&S requirements • Potential project impacts and corresponding mitigating measures • Grievance redress mechanism	Public consultations, FGDs	Coop headquarters	Project Preparation; ESIA Preparation	Project Team
Directly affected communities, households, landowners	• Project overview and E&S requirements • Potential project impacts and corresponding mitigating measures • Land acquisition process and entitlements • Grievance redress mechanism	Public consultations, FGDs, KIIs, household interviews and surveys	Barangay hall / Community assembly area, house-to-house	ESIA Preparation	Project Team
Marginalized and vulnerable groups (i.e., indigenous peoples, senior citizen, women, youth, pregnant women, PWDs)	• Project overview and E&S requirements • Potential project impacts and corresponding mitigating measures • Grievance redress mechanism	Public consultations, FGDs	Barangay hall / Community assembly area	ESIA Preparation	Project Team
Other Interested Parties					
MinDA	• Project technical information and site details • ESIA findings • Project E&S requirements and safeguards commitments	Technical / Coordination Meetings	Agency's office, online	Project Preparation; ESIA Preparation	Project Team
DENR Regional Offices X, XI, and XII and PENROs/CENROs; DENR-EMB Regional Offices X, XI, and XII	• Project technical information and site details for scoping and validation • Project environmental safeguards requirements • Relevant ESIA findings • Consultation process information	Technical / Coordination / Validation Meetings	Agency's office, online	Scoping; ESIA Preparation	Project Team
NCIP Regional Offices X, XI, and XII	• Project technical information and site details for scoping and validation • Project IP safeguards requirements • Consultation process information • Grievance redress mechanism	Technical / Coordination / Validation Meetings	Agency's office, online	Scoping; ESIA Preparation	Project Team
DA Regional Offices X, XI, and XII	• Project overview and E&S requirements • Opportunities for collaboration	Technical / Coordination Meetings	Agency's office, online	ESIA Preparation	Project Team

Stakeholder Name and Type	Engagement Topic	Engagement Method	Location	Timeline	Responsibility
DTI Regional Offices X, XI, and XII	- Project overview and E&S requirements - Opportunities for collaboration	Technical / Coordination Meetings	Agency's office, online	ESIA Preparation	Project Team
DOLE Regional Offices X, XI, and XII	- Project overview and E&S requirements - Labor and employment-related data and concerns	Technical / Coordination Meetings	Agency's office, online	ESIA Preparation	Project Team
DOST-PAGASA Mindanao Regional Services Division	- Project overview and E&S requirements - Climate and hazard data - Opportunities for collaboration	Technical / Coordination Meetings	Agency's office, online	ESIA Preparation	Project Team
DepDev Regional Offices X, XI, and XII	- Project overview and E&S requirements - Alignment with regional development plans	Technical / Coordination Meetings	Agency's office, online	ESIA Preparation	Project Team
Provincial LGUs of Bukidnon, Davao de Oro, Davao del Norte, Davao del Sur, and Cotabato (North Cotabato)	- Project overview and E&S requirements - Alignment with provincial development plans, programs, and activities	Technical / Coordination Meetings, KIIs	Agency's office, online	ESIA Preparation	Project Team
City/Municipal LGUs of Talakag, Compostela, Santo Tomas, Davao, and Midsayap	- Project overview and E&S requirements - Alignment with city/municipal development plans, programs, and activities - Request for available information on the environmental and socio-economic conditions in the locality - Relevant ESIA findings - Consultation process information - Grievance redress mechanism	Technical / Coordination / Validation Meetings, KIIs, Data Requests	City/Municipal Hall, online	Scoping; ESIA Preparation	Project Team
Host Barangays	- Project overview and E&S requirements - Alignment with barangay development plans, programs, and activities - Request for available information on the environmental and socio-economic conditions in the locality - Relevant ESIA findings - Consultation process information - Grievance redress mechanism	Public consultations, FGDs, Data Requests	Barangay hall, community assembly area	ESIA Preparation	Project Team
Financing Institutions and Development Partners (AF, UNIDO, other participating finance banks)	- Project technical information and site details - ESIA findings - Project E&S requirements and safeguards commitments	Technical / Coordination Meetings	Agency's office, online	Project Preparation; ESIA Preparation	Project Team

Stakeholder Name and Type	Engagement Topic	Engagement Method	Location	Timeline	Responsibility
Other Project Partners and Related Entities - Contractors, subcontractors, and suppliers - Utilities (water, power) service providers - Local POs, CSOs, and NGOs - Academic institutions	- Project overview and E&S requirements - Consultation process information - Grievance redress mechanism - Opportunities for collaboration	Public consultations, FGDs, KIIs, Technical / Coordination Meetings	-	ESIA Preparation	Project Team

Table 6-3: Stakeholder Engagement Plan for the Construction Phase

Stakeholder Name and Type	Engagement Topic	Engagement Method	Location	Timeline	Responsibility
Project-affected Persons (PAPs)					
Project beneficiaries • Coop members and officials • Other farmers cooperatives, farmers, and farm workers in the locality	• Construction work schedules and planned activities • Grievance redress mechanism	Meetings, Information Materials	Coop headquarters	Construction	Project Team
Directly affected communities, households, landowners	• Construction work schedules and planned activities • Access disruptions and traffic advisories • Mitigation measures for construction impacts • Grievance redress mechanism	Public Notices and Information Materials	Barangay hall, house-to-house	Construction	Project Team
Project workers	• Labor, occupational health and safety requirements • Worker grievance redress mechanism	Toolbox Meetings, Information Materials	Project site	Construction	Project Team
Communities, local businesses, and institutions (i.e., schools, churches, hospitals or health care facilities) near construction areas	• Construction work schedules and planned activities • Access disruptions and traffic advisories • Mitigation measures for construction impacts • Grievance redress mechanism	Public Notices and Information Materials	Barangay hall, house-to-house	Construction	Project Team
Marginalized and vulnerable groups (i.e., indigenous peoples, senior citizen, women, youth, pregnant women, PWDs)	• Construction work schedules and planned activities • Access disruptions and traffic advisories • Mitigation measures for construction impacts • Grievance redress mechanism	Public Notices and Information Materials	Barangay hall, house-to-house	Construction	Project Team
Other Interested Parties					
DENR-EMB Regional Offices X, XI, and XII	• Construction monitoring reports	Report Submission	-	Construction	Project Team
DOLE Regional Offices X, XI, and XII	• Labor and employment-related concerns	Coordination Meetings	Agency's office, online	Construction	Project Team

Stakeholder Name and Type	Engagement Topic	Engagement Method	Location	Timeline	Responsibility
City/Municipal LGUs of Talakag, Compostela, Santo Tomas, Davao, and Midsayap	- Construction progress updates - Compliance monitoring results	Coordination Meetings, Flyers, Public Notices and Information Materials	City/Municipal Hall, online	Construction	Project Team
Host Barangays	- Construction progress updates - Compliance monitoring results	Meetings, Flyers, Public Notices and Information Materials	Barangay hall / Community assembly area	Construction	Project Team
Financing Institutions and Development Partners (AF, UNIDO, other participating finance banks)	- Construction monitoring reports - Compliance and safeguards performance updates - Progress on environmental and social commitments	Report Submission	-	Construction	Project Team
Contractors, subcontractors, and suppliers	- Environmental and social obligations - Mitigation commitments and monitoring requirements - Stakeholder and grievance management protocols	Technical / Coordination Meetings	-	Construction	Project Team
Utilities (water, power) service providers	- Service continuity arrangements - Construction interface requirements	Technical / Coordination Meetings	-	Construction	Project Team
Local POs, CSOs, and NGOs	- Construction monitoring updates - Responses to stakeholder concerns - Grievance redress mechanism	Meetings, Public Notices and Information Materials	-	Construction	Project Team

6.3 Information Disclosure

222. Stakeholders will be provided access to relevant project information as early as possible in the project cycle and within a timeframe that enables meaningful consultation and informed participation. Information disclosed will be proportionate to the nature and scale of project risks and impacts, appropriate to stakeholder needs, and updated as the Project progresses.
223. Information will be disclosed in forms and languages understandable and accessible to stakeholders, using culturally appropriate and gender-responsive methods and considering any specific communication needs of vulnerable or disadvantaged groups, particularly those who may be differentially or disproportionately affected or may face barriers to participation due to language, literacy, gender, age, disability, mobility, ethnicity, or other factors. Disclosure materials may be adjusted as project risks and impacts are further refined and as stakeholder information needs evolve.
224. Information to be disclosed may include, but is not limited to, the following:
- a. Project information, design and alternatives
 - b. Duration of the project activities
 - c. ESMP including E&S plans – IPP, SWMP, HWMP
 - d. Stakeholder engagement process
 - e. Grievance mechanism
 - f. Project implementation updates
225. Information disclosure and consultation will be undertaken as an iterative and continuous process throughout project preparation, review, and approval, implementation, and monitoring.

7 Grievance Redress Mechanism (GRM)

7.1 Project-level GRM

226. A project-level grievance redress mechanism (GRM) must be established to provide affected communities, project beneficiaries, workers, cooperatives, Indigenous Peoples, women, vulnerable groups, and other stakeholders with accessible and transparent channels to raise concerns, complaints, feedback, or suggestions related to the planning, design, implementation, and operation of the Project.
227. The GRM aims to:
- Provide a fair, transparent, and timely process for resolving grievances;
 - Promote trust and accountability between the Project and stakeholders;
 - Ensure that concerns of vulnerable and marginalized groups are heard and addressed;
 - Prevent escalation of conflicts through early resolution of issues;
 - Improve project implementation through stakeholder feedback; and
 - Ensure compliance with the Adaptation Fund Environmental and Social Policy and national regulations.

7.1.1 Scope of the GRM

228. The GRM may receive and address concerns related to:
- Access to project benefits and services;
 - Selection of beneficiaries;
 - Exclusion or discrimination concerns;
 - Labor and working conditions;
 - Occupational health and safety;
 - Environmental impacts (waste, pollution, erosion, water use, etc.);
 - Community health and safety;
 - Concerns involving vulnerable groups and Indigenous Peoples

- Gender-related concerns and Gender-Based Violence (GBV), Sexual Exploitation and Abuse (SEA), and Sexual Harassment (SH);
- Conduct of project workers or contractors;
- Procurement-related concerns;
- Damage to crops, property, or livelihoods;
- Stakeholder consultation and information disclosure issues; and
- Other project-related concerns raised by stakeholders.

229. The GRM shall not impede access to judicial or administrative remedies available under Philippine laws.

7.1.2 Guiding Principles

230. The GRM shall be guided by the following principles:

- Accessibility – Multiple channels shall be available for submitting grievances, including options suitable for vulnerable groups and remote communities.
- Transparency – Processes and timelines shall be clearly communicated to stakeholders.
- Confidentiality – Sensitive complaints, particularly GBV/SEA/SH-related cases, shall be handled confidentially.
- Non-retaliation – Complainants shall not be subjected to retaliation or discrimination.
- Fairness and impartiality – Complaints shall be assessed objectively and without bias.
- Timeliness – Complaints shall be resolved within reasonable and defined timelines.
- Cultural appropriateness – Processes involving Indigenous Peoples shall consider customary decision-making structures and cultural sensitivities.
- Survivor-centered approach – GBV-related cases shall prioritize safety, confidentiality, consent, and referral to appropriate support services.

7.1.3 GRM Structure

231. At the community or cooperative level, grievances may initially be raised through:

- Barangay officials;
- Cooperative focal persons;
- Indigenous Peoples leaders or councils;
- Community facilitators;
- Farmers' associations; or
- Project field coordinators.

232. The Environmental, Gender and Social Safeguards Specialist of the PMU will be responsible for receiving, recording, tracking, and coordinating grievance resolution. Received grievances shall be referred to the Gender, Inclusion and Social Safeguards Advisory Committee to provide guidance and recommendations on how to resolve the grievance.

233. The PMU shall maintain a centralized grievance database and monitoring system. A sample grievance register template is in Annex 4.

5. Grievance uptake channels

234. Grievances may be submitted through any of the following channels:

- Verbal complaints during consultations or meetings;
- Written complaint forms;
- Suggestion boxes at project sites or cooperative offices;
- Mobile phone or SMS;
- Email;
- Social media or official project communication channels;

- Barangay or LGU offices;
- Cooperative representatives; and
- Dedicated hotline, if available.

235. Anonymous complaints may also be accepted and assessed.

236. Information about the GRM, including contact details and procedures, shall be disclosed during consultations and through IEC materials translated into local languages where necessary.

7.1.4 GRM Procedure

237. The following are the steps for the project-level GRM. Figure 7-1 presents the grievance handling process and reporting channels.

Step 1. Receive and Register Complaints

238. Grievances may be submitted through multiple channels to ensure accessibility for all stakeholders, including vulnerable and marginalized groups. Complaints may be submitted through:

- E-mail or official project website/platform;
- Phone call, SMS, or hotline;
- Formal letter or written complaint form;
- In-person meetings during consultations, barangay meetings, or cooperative engagements;
- Through barangay officials, cooperative representatives, IP leaders, or community focal persons.

239. All grievances received shall be recorded in the Grievance Registry. Information to be documented includes:

- Date received;
- Name and contact details of complainant (unless anonymous);
- Nature of complaint;
- Location of concern;
- Requested action or resolution; and
- Classification of grievance.

240. Anonymous complaints may also be accepted and assessed.

Step 2. Acknowledge Receipt, Screen for Eligibility, and Assign Responsible Staff

241. Upon receipt of the complaint, the complainant shall be informed that the grievance has been received and will be processed. An acknowledgment shall be provided within five (5) working days.

242. The grievance shall then be screened to determine:

- Whether the complaint is project-related;
- The type and severity of the concern;
- Whether immediate action is required; and
- The appropriate staff or unit responsible for handling the case.

243. Depending on the nature of the complaint, the grievance may be assigned to:

- Gender, Inclusion and Social Safeguards Advisory Committee
- Indigenous Peoples Focal Person;
- Pollution Control Officer;
- Safety Officer; or
- Relevant contractor, cooperative, or LGU representative.

244. Sensitive cases, particularly those related to GBV/SEA/SH, shall be immediately reported to UNIDO and shall be handled and resolved exclusively by UNIDO in accordance with applicable survivor-centered and confidentiality protocols.

245. For grievances involving Indigenous Peoples:

- Traditional conflict resolution processes and customary structures shall be respected;
- NCIP and IP leaders may be involved, when appropriate;

- Complaints may be submitted in local dialects;
- FPIC-related concerns shall be handled consistent with IPRA and NCIP procedures.

Step 3. Assess the Complaint, Propose Solutions, and Respond to the Complainant

246. The assigned staff member(s) shall assess the grievance, coordinate with concerned parties, and conduct validation or investigation, as necessary.
247. Based on the assessment, appropriate corrective actions or solutions shall be proposed. The complainant shall be informed of the findings, proposed actions, and expected timeline for resolution.
248. The Project shall aim to resolve simple grievances within fifteen (15) working days and more complex cases within thirty (30) working days, depending on the nature of the concern.

Step 4. Implement Agreed Response or Alternative Solutions

249. Once the complainant agrees with the proposed resolution, the Project shall implement the agreed corrective actions within the committed timeline.
250. If the complainant is not satisfied with the proposed resolution, alternative solutions or escalation procedures may be pursued, including elevation to higher project management levels or referral to appropriate government agencies.

Step 5. Resolve and Close the Grievance Case

251. A grievance shall be considered closed once:
- The agreed corrective action has been implemented;
 - The complainant confirms satisfaction with the resolution; or
 - Reasonable efforts to resolve the grievance have been exhausted.
252. The resolution and closure status shall be documented in the Grievance Registry. Records of grievances, actions taken, and resolutions shall be maintained by the PMU for monitoring and reporting purposes.
253. Summary information on grievances received and resolved shall be included in project monitoring reports while ensuring confidentiality of sensitive cases.

7.1.5 Monitoring and Reporting

254. The PMU shall maintain a grievance database and regularly monitor:
- Number and type of grievances received;
 - Status of grievances;
 - Resolution timelines;
 - Recurrent issues or trends; and
 - Satisfaction of complainants.
255. Summary information on grievances and resolutions shall be included in Project monitoring reports while maintaining confidentiality of sensitive cases.

7.1.6 Disclosure of the GRM

256. Information on the GRM shall be disclosed through:
- Community consultations;
 - IEC materials;
 - Posters and signages;
 - Cooperative meetings;
 - Barangay assemblies;

- Social media and project communication platforms; and
- Training and orientation activities.

257. The GRM procedures and contact details shall be translated into local languages where necessary to ensure accessibility and understanding among affected communities.

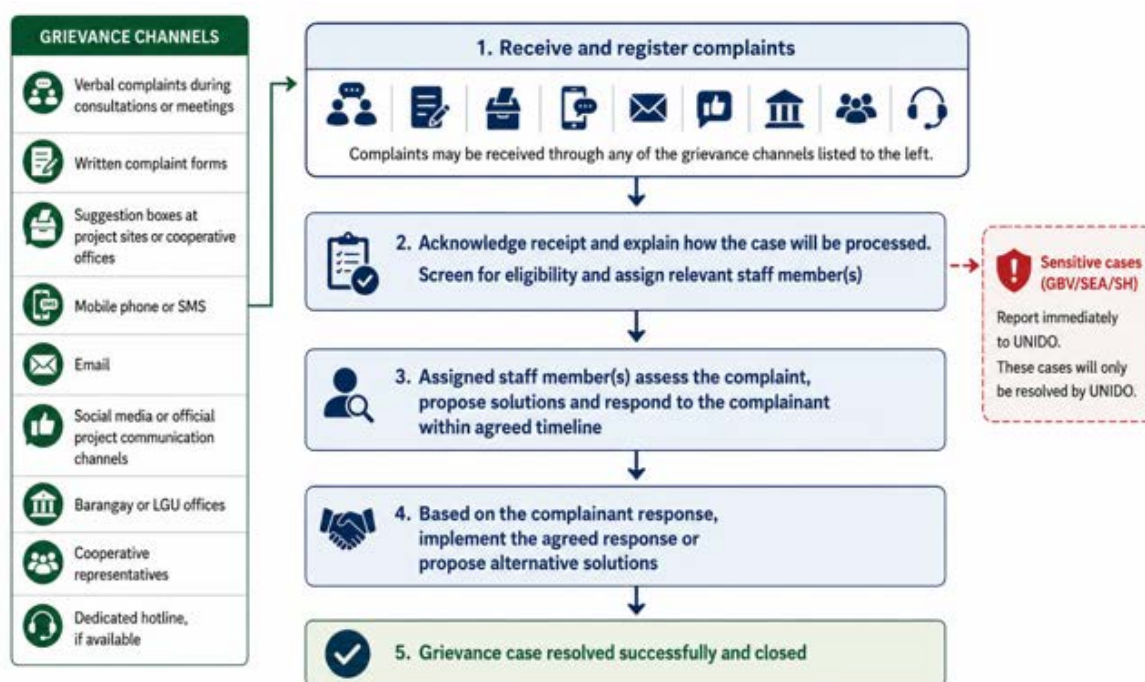


Figure 7-1: Project-level GRM

7.2 UNIDO GRM Access

258. The project/programme-level GRM is established to address concerns and complaints arising from project implementation. However, the availability of the project-level GRM does not prevent complainants from accessing the institutional grievance mechanism of UNIDO. Where grievances cannot be resolved satisfactorily at the local or project level, complainants may elevate their concerns through the UNIDO institutional grievance mechanism. The UNIDO mechanism complements, and does not replace, existing project-level, country-level, or national grievance systems.

259. UNIDO maintains a confidential grievance mechanism that allows stakeholders to report allegations of misconduct, as well as environmental and social concerns associated with UNIDO-supported projects. This mechanism is intended for cases that remain unresolved through the project-level GRM. Stakeholders may submit grievances through the procedures provided on the UNIDO website. All information submitted are handled by the Director of the Office of Evaluation and Internal Oversight confidentially and stored securely to protect the identity and privacy of complainants.

260. Any person, group, or community that may be affected by the environmental or social impacts of the Project may raise concerns or submit complaints through any of the grievance channels presented in Figure 7-2. **Error! Reference source not found..**

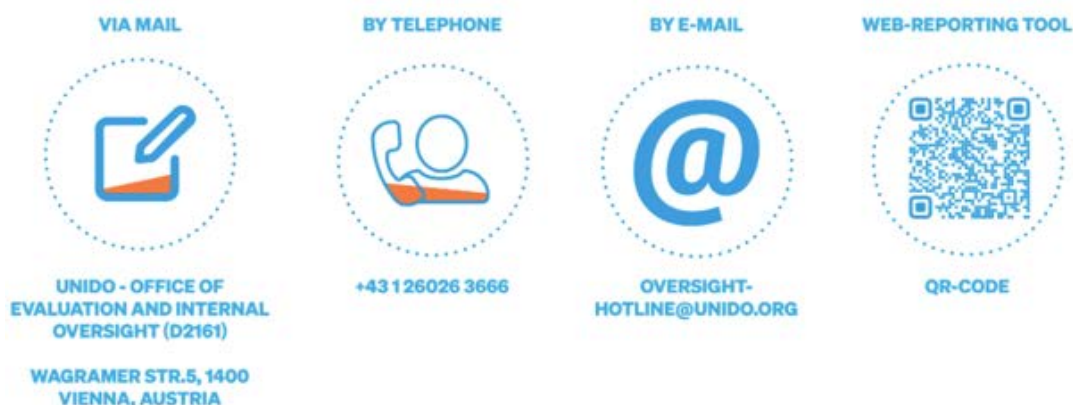


Figure 7-2: UNIDO Grievance Channels

7.3 Ad Hoc Complaint Handling Mechanism (ACHM)

261. In the event that a grievance cannot be resolved through the Project-level Grievance GRM, affected persons and communities may seek further recourse through the Adaptation Fund Ad Hoc Complaint Handling Mechanism (ACHM). The ACHM serves as an independent mechanism for receiving and addressing complaints concerning projects financed by the Adaptation Fund, particularly where concerns relate to non-compliance with the Adaptation Fund Environmental and Social Policy, Gender Policy, or other applicable Fund requirements.
262. The ACHM shall be considered a mechanism of last resort and may only be accessed after reasonable efforts have been made to resolve the grievance through the Project GRM and the grievance procedures of the Implementing Entity. If the parties are unable to reach a mutually satisfactory resolution within one year from the filing of the complaint through the Implementing Entity's grievance mechanism, complainants may submit their concerns to the ACHM for further review and consideration in accordance with the procedures established by the Adaptation Fund.
263. The Adaptation Fund Board Secretariat independently manages the process under the oversight of the Ethics and Finance Committee (EFC). Figure 7-3 provides the ACHM process.

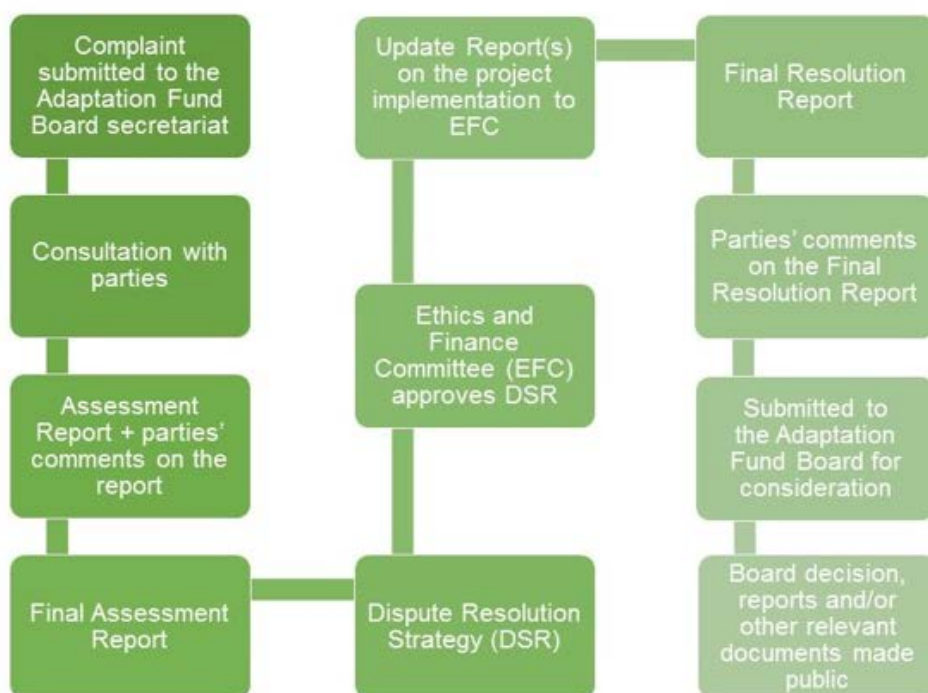


Figure 7-3: ACHM Process¹⁶

¹⁶ <https://www.adaptation-fund.org/projects-programmes/accountability-complaints/ad-hoc-complaint-handling-mechanism-achm/>



DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
KAGAWARAN NG KAPALIGIRAN AT LIKAS YAMAN



JUL 28 2026

THE ADAPTATION FUND BOARD
c/o Adaptation Fund Board Secretariat
Email: afbsec@adaptation-fund.org
Fax: 202 522 3240/5

Subject: Support for partial execution of UNIDO in Advancing Adaptation for Agro-industry and Post-harvest Transformation in Mindanao's fruit and vegetable value chains (ADAPT Mindanao)

In my capacity as the Primary Contact Point within the Designated Authority in the Philippines for the Adaptation Fund, I confirm the Government's support for the proposed partial execution role of the United Nations Industrial Development Organization (UNIDO) under the project.

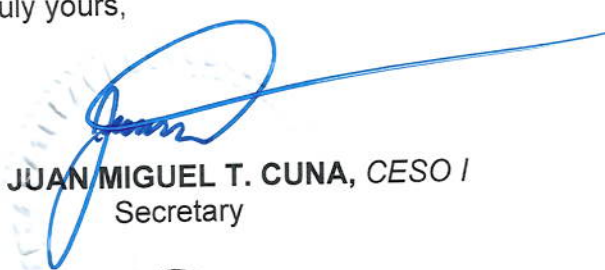
The Government of the Philippines (GoP) recognizes that selected project outputs require specialized technical functions directly linked to UNIDO's mandate, track record, and expertise, which includes agro-industrial and post-harvest transformation, climate-resilient value chains, quality assurance, safeguards integration, and fiduciary management. Accordingly, UNIDO's partial execution role is supported to ensure the effective delivery of these outputs, while promoting knowledge transfer systems and execution experience with Mindanao Development Authority (MinDA) and other national and sub-national partners over the project cycle.

The GoP further understands that UNIDO's partial execution responsibilities will be limited to the outputs assigned to it in the approved project document and implemented in complementarity with MinDA and the specialized executing entity to be selected for Project Output 3.1.

Accordingly, the GoP confirms its support for UNIDO's undertaking of the partial execution functions assigned to it under the ADAPT Mindanao project.

Thank you.

Very truly yours,


ATTY. JUAN MIGUEL T. CUNA, CESO I
Secretary



PH16/1341

Visayas Avenue, Diliman, Quezon City 1100, Philippines
www.denr.gov.ph





DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
KAGAWARAN NG KAPALIGIRAN AT LIKAS YAMAN



JUL 28 2026

THE ADAPTATION FUND BOARD

c/o Adaptation Fund Board Secretariat
Email: afbsec@adaptation-fund.org
Fax: 202 522 3240/5

Subject: Endorsement for Advancing Adaptation for Agro-industry and Post-harvest Transformation in Mindanao's fruits and vegetable value chains (ADAPT Mindanao)

In my capacity as the Primary Contact Point within the Designated Authority in the Philippines for the Adaptation Fund (AF), I confirm that the above project proposal is in accordance with the government's national priorities in implementing adaptation activities to reduce adverse impacts of, and risks posed by climate change in the island of Mindanao and aligned with the priorities of the Philippines' National Adaptation Plan 2023-2050.

Accordingly, I am pleased to endorse the above project proposal for support from the Adaptation Fund. If approved, the project will be implemented and executed by the United Nations Industrial Development Organization (UNIDO), the Mindanao Development Authority (MinDA), and a specialized executing entity to be selected for the execution of the project Output 3.1 prior to the AF Board's consideration.

Moreover, at the request of the Government of the Philippines, UNIDO will also act as a partial executing entity for selected outputs where specialized technical expertise or fiduciary risk management requirements justify direct UNIDO execution.

Thank you.

Very truly yours,


ATTY. JUAN MIGUEL T. CUNA, CESO I
Secretary



Visayas Avenue, Diliman, Quezon City 1100, Philippines
www.denr.gov.ph

