

AFB/PPRC.28/26 4 October 2021

Adaptation Fund Board
Project and Programme Review Committee
Twenty-eighth Meeting
Virtual meeting, 11-13 October 2021

Agenda Item 5 g)

PROPOSAL FOR CAMBODIA, VIET NAM

Background

- 1. The strategic priorities, policies and guidelines of the Adaptation Fund (the Fund), as well as its operational policies and guidelines include provisions for funding projects and programmes at the regional, i.e., transnational level. However, the Fund has thus far not funded such projects and programmes.
- 2. The Adaptation Fund Board (the Board), as well as its Project and Programme Review Committee (PPRC) and Ethics and Finance Committee (EFC) considered issues related to regional projects and programmes on a number of occasions between the Board's fourteenth and twenty-first meetings but the Board did not make decisions for the purpose of inviting proposals for such projects. Indeed, in its fourteenth meeting, the Board decided to:
 - (c) Request the secretariat to send a letter to any accredited regional implementing entities informing them that they could present a country project/programme but not a regional project/programme until a decision had been taken by the Board, and that they would be provided with further information pursuant to that decision

(Decision B.14/25 (c))

- 3. At its eighth meeting in March 2012, the PPRC came up with recommendations on certain definitions related to regional projects and programmes. However, as the subsequent seventeenth Board meeting took a different strategic approach to the overall question of regional projects and programmes, these PPRC recommendations were not included in a Board decision.
- 4. At its twenty-fourth meeting, the Board heard a presentation from the coordinator of the working group set up by decision B.17/20 and tasked with following up on the issue of regional projects and programmes. She circulated a recommendation prepared by the working group, for the consideration by the Board, and the Board decided:
 - (a) To initiate steps to launch a pilot programme on regional projects and programmes, not to exceed US\$ 30 million:
 - (b) That the pilot programme on regional projects and programmes will be outside of the consideration of the 50 per cent cap on multilateral implementing entities (MIEs) and the country cap;
 - (c) That regional implementing entities (RIEs) and MIEs that partner with national implementing entities (NIEs) or other national institutions would be eligible for this pilot programme, and

(d) To request the secretariat to prepare for the consideration of the Board, before the twenty-fifth meeting of the Board or intersessionally, under the guidance of the working group set up under decision B.17/20, a proposal for such a pilot programme based on consultations with contributors, MIEs, RIEs, the Adaptation Committee, the Climate Technology Centre and Network (CTCN), the Least Developed Countries Expert Group (LEG), and other relevant bodies, as appropriate, and in that proposal make a recommendation on possible options on approaches, procedures and priority areas for the implementation of the pilot programme.

(Decision B.24/30)

- 5. The proposal requested under (d) of the decision above was prepared by the secretariat and submitted to the Board in its twenty-fifth meeting, and the Board decided to:
 - (a) Approve the pilot programme on regional projects and programmes, as contained in document AFB/B.25/6/Rev.2:
 - (b) Set a cap of US\$ 30 million for the programme;
 - (c) Request the secretariat to issue a call for regional project and programme proposals for consideration by the Board in its twenty-sixth meeting; and
 - (d) Request the secretariat to continue discussions with the Climate Technology Center and Network (CTCN) towards operationalizing, during the implementation of the pilot programme on regional projects and programmes, the Synergy Option 2 on knowledge management proposed by CTCN and included in Annex III of the document AFB/B.25/6/Rev.2.

(Decision B.25/28)

- 6. Based on the Board Decision B.25/28, the first call for regional project and programme proposals was issued and an invitation letter to eligible Parties to submit project and programme proposals to the Fund was sent out on 5 May 2015.
- 7. At its twenty-sixth meeting the Board decided to request the secretariat to inform the Multi-lateral Implementing Entities and Regional Implementing Entities that the call for proposals under the Pilot Programme for Regional Projects and Programmes is still open and to encourage them to submit proposals to the Board at its 27th meeting, bearing in mind the cap established by Decision B.25/26.

(Decision B.26/3)

- 8. At its twenty-seventh meeting the Board decided to:
 - (a) Continue consideration of regional project and programme proposals under the pilot programme, while reminding the implementing entities that the amount set aside for the pilot programme is US\$ 30 million;
 - (b) Request the secretariat to prepare for consideration by the Project and Programme Review Committee at its nineteenth meeting, a proposal for prioritization among regional project/programme proposals, including for awarding project formulation grants, and for establishment of a pipeline; and
 - (c) Consider the matter of the pilot programme for regional projects and programmes at its twenty-eighth meeting.

(Decision B.27/5)

- 9. The proposal requested in (b) above was presented to the nineteenth meeting of the PPRC as document AFB/PPRC.19/5. The Board subsequently decided:
- a) With regard to the pilot programme approved by decision B.25/28:
 - (i) To prioritize the four projects and 10 project formulation grants as follows:
 - 1. If the proposals recommended to be funded in a given meeting of the PPRC do not exceed the available slots under the pilot programme, all those proposals would be submitted to the Board for funding;
 - 2. If the proposals recommended to be funded in a given meeting of the PPRC do exceed the available slots under the pilot programme, the proposals to be funded under the pilot programme would be prioritized so that the total number of projects and project formulation grants (PFGs) under the programme maximizes the total diversity of projects/PFGs. This would be done using a three-tier prioritization system: so that the proposals in relatively less funded sectors would be prioritized as the first level of prioritization. If there are more than one proposal in the same sector: the proposals in relatively less funded regions are prioritized as the second level of prioritization. If there are more than one proposal in the same region, the proposals submitted by relatively less represented implementing entity would be prioritized as the third level of prioritization:
 - (ii) To request the secretariat to report on the progress and experiences of the pilot programme to the PPRC at its twenty-third meeting; and
- b) With regard to financing regional proposals beyond the pilot programme referred to above:

- (i) To continue considering regional proposals for funding, within the two categories originally described in document AFB/B.25/6/Rev.2: ones requesting up to US\$ 14 million, and others requesting up to US\$ 5 million, subject to review of the regional programme;
- (ii) To establish two pipelines for technically cleared regional proposals: one for proposals up to US\$ 14 million and the other for proposals up to US\$ 5 million, and place any technically cleared regional proposals, in those pipelines, in the order described in decision B.17/19 (their date of recommendation by the PPRC, their submission date, their lower "net" cost); and
- (iii) To fund projects from the two pipelines, using funds available for the respective types of implementing entities, so that the maximum number of or maximum total funding for projects and project formulation grants to be approved each fiscal year will be outlined at the time of approving the annual work plan of the Board.

(Decision B.28/1)

- 10. At its thirty-first meeting, having considered the comments and recommendation of the Project and Programme Review Committee, the Adaptation Fund Board (the Board) decided:
 - (a) To merge the two pipelines for technically cleared regional proposals established in decision B.28/1(b)(ii), so that starting in fiscal year 2019 the provisional amount of funding for regional proposals would be allocated without distinction between the two categories originally described in document AFB/B.25/6/Rev.2, and that the funding of regional proposals would be established on a 'first come, first served' basis; and
 - (b) To include in its work programme for fiscal year 2019 provision of an amount of US\$ 60 million for the funding of regional project and programme proposals, as follows:
 - (i) Up to US\$ 59 million to be used for funding regional project and programme proposals in the two categories of regional projects and programmes: ones requesting up to US \$14 million, and others requesting up to US\$ 5 million; and
 - (ii) Up to US\$ 1 million for funding project formulation grant requests for preparing regional project and programme concepts or fully-developed project and programme documents.

(Decision B.31/3)

11. According to the Board Decision B.12/10, a project or programme proposal needs to be received by the secretariat no less than nine weeks before a Board meeting, in order to be considered by the Board in that meeting.

- 12. The following project pre-concept document titled "Increasing Climate Resilience in Food Systems through the Expansion of Smart (Peri-) Urban Agriculture" was submitted for Cambodia and Viet Nam by the United Nations Industrial Development Organization (UNIDO), which is a Multilateral Implementing Entity of the Adaptation Fund.
- 13. This is the first submission of the regional project pre-concept proposal, using the three-step submission process.
- 9. The current submission was received by the secretariat in time to be considered in the thirty-seventh Board meeting. The secretariat carried out a technical review of the project proposal, with the diary number AF00000269 and completed a review sheet.
- 10. In accordance with a request to the secretariat made by the Board in its 10th meeting, the secretariat shared this review sheet with UNIDO, and offered it the opportunity of providing responses before the review sheet was sent to the PPRC.
- 11. The secretariat is submitting to the PPRC the summary and, pursuant to decision B.17/15, the final technical review of the project, both prepared by the secretariat, along with the final submission of the proposal in the following section. In accordance with decision B.25.15, the proposal is submitted with changes between the initial submission and the revised version highlighted.



ADAPTATION FUND BOARD SECRETARIAT TECHNICAL REVIEW OF PROJECT/PROGRAMME PROPOSAL

PROJECT/PROGRAMME CATEGORY: Pre-Concept for a Regional Project

Countries/Region: Cambodia, Viet Nam

Project Title: Increasing Climate Resilience in Food Systems through the Expansion of Smart (Peri-)Urban Agriculture

Thematic focal area: Agriculture

Implementing Entity: United Nations Industrial Development Organization (UNIDO)

Executing Entities: Ministry of Agriculture, Forestry and Fisheries (Cambodia)

Ministry of Agriculture and Rural Development (Viet Nam)

AF Project ID: AF00000269

IE Project ID: Requested Financing from Adaptation Fund (US Dollars): 14,000,000

Reviewer and contact person: Dirk Lamberts Co-reviewer(s): Ulrich Apel

IE Contact Person(s): Zhengyou Peng

Technical Summary

The project "Increasing climate resilience in food systems through the expansion of smart (peri-)urban agriculture" aims to develop innovative adaptation strategies and measures through the expansion of smart (peri)-urban agriculture (UA) that will build the adaptive capacity of urban and peri-urban farmers, and strengthen the resilience of local food systems in Viet Nam and Cambodia, thereby contributing to food security in these countries. This will be done through the three components below:

Component 1: Building up an enabling environment at sectoral and institutional level (USD 1,500,000);

Component 2: Capacity development and knowledge management (USD 4,600,000);

<u>Component 3</u>: Technology uptake and enhanced market access of UA products through cooperating with farmer cooperatives and networks (USD 5,577,215).

Requested financing overview:

Project/Programme Execution Cost: USD 1,225,785

AFB/PPRC.28/26
Total Project/Programme Cost: USD 12,903,000
Implementing Fee: USD 1,097,000
Financing Requested: USD 14,000,000
The proposal includes a request for a Project Formulation Grant (PFG) of USD 20,000.
The initial technical review raised several issues, such as the description of the climate change challenges and how the project will address these, the added value of the regional approach and the level of innovation, as is discussed in the number of Clarification Requests (CRs) raised in the review.
The final review found that the proposal has not addressed all the CRs. Namely, issues remain related to the identified adaptation needs, the appropriateness of the proposed activities to address malnutrition among the rural poor, the risks of maladaptation, the feasibility of the proposed interventions, alignment with national policies, and the involvement of the IE in the execution of the project.

Date

17 September 2021

Review Criteria	Questions	Comments 25 August, 2021	Comments 17 September, 2021
Country Eligibil-	1. Are all of the participating coun-	Yes.	-
ity	tries party to the Kyoto Protocol?		
	2. Are all of the participating coun-	Yes. Both Viet Nam and Cambodia	CR 1: Not clear. The target area is
	tries developing countries partic-	are particularly vulnerable to the	now indicated on page 5, but
	ularly vulnerable to the adverse	adverse effects of climate change, in	information reflecting the
	effects of climate change?	part due to their geography and	considerable variation within the
		agriculture systems. However, the	area in climate change impacts and
		diversity of climate change	adaptation needs is lacking. Equally,
		vulnerabilities in both countries is not	different agriculture sub-sectors are
		well reflected in the pre-concept,	experiencing differential impacts and
		which would benefit from more	adaptation needs, and have already
		regional differentiation. Climate	shown great ability of adaptation and
		change impact issues are quite	transformation, possibly providing
		different between urban areas in	adaptation solutions at a much
		e.g., the north of Viet Nam compared	larger scale.

			ALD/LLING.20/20
		to those in the Mekong delta in both countries. Currently, the pre-concept proposal does not specify a target area for the project.	
		CR 1: Please provide an indication of the intended project areas and specify climate change vulnerabilities, adaptation needs and barriers to adaptation, accordingly.	
Project Eligibility	Have the designated govern- ment authorities for the Adapta- tion Fund from each of the par- ticipating countries endorsed the project/programme?	Yes. As per the endorsement letters dated 3 August 2021 (Cambodia) and 2 August 2021 (Viet Nam).	-
	2. Has the pre-concept provided necessary information on the problem the proposed project/programme is aiming to solve, including both the regional and the country perspective?	No. The information provided is incomplete and to some extent inadequate and inaccurate. Both countries are said to be "extremely vulnerable to food insecurity due to climate change impacts" and the lack of additionally available arable land. This does not reflect the food security situation in either country which are both considered by WFP to be very high in food security, with room for improvement in terms of dietary diversity. Both countries are net exporters of rice, with Viet Nam invariably among the world's largest. The main objective of the project to address food insecurity is not well	the project aims to address is not one of food availability or climate change but of poverty. The proposal does not demonstrate how the proposed interventions will address this poverty-malnutrition nexus from an adaptation needs perspective; on the contrary, the cost of the production factors for most of the proposed interventions are multiple times those of the current peri-urban and rural agriculture practices and value chains. These will not produce the cheap nutritious food that is needed, and as such maladaptation is a real risk in that the proposed activities will contribute to rising

linked to the description of the problem.

From the country perspectives, the climate change impacts are diverse. as are the adaptation challenges. This is not sufficiently clearly presented. Also, in parts of both countries, climate change impacts of the foreseeable future will remain dwarfed by the impacts of hydropower development in the GMS region, including inside Cambodia and Viet Nam, that directly exacerbate the mentioned climate change impacts in both countries. The proposal should provide further relevant information to present a more comprehensive description of the problems -and their drivers- the project will aim to address.

Other relevant aspects of the identified problem are not mentioned or addressed, such as the fact that currently, and certainly in Cambodia, most urban agriculture is carried out on an informal basis, typically with no ownership or secure tenure for any of the farmers of the land they work. Much of the cropping is done on river banks or in floodplains

urban food prices and add to the adaptation needs of the urban poor.

The risk of the proposed project to result in maladaptation is likely to materialize in a number of ways, including:

- involuntary resettlement of poor urban dwellers housing or farming on (temporarily) unoccupied city plots (the major issue of land security has not been addressed);
- conceptually, the approach to promote urban agriculture will add to the demand for urban land, and drive land prices up even further;
- the proposed high-technology, capital-intensive modern farming (vertical farms, precision farming) will not be accessible for the poor urban immigrant or dweller that the project intends to reach and may actually exacerbate access limitations they already experience;
- the envisaged all-season production, as has been demonstrated with e.g., irrigated rice in the region, invariably will require very high

in rural areas. Overall, the provided background information is more of a general nature, and the provided references have little specific information on urban agriculture and its relation to climate change and adaptation, and latest background references on Viet Nam and Cambodia. The problem that the project wants to solve needs to be better carved out, especially with regard to why (peri-jurban agriculture is a preferred solution compared to rural agriculture. CR 2: Please clarify in the preconcept proposal how the proposed solution compared to rural agriculture. CR 2: Please clarify in the preconcept proposal how the proposed solution compared to rural agriculture. No. The components are explained, however, based on a more specific sides in both countries; the project activities are excessively diverse and all grossly underfunded. Agriculture value chain development in Cambodia and Viet Nam has proven to be extremely costly, and there is no information to support the prospect that any of the value chain pilot activities we be sustained or replicated. CR 2: Please clarify in the preconcept proposal how the proposed solution will address the actual climate change impacts, within the broader context of a changing environment. No. The components are explained, however, based on a more specific			AFB/PPRC.28/26
broader context of a changing environment. 3. Have the project/programme objectives, components and financ- broader context of a changing environment. No. The components are explained, however, based on a more specific repeated for the allocation of		in rural areas. Overall, the provided background information is more of a general nature, and the provided references have little specific information (e.g., reference 2). The information should be backed up by more specific scientific information on urban agriculture and its relation to climate change and adaptation, and latest background references on Viet Nam and Cambodia. The problem that the project wants to solve needs to be better carved out, especially with regard to why (peri-)urban agriculture is a preferred solution compared to rural agriculture. CR 2: Please clarify in the preconcept proposal how the proposed solution will address the actual	inputs of water, fertilizer and pesticides, exacerbating the well-documented problem of widespread use of unregulated and most harmful pesticides in both countries; • the project activities are excessively diverse and all grossly underfunded. Agriculture value chain development in Cambodia and Viet Nam has proven to be extremely costly, and there is no information to support the prospect that any of the value chain pilot activities will
ing been clearly explained? problem analysis and barrier resources to capacity building and identification the components should further information on how the	. ,	broader context of a changing environment. No. The components are explained, however, based on a more specific problem analysis and barrier	repeated for the allocation of resources to capacity building and actual implementation. There is no

be elaborated in a way that directly proposed activities will effectively responds to the problem analysis. address the - overall poorly identified - adaptation needs. The Overall, the objectives and clarification provided leaves the components are focused on the adaptation outcome of the project enabling framework and capacity entirely dependent on the as yet building and only a modest amount unproven feasibility and profitability is for actual implementation, mainly of the type of urban agriculture through small pilots. It would need to activities proposed, and large-scale be better explained why this additional investments. approach is considered the best in the context. CR 3: Kindly reconsider the components of the proposal, in terms of how to best respond to the problem analysis and the approach that will be considered. 4. Has the project/programme been Partially. There is a major CR 4: Not clear. The postulation justified in terms of how: that high-tech urban agriculture will disconnect between food insecurity - it supports concrete adaptation issues in (peri-)urban areas in the address the malnutrition of the urban two countries and the proposed poor in the Mekong delta is not actions? - it builds added value through (high-tech) urban agriculture further substantiated. the regional approach? remedies. The dietary composition - it promotes new and innovative CR 5: Not clear. The project does concerns in both countries are not related to food production but reflect solutions to climate change adnot take into account the poverty and wealth disparities. As developmental differences between aptation? such, the envisaged urban the two countries and its large cities - it is cost-effective? - it is consistent with applicable agriculture activities, to the extent in the target area. Apart from the strategies and plans? fact that the selected target regions that they may ever be economically viable, will not provide affordable, in the two countries share certain - it incorporates learning and knowledge management? better and more diverse food for features, the regional justification remains undemonstrated. The

- it will be developed through a consultative process with particular reference to vulnerable groups, including gender considerations, in compliance with the Environmental and Social Policy of the Adaptation Fund?
- it will take into account sustainability?

those vulnerable groups that currently need it.

CR 4: Please clarify how the proposed activities will address food security issues in the two countries.

There is no evidence that the regional project contributes to one of the thematic focal areas of food security, disaster risk reduction and early warning systems, transboundary water management or that it promotes new and innovative solutions to climate change adaptation.

The pre-concept is silent on the selection criteria for the two countries. The added value of the regional approach in general and of this specific regional approach is unclear.

CR 5: Please explain why those two countries have been selected and why not others, e.g., Lao PDR, are included in the regional approach, and what the added value of the regional approach is.

The pre-concept also lacks information on the current baseline and on what urban agriculture practices and general context can be built.

proposal does not take into account the historical direction of transfer of technology, skills and knowledge from Viet Nam to Cambodia as is reflected e.g., in the recent development of extensive irrigated rice contract farming in the eastern provinces of Cambodia mostly destined for export to Viet Nam. The proposal also does not reflect the massive value chains that were developed in the Vietnamese part of the delta with export-oriented aquaculture.

CR 6: Not clear. The stated alignment with adopted national and sub-national urban and agriculture development policies and plans is not substantiated.

AFB/PPRC.28/26 Viet Nam and Cambodia both have an existing small-scale urban agriculture sector and thriving markets. **CR 6:** Please describe what works and what not in the sub-sector, and what added value the project will bring. While there are innovative elements in the implementation, the approach itself does not seem to be very innovative. E.g., the private sector engagement is limited to financing; this would need to be expanded to the training and capacity building approach, which should predominantly be run by the private sector as opposed to national training centres. The pre-concept is in line with general national strategies and plans, however, these are very general and it would be important to bring the pre-concept in line with more specific municipal plans/strategies, if possible. The planned 'eco-system' to connect stakeholder should rather be termed "platform" and include the private

proach.

sector in a multi-stakeholder ap-

5. Does the pre-concept briefly explain which organizations would be involved in the proposed regional project/programme at the regional and national/sub-national level, and how coordination would be arranged? Does it explain how national institutions, and when possible, national implementing entities (NIEs) would be involved as partners in the project?

Yes. The pre-concept provides an outline of the type of organisations that would be involved at the different levels. However, their identification is at a very general level, e.g., "international partners", "micro-finance institutions", "investors", "NGOs", etc. Neither country has an accredited NIE.

CR 7: Please provide some concrete examples of project partners.

Coordination arrangements are explained and do include involvement of the IE in an executing role. The Board in its decision B.18/30, decided that "execution services will only be provided by Implementing Entities on an exceptional basis and at the written request by the recipient country, involving designated authorities in the process, and providing rationale for such a request. The responsibility for these services shall be stipulated, their budget estimated in the fully developed project/programme document, and covered by the execution costs budget of the project/programme."

CR 8: Please clarify how the involvement of the IE in the execution of the

CR 7: Not clear. A 'tentative list of potential international/regional partners' is provided as a footnote, albeit in a generic manner without specifying for any of the potential partners what their contributions might be. As such, this seems to suggest that only limited consultations have informed the project design so far.

CR 8: Not clear. The rationale provided for the involvement of the IE in executing the project is clarified as to 'enable UNIDO to better perform the regional coordination function and procure relevant services'. The IE's abilities involved were assessed during accreditation and found to be adequate. Both executing entity ministries have extensive experience with the management of (very) large development investments, public and private, and with collaboration with international partners, including on global recruitment of service providers. No adequate justification to deviate from the principle of separation between implementing and execution services has been provided.

			AI D/I I I\C.20/20
		project complies with AF board decisions on the involvement of IEs in the execution of projects: https://www.adaptation-fund.org/wp-content/uploads/2017/11/OPG-AN-NEX-7-Project-Programme-Implementation-Approved-Oct-2017.pdf	
Resource Availa- bility	6. Is the requested project / programme funding within the funding windows of the programme for regional projects/programmes?	Yes.	-
	7. Are the administrative costs (Implementing Entity Management Fee and Project/ Programme Execution Costs) at or below 20 per cent of the total project/programme budget?	Yes. The execution cost is at 9.5% of the budget and implementing entity fees at 8.5%. Together, these administrative costs amount to 18% of the total budget. However, please do see CR 8.	Please refer to comment to CR8 above.
Eligibility of IE	8. Is the project/programme submit- ted through an eligible Imple- menting Entity that has been ac- credited by the Board?	Yes. UNIDO is an accredited multi- lateral implementing entity.	-



ADAPTATION FUND BOARD SECRETARIAT TECHNICAL REVIEW OF PROJECT/PROGRAMME PROPOSAL

PROJECT/PROGRAMME CATEGORY: Pre-Concept for a Regional Project

Countries/Region: Cambodia, Viet Nam

Project Title: Increasing Climate Resilience in Food Systems through the Expansion of Smart (Peri-)Urban Agricul-

ture

Thematic focal area: Agriculture Implementing Entity: UNIDO

Executing Entities: Ministry of Agriculture, Forestry and Fisheries (Cambodia)

Ministry of Agriculture and Rural Development (Viet Nam)

AF Project ID: AF00000269

IE Project ID: Requested Financing from Adaptation Fund (US Dollars): **14,000,000**

Reviewer and contact person: **Dirk Lamberts**Co-reviewer(s): **Ulrich Apel**

IE Contact Person(s): Zhengyou Peng

Technical Summary

The project "Increasing climate resilience in food systems through the expansion of smart (peri-)urban agriculture" aims to develop innovative adaptation strategies and measures through the expansion of smart (peri)-urban agriculture (UA) that will build the adaptive capacity of urban and peri-urban farmers, and strengthen the resilience of local food systems in Vietnam and Cambodia, thereby contributing to food security in these countries. This will be done through the three components below:

Component 1: Building up an enabling environment at sectoral and institutional level (USD 1,500,000);

Component 2: Capacity development and knowledge management (USD 4,600,000);

<u>Component 3</u>: Technology uptake and enhanced market access of UA products through cooperating with farmer cooperatives and networks (USD 5,577,215).

Requested financing overview:

	7.1.2.1.1.10.12.12
	Project/Programme Execution Cost: USD 1,225,785
	Total Project/Programme Cost: USD 12,903,000
	Implementing Fee: USD 1,097,000
	Financing Requested: USD 14,000,000
	The proposal includes a request for a project formulation grant of USD 20,000.
	The initial technical review raises several issues, such as the description of the climate change challenges and how the project will address these, the added value of the regional approach and the level of innovation, as is discussed in the number of Clarification Requests (CRs) raised in the review.
Date	25 August 2021

Review Criteria	Questions	Comments
	 Are all of the participating countries party to the Kyoto Protocol? 	Yes.
Country Eligibility	Are all of the participating countries developing countries particularly vulnerable to the adverse effects of climate change?	Yes. Both Viet Nam and Cambodia are particularly vulnerable to the adverse effects of climate change, in part due to their geography and agriculture systems. However, the diversity of climate change vulnerabilities in both countries is not well reflected in the pre-concept, which would benefit from more regional differentiation. Climate change impact issues are quite different between urban areas in e.g., the north of Viet Nam compared to those in the Mekong delta in both countries. Currently, the pre-concept proposal does not specify a target area for the project. CR 1: Please provide an indication of the intended project areas and specify climate change vulnerabilities, adaptation
		proposal does not specify a target area for the p CR 1: Please provide an indication of the intended

		AFB/PPRC.28/26
		lower Mekong river and Mekong delta, as this area is particularly vulnerable to climate change impacts ¹ including rising sea levels ² , floods, drought, saltwater intrusion, rising tidal surges, etc. which will not only destroy farmlands, infrastructure, crops and fisheries in the rural areas, but also damage traditional urban farms which grow staple food, vegetables, fruits, etc. Compounded with the climate change vulnerabilities is the increasing urbanisation in this area, which is undergoing a significant transformation in its economic structure - largely attributed to the intensification of relocation of manufacturing facilities out of China and the associated reorganisation of regional supply chains. In particular, when we look at already populous cities in the Mekong delta (also potential project sites), such as Phnom Penh (capital city of
		traditional urban farms which grow staple food, vegetables,
		Cambodia), Ho Chi Minh city (the largest city in Viet Nam)
		and Can Tho (the fourth largest city in Viet Nam), it is ex-
		pected that the further industrialisation process will be rap-
		idly catalysed there and move more people to big cities. Hence, in the face of an increasingly precarious agricultural
		sector exacerbated by climate change, it is a pressing chal-
		lenge for cities in the Mekong delta area to come up with a
		sustainable solution to provide sufficient, safe and affordable
		quality food to a growing urban population. Maintaining and upgrading the capability of cities to feed themselves is sug-
		gested as a strategy to hedge against climate change in-
		duced risks of supply shocks, rather than to optimize export
		processing oriented urban development only.
Project Eligibility	 Have the designated government authorities for the Adaptation Fund from each of the 	Yes . As per the endorsement letters dated 3 August 2021 (Cambodia) and 2 August 2021 (Viet Nam).
1 Toject Eligibility	participating countries endorsed the	(Cambodia) and 2 August 2021 (Viet Nam).

¹ https://www.nature.com/articles/s41467-019-11602-1 2 https://www.nature.com/articles/nclimate2469

project/programme?

2. Has the pre-concept provided necessary information on the problem the proposed project/programme is aiming to solve, including both the regional and the country perspective?

No. The information provided is incomplete and to some extent inadequate and inaccurate. Both countries are said to be "extremely vulnerable to food insecurity due to climate change impacts" and the lack of additionally available arable land. This does not reflect the food security situation in either country which are both considered by WFP to be very high in food security, with room for improvement in terms of dietary diversity. Both countries are net exporters of rice, with Viet Nam invariably among the world's largest. The main objective of the project to address food insecurity is not well linked to the description of the problem.

From the country perspectives, the climate change impacts are diverse, as are the adaptation challenges. This is not sufficiently clearly presented. Also, in parts of both countries, climate change impacts of the foreseeable future will remain dwarfed by the impacts of hydropower development in the GMS region, including inside Cambodia and Viet Nam, that directly exacerbate the mentioned climate change impacts in both countries. The proposal should provide further relevant information to present a more comprehensive description of the problems -and their drivers- the project will aim to address.

Other relevant aspects of the identified problem are not mentioned or addressed, such as the fact that currently, and certainly in Cambodia, most urban agriculture is carried out on an informal basis, typically with no ownership or secure tenure for any of the farmers of the land they work. Much of the cropping is done on river banks or in floodplains following receding flood levels, even in rural areas.

Overall, the provided background information is more of a general nature, and the provided references have little specific information (e.g., reference 2). The information should be backed up by more specific scientific information on urban agriculture and its relation to climate change and adaptation, and latest background references on Viet Nam and Cambodia.

The problem that the project wants to solve needs to be better carved out, especially with regard to why (peri-)urban agriculture is a preferred solution compared to rural agriculture.

CR 2: Please clarify in the pre-concept proposal how the proposed solution will address the actual climate change impacts, within the broader context of a changing environment.

RE 2: According to the widely accepted World Food Summit (1996) definition, food security exists "when all people, at all times, have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life". Therefore, food security is not only about providing adequate calories, but also about nutrition, safety, affordability and distribution. While Vietnam now produces more than enough calories for the whole population at a national level, significant food security issues remain. Malnutrition, anaemia and food safety are persistent issues, especially among pregnant women, children under five years of age, and people in disadvantaged regions³. Also in Cambodia, micronutrient

³https://www.aciar.gov.au/sites/default/files/legacy/vietnam food security policy web.pdf

deficiencies are widespread, and undernutrition remains a public health concern especially among children: 32 percent of children under 5 years are stunted, 24 percent are underweight, and 10 percent wasted⁴, and also cities harbor considerable segments of poor population. The objective of the project is to provide urbanintes in the two countries with access to sufficient calories and diverse nutrition while ensuring food safety and quality. In the project, a one-health approach (aiming to achieve optimal health outcomes, recognizing the interconnectedness of people, plants and animals and their shared environment) will be applied to address food safety concerns e.g. to respond to concerns of emerging zoonotic diseases or pesticide residues.

The proposed solutions aim to drive smart, pro poor and ecological urban agriculture, which can effectively help the agricultural sector in the two countries to adapt to the climate change impacts by creating an alternative, complementary and more resilient food system. Rural production and distribution of produce is increasingly affected by storms, rising sea levels, floods, saltwater intrusion, shifting seasonal patterns, droughts or water scarcity, resulting in temporary or permanent food scarcity and increases in food prices. This will mostly hit the urban poor, who are often located in the most vulnerable parts of cities and lacking the capacity to adapt to climate-related impacts and associated price spikes.

(Peri-)urban agriculture has been widely carried out along the Mekong river in Cambodia and Viet Nam, mostly on a small-scale and informal basis. These informal UA practices

⁴https://www.wfp.org/countries/cambodia

however could result in negative impacts on the urban environment, and lead to excessive water withdrawal for irrigation, driving land subsidence, soil erosion and pollution of groundwater if, for example chemical fertilizers and pesticides are over-used. While the specific UA baseline in pilot cities will be carved out, we have identified several general challenges faced by the two countries in the sub-sector, i.e., low technology levels and low productivity in traditional urban farms, low awareness of sustainable and safe agricultural practices, lack of government policies and incentivizing instruments to promote smart and sustainable UA, lack of multi-stakeholder coordination, limited access to knowledge and technologies, and limited investment in smart and sustainable/ecological UA.

The proposed solutions of developing smart, sustainable UA can help cities to become more resilient by reducing the vulnerability of the most at-risk urban groups and by strengthening community-based adaptive management through (I) diversifying urban food sources and enhancing the access to nutritious food especially for the urban poor; (ii) diversifying income opportunities of the urban poor, and functioning as a safety net in times of economic crisis; and (iii) being a source of innovation and learning about new strategies/technologies for intensive and inclusive, safe and quality food systems. Rather than focusing on isolated aspects of production only, this project aims for an integrated farm to fork strategy, minimizing climate impact risks along the entire food system.

UA also contributes to maintaining green open spaces and enhancing vegetation cover in the cities with climate adaptive and mitigation benefits, including reduced heat

	AFB/FFRG.20/20
	island effects, reduced impacts related to high rainfall through the storage of excess water, increased water interception and infiltration in green open spaces, reduction of storm water runoff and related flood risks, and more replenishment of groundwater; conservation of biodiversity, etc. Producing food in and close to the city also reduces energy footprint and food waste, shortens supply chains and stimulates productive use of organic residue and urban circularity. UA is hence increasingly considered a potential climate change and disaster risk reduction strategy. The Asian Cities Climate Change Resilience Network (ACCCRN) has included UA as an important strategy for building resilient cities — cities able to respond to, resist and recover from changing climate conditions ⁵ .
Have the project/programme objectives, components and financing been clearly explained?	No. The components are explained, however, based on a more specific problem analysis and barrier identification the components should be elaborated in a way that directly responds to the problem analysis. Overall, the objectives and components are focused on the enabling framework and capacity building and only a modest amount is for actual implementation, mainly through small pilots. It would need to be better explained why this approach is considered the best in the context. CR 3: Kindly reconsider the components of the proposal, in terms of how to best respond to the problem analysis and the approach that will be considered. RE 3: Based on the barriers identified in the prevalent UA practices in the two countries (in "Project Context"), we have

⁵https://journals.openedition.org/factsreports/5650

designed project activities accordingly, with the first two components focusing on an enabling framework and capacity building (accounting for approx. 52% of the total implementing cost), and the third component focusing on technology transfer & demonstration and financial access (accounting for 48% of the implementing cost). The allocation of budget is justified as follows: The promotion of smart UA is a knowledge and skill-driven occupation, which involves considerable amounts of innovation and uptake of industry 4.0 technologies and it is therefore crucial to first conduct capacity building - institutional capacities and the capacity of UA practioners through trainings, knowledge learning and sharing, etc., all of which require a considerable amount of financial inputs. In other words, a sound institutional framework and capacity building are the prerequisite for the uptake of smart UA technologies and practices. As for technology transfer and demonstration, the project funds can only provide seeds money within a limited duration. A wider and continual adoption and uptake has to rely on private investment, government finance and microfinancing, which can be leveraged by the project through component II and III. The project aims to enlarge the scope of demonstration/real implementation to the maximum extent possible in accordance to available funds and investments and through private sector partnerships.

- 4. Has the project/programme been justified in terms of how:
 - it supports concrete adaptation actions?
 - it builds added value through the regional approach?
 - it promotes new and innovative solutions to climate change adaptation?
 - it is cost-effective?

Partially. There is a major disconnect between food insecurity issues in (peri-)urban areas in the two countries and the proposed (high-tech) urban agriculture remedies. The dietary composition concerns in both countries are not related to food production but reflect poverty and wealth disparities. As such, the envisaged urban agriculture activities, to the extent that they may ever be economically viable, will not provide affordable, better and more diverse

- it is consistent with applicable strategies and plans?
- it incorporates learning and knowledge management?
- it will be developed through a consultative process with particular reference to vulnerable groups, including gender considerations, in compliance with the Environmental and Social Policy of the Adaptation Fund?
- it will take into account sustainability?

food for those vulnerable groups that currently need it.

CR 4: Please clarify how the proposed activities will address food security issues in the two countries.

There is no evidence that the regional project contributes to one of the thematic focal areas of food security, disaster risk reduction and early warning systems, transboundary water management or that it promotes new and innovative solutions to climate change adaptation.

RE 4: Food security and 'dietary composition concerns' obviously have economic dimensions to it, as e.g. in Phnom Phen households tend to spend close to 40% of disposable income on food⁶. Price hikes for food, which are expected to rise in frequency due to climate change impacts, will make urban populations in affected areas relatively poorer in purchasing power, and therefore less food secure. Since transport disruptions (e.g. due to flooding) are anticipated impacts, local production reduces such risks and empowers communities. (Peri-)urban farms, usually in smaller size in comparison to rural farms, often impels to produce more varieties of food, especially those with higher economic values such as vegetables and fruits. Please refer to RE 2 with regard to how UA can offer an innovative solution to address food security issues in cities in the Mekong delta.

The smart technologies to be used in UA farms are not necessarily costly, and particularly in the area of ICT, sensors and automation, a spectacular decline in costs was observed over the recent decades. While a complete set of

⁶ https://docs.wfp.org/api/documents/WFP-0000105975/download/

smart system for modern farms (e.g. vertical farms) can be beyond the reach of most farmers and often requires heavy private investment, simple smart technologies and equipment such as mobile phone connected sensors can be made affordable to vulnerable groups - whether through project direct fund or micro-financing institutions and investors. Both costly and affordable technologies can help improve the productivity and quality of food significantly and provide valuable information to farmers. Different economically viable solutions will be mapped out and examined against the concrete local context (output 3.1).

The pre-concept is silent on the selection criteria for the two countries. The added value of the regional approach in general and of this specific regional approach is unclear.

CR 5: Please explain why those two countries have been selected and why not others, e.g., Lao PDR, are included in the regional approach, and what the added value of the regional approach is.

The pre-concept also lacks information on the current baseline and on what urban agriculture practices and general context can be built. Viet Nam and Cambodia both have an existing small-scale urban agriculture sector and thriving markets.

RE 5: The project focuses its interventions in cities located in the lower Mekong river and Mekong delta which are naturally connected by the shared geography, and hence the choice of Viet Nam and Cambodia. Also, UNIDO has an active presence in these two countries, working on associated

topics (e.g. providing technical assistance to the fisheries sector of Cambodia through the CAPFISH project with EU funding⁷, and strengthening agro-value chains in Viet Nam through the establishment of Centres of Excellence⁸. The added value of the regional approach has also further been explained in the pre-concept in Part II – "Project components".

CR 6: Please describe what works and what not in the subsector, and what added value the project will bring. While there are innovative elements in the implementation, the approach itself does not seem to be very innovative. E.g., the private sector engagement is limited to financing; this would need to be expanded to the training and capacity building approach, which should predominantly be run by the private sector as opposed to national training centres.

The pre-concept is in line with general national strategies and plans, however, these are very general and it would be important to bring the pre-concept in line with more specific municipal plans/strategies, if possible.

The planned 'eco-system' to connect stakeholder should rather be termed "platform" and include the private sector in a multi-stakeholder approach.

RE 6: A description of what works and what not in the UA sub-section in the two countries and the specific areas will be provided in the next stage of project development. The suggestion of engaging the private sector more in capacity

⁷ https://open.unido.org/projects/KH/projects/180039#!

⁸ https://open.unido.org/projects/VN/projects/180124

building activities will be incorporated and UNIDO has considerable experience in working with SMEs and on public private development partnerships, e.g. on skills development ⁹.

The proposal is also in line with specific municipal and sectoral plans including Ho Chi Minh city's municipal agricultural digital transformation strategy, Can Tho's strategic plan to become a smart city by 2025 via integrating smart approaches in urban management including in food safety and land use management. While specific municipal strategies of Phnom Penh is yet to be identified, the proposal can contribute to Cambodia's Agricultural Sector Strategic Development Plan (2019–2023) with the aim of enhancing agricultural productivity, diversification, and commercialization, as well as the Master Plan for Crop Production in Cambodia for 2030¹⁰ which puts a focus on value chain prioritisation, technology access and transfer, sustainable farming practices, food safety and etc.

5. Does the pre-concept briefly explain which organizations would be involved in the proposed regional project/programme at the regional and national/sub-national level, and how coordination would be arranged? Does it explain how national institutions, and when possible, national implementing entities (NIEs) would be involved as partners in the project?

Yes. The pre-concept provides an outline of the type of organisations that would be involved at the different levels. However, their identification is at a very general level, e.g., "international partners", "micro-finance institutions", "investors", "NGOs", etc. Neither country has an accredited NIE.

CR 7: Please provide some concrete examples of project partners.

RE 7: A tentative list of potential international/regional part-

⁹ https://lkdfacility.org/

¹⁰http://extwprlegs1.fao.org/docs/pdf/cam173300.pdf

ners include: the Mekong River Commission, the Asia Institute of Technology, the Asia Development Bank, Centre for Sustainable Agricultural Mechanization of ESCAP, Wageningen University & Research (Netherlands), etc. In addition to national executing entities and municipal government agencies, local partners include the Farmer and Nature Net (Cambodia), Federation of Cambodian Farmer Organisation for Development, Association Sustainable Agriculture Communities (Cambodia), Royal University of Agriculture (Cambodia), Viet Nam Farmers' Union, Thang University - Smart Agriculture Research and Application Team (Viet Nam), the Ho Chi Minh City Agriculture Extension Center, Fablabs in Phnom Penh and Hanoi. Suitable micro-finance institutions, investors and technology providers will be identified at the project formulation stage.

Coordination arrangements are explained and do include involvement of the IE in an executing role. The Board in its decision B.18/30, decided that "execution services will only be provided by Implementing Entities on an exceptional basis and at the written request by the recipient country, involving designated authorities in the process, and providing rationale for such a request. The responsibility for these services shall be stipulated, their budget estimated in the fully developed project/programme document, and covered by the execution costs budget of the project/programme."

CR 8: Please clarify how the involvement of the IE in the execution of the project complies with AF board decisions on the involvement of IEs in the execution of projects: https://www.adaptation-fund.org/wp-content/up-loads/2017/11/OPG-ANNEX-7-Project-Programme-Imple-mentation-Approved-Oct-2017.pdf

		AI B/I I NO.20/20
	the reg vices (fied int execut which UNIDO and in which quest k	UNIDO's executing role will enable it to better perform gional coordination function and procure relevant serveg. training and knowledge management) from qualiternational/regional entities. In addition, whereas the ting agencies in the countries are national ministries might limit their interaction with the private sector, is well positioned to bring together all stakeholders particular build partnership with the private sector is vital for the success of this project. The written reby the recipient countries will be materialised and decresponsibilities and budget estimation will be elaboration project formulation.
	6. Is the requested project / programme funding within the funding windows of the programme for regional projects/programmes?	
Resource Availa- bility	Entity Management Fee and Project/ implem Programme Execution Costs) at or below 20 admini per cent of the total project/programme	The execution cost is at 9.5% of the budget and nenting entity fees at 8.5%. Together, these istrative costs amount to 18% of the total budget. Ver, please do see CR 8.
Eligibility of IE	8. Is the project/programme submitted through an eligible Implementing Entity that has been accredited by the Board? Yes. Utily.	JNIDO is an accredited multilateral implementing en-



PRE-CONCEPT FOR A REGIONAL PROJECT/PROGRAMME

PART I: PROJECT/PROGRAMME INFORMATION

Title of Project/Programme: Increasing climate resilience in food systems through •

the expansion of smart (peri-)urban agriculture

Countries: Cambodia, Viet Nam

Thematic Focal Areaⁱ: Urban development / Food security Agriculture

Type of Implementing Entity: MIF Implementing Entity: UNIDO

Executing Entities:

Country A: Ministry of Agriculture and Rural Development, Viet Nam Country B: Ministry of Agriculture, Forestry and Fisheries, Cambodia

Amount of Financing Requested: 14 million USD

Project Background and Context:

Cambodia and Viet Nam are located in the Greater Mekong Subregion (GMS), which is recognized identified as one of the most vulnerable regions to climate change. Threats include changing river flow dynamics due to glacial melting upstream and changes in monsoon dominated precipitation patterns, aggravated by hydropower constructions along the entire riveriv. Particularly in the lowlands and towards the Mekong delta (which sinks at about 1cm annually), land subsidence, amplifies the effect of sea-level risev. Flooding frequencies, saltwater intrusion and tidal amplitude are expected to rise sharply by 2030, however also more serious droughts will affect agricultural productionvi.

A Much like other GMS countries, agriculture is the a cornerstone of economic growth in Cambodia and Viet Nam and overall output has expanded considerably over the most recent decades. -However, the countries are extremely vulnerable to progress in addressing food insecurity are at riskvii due to climate change impacts and the fact that most arable land is already used. The region is expected to face not only much severer droughts by 2030, but also more flooding and greater saltwater intrusion as sea levels rise with temperature viii-Rising temperatures and changes in the intensity of rainfall, river flow, floods, and droughts will not only destroy farmlands, infrastructure, crops and fisheries in the rural areas, but also damage traditional (peri-)urban farms which grow staple food, vegetables, fruits, etc. In addition, the continuous development in hydropower infrastructure in both countries is making the river system more vulnerable to climate change impacts ix-

Another notable disrupter driving force in this regard, are is the progressing urbanizsation trends themselvesrate. A UN rReports suggests that by 2040, the urbanizsation rates in Cambodia and Viet Nam and Cambodia will respectively reach around 35 and 52% % and 35% respectively (up from now 24 and 37%). Urban expansion encroaches particularly on most productive arable

Formatted: Indent: Left: 0", Hanging: 2.56"

Formatted: Font: Arial, 11 pt, English (United States)

landsxi. While food security involves economic and geographic distributional factors beyond simple food availabilityxii, overall Increased population growth and urbaniszation will further strain the food systems and challengequestion the capacity of the rural-based food systems to support urbanites populations. In particular, tThe overall impacts of climate hazards will disproportionately affect the urban poor if food prices increase due to damaged infrastructure, er-lowered agricultural productivity or similar supply shocks. Already during the current covid-19 related lockdowns, food availability and diversity in urban areas was significantly reduced and aAs a result, vulnerable communities are faced with food shortages and diminished livelihoods. Overall, for both Cambodia and Viet Nam, the agricultural sector is particularly vulnerable to the impacts of climate change, and adaptation strategies are urgently needed. Urban agriculture (UA) is one of the "outside-the-box" solutions[™] gaining increasing attention from governments and policy-makersxvi. UA can be defined as "agricultural production in urban and peri-urban areas for food and other uses, the related transport, processing and marketing of the agricultural produce and non-agricultural services provided by the urban farmers"xvii. The practice #-is highly diverse, ranging from community gardens, rooftop gardens, vertical farms, aquaponics farms, etc.

UA aided with smart technologies can increase food security and livelihood strategies (especially for the urban poor) and the self-reresilience liance of cities (1) creating diversified local food production systems that are less vulnerable to climate change impacts; (2) creating modern farms (e.g. vertical farms) in under-utilisedunder-utilized or recovered urban and peri-urban spaces; (3) enabling all seasonyear round stable food production; and (4) enabling precision farming which enhances productivity, food safety and optimisesoptimizes the use of land, water*ik, pesticide, fertilizer. The ongoing transformation of distribution systems (street-vendors and wet markets, supermarkets and convenient stores, online marketing and distribution) provides opportunities for innovation to improve climate resilience. All of these directly contribute to the improvement of food security, income and livelihoods of (peri-)urban farmers, as well as promotion of entrepreneurial activities especially among young people. UA can also contribute to greening the city, improve urban climate, reduce energy footprint and food waste, shorten supply chains and stimulate productive use of organic residue and urban circularitywaste. Traditional UA practices such as community gardens and (peri-)urban field farms are common in Viet Nam and Cambodia, often on a small-scale and informal basis, and they have been essential in providing staple food and fresh agri-produce to urban residents living in the vicinity. The informal UA practices however could result in negative impacts on the urban environment, and lead to excessive water withdrawal for irrigation, driving land subsidence, soil erosion and pollution of groundwater if, for example chemical fertilizers and pesticides are over-used. While the specific UA baseline in pilot cities will be carved out, several general challenges have been identified in the sub-sector, But to unleash the potential of UA in contributing to climate resilience of food production systems in a meaningful manner, the countries face several challenges including: i) Technological level in traditional UA farms is general low, hence the productivity is low and farmers are vulnerable to extreme climate events; ii) awareness of sustainable forms of agriculture is lacking both among producers and consumers; iii) lack of overall policies, goals, and incentivizsing instruments on the government side to promote smart UA; iv) lack of multi-levelstakeholder coordination between scientists, urban planners, farm managers, investors, etc.; v) lack of coherent knowledge about the availability of best suited technologies, practices and managerial skills; vi) and lack of investment and funding patterns conducive to UA.

<u>UA aided with smart technologies can increase food security and livelihood strategies</u>
(especially for the urban poor) and the resilience of cities^{xx} byas it can (1) creatinge diversified local food production systems that have a more controllable environment and are hence less vulnerable to climate change impacts; (2) creatingte modern farms (e.g. vertical farms) in under-

utilized or recovered urban and peri-urban spaces which does not induce land grabbing; (3) enable all season, local production for urban consumption, thereby shortening supply chains and reducing food footprintenabling all season stable food production; and (4) enablingle precision farming which enhances productivity, food safety and optimizes the rational use of land, waterxxi, pesticide, fertilizer; (4) drive new employment and entrepreneurship opportunities and bring in new skills for urban population, especially for the urban poor and young people, thereby promoting urban inclusion; and (5) contribute to greening the city, improve urban climate, and stimulate productive use of organic residue and urban circularity. Also -tThe ongoing transformation of food distribution systems (street-vendors and wet markets, supermarkets and convenient stores, online marketing and direct- distribution) provides opportunities for innovation to improve climate resilience. All of these directly have potential for contributione to the improvement of food security, income and livelihoods of (peri-)urban farmers, as well as promotion of entrepreneurial activities especially among young people. UA can also contribute to greening the city, improve urban climate, reduce energy footprint and food waste, shorten supply chains and stimulate productive use of organic residue and urban circularity.

Project / Programme Objectives:

The objective of the proposal is to develop innovative adaptation strategies and measures through the expansion of smart (peri-)urban agriculture that will build the adaptive capacity of urban and peri-urban farmers, and strengthen the resilience of local <u>urban</u> food systems in southern Vietnam and Cambodia, thereby contributing to food security in these countries.

Formatted: Left

Project / Programme Components and Financing:

* All project components will be executed in both participating countries.

Components	Expected Outcomes	Expected Outputs	Amount (US\$)
Building up an enabling environment at sectoral and institutional level	- UA production practices better integrated and mainstreamed into sectoral plans - Standards for UA farming technologies developed chnologies developed - Institutional capacity of farmer cooperatives strengthened	1.1. Baseline analysis and formulation of sectoral plans conducive to the uptake and expansion of smart UA; 1.2. Design policy measures to formalize UA practices and in particular address the issue of land tenure; 1.23. Development of guideline documents to enhance standardization of UA farming technologies; 1.34. Strengthening the compliance of products with food and packaging standards to ensure food safety and domestic market acceptance; 1.45. Strengthening the institutional capacity of UA farmer cooperatives and institutions;	1,500,000

2. Capacity development and knowledge management	- National_Itraining centrescenters supporting smart UA established and made operational - Enhanced technological and entrepreneurship capacities	2.1. Establishment of national UA and climate change-related training centrescenters in cooperation with existing partner institutions including private sector entities in Vietnam and Cambodia; 2.2. Training of farmers, and producers and distributors on UA technologies, practices and entrepreneurship skills through farmer cooperatives and networksprivate companies; 2.3. Facilitation of exchange with technologically advanced countries and mutual learning among participating countries; 2.4. Enhance local laboratory capacities to ensure compliance with food safety and quality standards.	4,600,000	
3. Technology uptake and enhanced market access of UA products through collaborating with farmer cooperatives and networks	- Smart UA technologies adopted and scaled up - Market competitiveness of food produced from sustainable UA farms improved - Partnership with technology providers, MFIs and investors forged	3.1. Survey catalogue of suitable UA technologies, value chain traceability technologies and best practices for the local context; 3.2. Pilot suitable UA technologies and practices in selected farmer cooperatives (4-2-several pilot farms and startups for direct marketing per country); 3.3. Pilot digital value chain traceability technology and marketing strategies (e.g., e-commerce, certificate/ labelling mechanisms) for sustainable UA products; (4-2-several pilot value chains per country); 3.4. Improving financial services to farmer cooperatives to ensure access to UA technologies; 3.5. Roll-out of locally adapted UA technologies and value chain development systems; 3.6. Development of partnership with international technology providers and investors to upscale pilot efforts.	5,577,215	
4. Project/Programme Execution cost			1,225,7 Form	atted: Line spacing: Multiple 1.25 li
			12,903,000	, 3 ,
Project/Programme Cycle Management Fee charged by the Implementing Entity (if applicable)		1,097,000		
Amount of Financing Requested			14 million	

Project Duration: 4 years (48 months)

PART II: PROJECT /JUSTIFICATION

Project components:

Traditional UA practices such as community gardens and (peri-)urban field farms are common in Viet Nam and Cambodia, and they have been essential in providing staple food and fresh agriproduce to urban residents living in the vicinity. But to unleash the potential of UA in contributing to climate resilience of food production systems in a meaningful manner, the countries face several common challenges including: i) Technological level in traditional UA farms is general low, hence the productivity is low and farmers are vulnerable to extreme climate events; ii) awareness of sustainable forms of agriculture is lacking both among producers and consumers; iii) lack of overall policies, goals, and incentivising instruments on the government side to promote smart UA; iv) lack of multi-level coordination between scientists, urban planners, farm managers, investors, etc.; v) lack of coherent knowledge about the availability of best suited technologies, practices and managerial skills; vi) and lack of investment and funding patterns conducive to UA.

Formatted: Font: (Default) Arial, 8 pt, Bold

The project is consisted of three main components will design interventions specifically, targeting to remove the identified barriers. To this end, the project is consisted of three main components::

- (1) The building up of an enabling policy and institutional environment in each participating country. This component will ensure that smart and sustainable UA practices are integrated into national and/or municipal-level sectoral plans, thereby providing clear political goals, guidance and impetus for the uptake and expansion of smart UA.
- (2) Capacity development and knowledge management through establishing national-training centrescenters. The component will first do a mapping of existing government, <a href="national-training-to-tal-train
- (3) Facilitation of technology transfer, uptake and market access improvement in 1-2 pilot cities located in the lower Mekong river and Mekong delta in each country(e.g. Phnom Penh, Ho Chi Minh city and Can Tho) -in close collaboration with local farmer cooperatives and the private sector/networks. In both countries, farmer cooperatives and networks are strong institutions and most farmers are part of the cooperatives. Hence, working directly with them is athe most efficient strategy to reach out to a large number of (peri-)urban farmers including the most vulnerable ones. Together with farmers cooperatives/networks, urban planners, international technology providers and microfinance institutions, the component will conduct initial assessment of available UA technologies/systems such as smart agriculture sensors, location systems and smart irrigation systems, and develop pilots for locally adapted technologies/systems in 4-2several selected farms in each countrypilot city. For municipal governments, even temporary use of reclaimed land areas for agribusiness can be a no-regret strategy and contingency measure of urban development. The component will also apply smart technologies to sustainable value chain development (4-2several pilot value chains in each country), including deploying digital traceability systems and e-commerce strategies to enhance the market access of sustainable UA products. For the roll-out and upscaling of the pilot efforts, the project will explore innovative financial schemes including cooperating with microfinance institutions to improve financial services to farmer cooperatives to ensure access to the UA technologies. Furthermore, to ensure upscaling and sustainability of all activities, the project seeks to reach out to multilateral financial institutions and private investor alliances.

The project has selected Viet Nam and Cambodia as target countries as it focuses interventions in populous cities in the lower Mekong river and Mekong delta which are particularly vulnerable to climate change impacts and naturally connected by the shared geography. Also, UNIDO has an active presence in these two countries and in particular on associated topics. A regional approach to all these components the project will enable the two countries to learn from each other, find common solutions for climate change adaptation in the region and leverage existing regional institutional resources. A regional approach is also cost-effective for the following reasons:

1. Both Vietnam and Cambediacountries face similar climate change challenges on food systems which depend (and affect) the Mekong delta aquifer., Lit is therefore most promising and cost-effective to collect, generate, document and share best UA technologies and practices suitable to the local contexts. of these countries.

Formatted: Footer, Left

2. A regional approach can leverage local wisdom generated from different countries and allows knowledge and experience exchange and mutual learning. This in turn can help the project design better policy interventions, technical support, financing mechanisms, marketing strategies, etc. In a single-country project, knowledge and experience tend to be kept in silo.

3. A regional approach is more likely to <u>catalysecatalyze</u> public and private investment in smart UA practices, thereby <u>maximisingmaximizing</u> technology scalability and heightening the contribution of UA to climate resilience and adaptation across the whole region. <u>Exchange of trained and skilled experts can contribute to development of clusters with positive externalities.</u>

The project proposal has great consistency with national policies, plans and strategies for climate change. Addressing food supply is a high priority in the Nationally Determined Contributions (NDCs) of both countries: . In particular, the proposed project activities are in line with their National Adaptation Plans: Viet Nam's NAP for 2021 - 2030 period with a vision by 2050 specifies tasks in the agriculture sector which include "enhance effectiveness of use of agricultural land", "improve resilience of agricultural sector through revising and completing laws and policies", "provide training and improving capacity", "apply high technology, mechanization, automation, and advanced farming and sustainable intensive farming practices which are adaptable to climate change". In Cambodia's NAP, identifies five climate strategic objectives are identified in the agricultural sector, including the one to "enhance capacity of farmers with new technologies in coping with climate change". The proposal can also contribute to Cambodia's Agricultural Sector Strategic Development Plan (2019–2023) with the aim of enhancing agricultural productivity, diversification, and commercialization, as well as the Master Plan for Crop Production in Cambodia for 2030 which puts a focus on value chain prioritisation, technology access and transfer, sustainable farming practices, food safety and etc. It is also in line with specific municipal and sectoral plans such as Ho Chi Minh city's municipal agricultural digital transformation strategy, Can Tho's strategic plan to become a smart city by 2025 via integrating smart approaches in urban management including in food safety and land use management.

The proposed project also contributes to regional development agendas, for example, the GMS Economic Cooperation Program Strategic Framework 2012 2022 with its sector priority on "Agriculture—Pillar 2: Promoting climate-friendly agriculture and natural resource management".

Promotion of new and innovative solutions Innovation and sustainability of the project The project proposes to produce food in urban areas to meet growing local demand as an innovative solution to offset the several innovative strategies to offset the limitations of the existing food production system which replies heavily on rural agriculture which is particularly vulnerable to climate change impacts. Firstly, lit also demonstrates innovation by deploying Industry 4.0 technologies (e.g., ubiquitous sensingers, big data, robotics, geoinformationaerial imagery, supply chain traceability etc.) to different models of urban farming systems (e.g., traditional field farms as well asand modern high-tech farms such as vertical farms, green houses and rooftop gardens), thereby helping farmers achieve—precision farming, improve productivity, product quality, and resource efficiency. Secondly, tThe approach can also create more space for food production by tapping under-utilised urban and peri-urban spaces for pro-poor, regenerative farming practices.

Also Tthe project will take a multi-stakeholder approach by

Sustainability of the project

Formatted: None, Font: Arial, English (United States)

Formatted: None, Font: Arial, English (United States)

Formatted: None, Font: Arial, English (United States)

Formatted: None, Font: Arial, English (United States)

Formatted: None, Font: Arial, English (United States)

Formatted: None, Font: Arial, English (United States)

Formatted: None, Font: Arial, English (United States)

Formatted: None, Font: Arial, English (United States)

Formatted: English (United States)

The project will setting up an eco system platform that connects major stakeholders including the private sector and consumers (including e.g., hotels and tourism resorts with steady demand for high quality produce), thereby creating a sustainable environment for the further uptake and expansion of UA practices in the countries. The integration of UA into sectoral plans, institutional goals and training curriculum will ensure that UA has a long-term development prospect. In addition, the training programmes will have a long lasting impact on farmers' livelihoods and the sharing of experiences and passing on of knowledge through them will improve opportunities for replication and benefit a wider local population. Also, the training centres established and capacity building programmes developed and conducted in partnership with existing local institutions and in particular with the private sector will collaborate and continue to provide services even after the exit of the project, generating long-term impacts on the further development of the sub-sector as well as on local livelihoods. Moreover, the project aims to explore linkages to microfinance institutions, investment portfolios of multilateral development banks and private investors in order to leverage finance into the UA sector. It is also envisaged that projects replicating and upscaling this initiative will be designed for other countries in the region as well as beyond, targeting e.g. GCF and GEF-8 (food systems integrated program).

Economic, social environmental benefits and Vulnerable communities and groups including smallholder farmers and female farmers often bear the brunt of climate change and food insecurity due to poor access to information, technology, credit and other extension services. To ensure inclusiveness and to mitigate negative social impacts, the project will try to engage a wide range of communities and groups via the network of farmer cooperatives and schools, providing tailored trainings and offering technical and entrepreneurship development support to different types of farmers, including women and youth. Partnership with microfinance institutions, development banks and investors has the potential to improve financial services to UA farmers, in particular the vulnerable groups (i.e. women, smallholder farmers and unemployed youth). The project will also adopt a gender mainstreaming strategy to promote gender equality at all stages. It will support the capacity-building of both men and women in governmental institutions, enterprises and farmers' cooperatives. The consultative process is planned to be undertaken during project preparation, with particular reference to vulnerable groups, including gender considerations, in compliance with the Environmental and Social Policy of the Adaptation Fund.

PART III: IMPLEMENTATION ARRANGEMENTS

UNIDO will be the implementing entity for this project, and it will also take upon partial execution function for regional coordination. An executing role will enable UNIDO to better perform the regional coordination function and procure relevant services (e.g. training and knowledge management) from qualified international/regional entities. In addition, whereas the executing agencies in the countries are national ministries which might limit their interaction with the private sector, UNIDO is well positioned to bring together all stakeholders and in particular build partnership with the private sector which is vital for the success of this project.

A regional steering committee will be set up, overseeing and guiding the implementation and mainstreaming results into decision-making. The regional steering committee will be composed of representatives from UNIDO, the executing entities, the National Designated Authorities of AF of each country, and other international partners. In addition, a national steering committee will be set up in each country, consisting of officials of relevant government institutions, NGOs members and other local counterparts^{xxii}; and a local Project Management Unit (PMU) will be

set up within each country's executing agency. UNIDO will act as the overall coordinator of the project, responsible for the delivery of the overall project objective. The work will be supported through project partners based on their respective comparative advantages, and their experiences/existing networks in the region. A more detailed implementation arrangement will be presented at the concept formulation stage.

PART IV: ENDORSEMENT BY GOVERNMENTS AND CERTIFICATION BY THE **IMPLEMENTING ENTITY**

A.	Record of endorsement on behalf of the government ^{xxiii}	Provide the name and
	position of the government official and indicate date of endorsen	nent for each country
	participating in the proposed project/programme. Add more lines	as necessary. The
	endorsement letters should be attached as annexes to the project	ct/programme proposal.

Tin Ponlok, Secretary of State, Ministry of Environment, Kingdom of Cambodia	Date: August 3, 2021
Tran Hong Ha, Minister of Natural Resources and Environment, Socialist Republic of Viet Nam	Date: August 2, 2021

B. IMPLEMENTING ENTITY CERTIFICATION **PROVIDE THE NAME AND SIGNATURE OF THE** IMPLEMENTING ENTITY COORDINATOR AND THE DATE OF SIGNATURE. PROVIDE ALSO THE PROJECT/PROGRAMME CONTACT PERSON'S NAME, TELEPHONE NUMBER AND EMAIL ADDRESS

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 (list here) and subject to the approval by the Adaptation Fund Board, commit to implementing the project/programme in compliance with the Environmental and Social Policy of the Adaptation Fund and on the understanding that the Implementing Entity will be fully (legally and financially) responsible for the implementation of this project/programme.			
Name & Signature Implementing Entity Coordinator			
Date: (Month, Day, Year)	Tel. and email:		
Project Contact Person:			
Tel. And Email:			

Formatted: Font: 10 pt, English (United States)

Thematic areas are: Food security; Disaster risk reduction and early warning systems; Transboundary water management; Innovation in adaptation finance.

"https://www.ipcc.ch/assessment-report/ar6/" https://www.mrcmekong.org/our-work/topics/climate-change/

https://greatermekong.panda.org/challenges in the greater mekong/infrastructure development in the greater mekong/

v https://www.nature.com/articles/nclimate2469

Water security threats demand new collaborations: Lessons from the Mekong River Basin, (2017). Economist Intelligence Unit report. https://www.ccacoalition.org/en/files/2016eiu-water-security-lessons-mekong-river-basinthe-economist-intelligence-unitpdf

ii For example, Cambodia unfortunately still records some of the highest levels of stunting, underweight and anaemia of the region, which indicate shortages in dietary energy supply, and quality

 $https://greatermekong.panda.org/challenges_in_the_greater_mekong/infrastructure_development_in_the$ _greater_mekong/

World Population Prospects 2019. UN Department of Economics and Social Affairs.

https://population.un.org/wpp/

https://www.nature.com/articles/s41467-019-13462-1.pdf

https://royalsocietypublishing.org/doi/pdf/10.1098/rstb.2010.0136

xiii doi.org/10.48565/3xdb-qq20

xiv_https://journals.sagepub.com/doi/pdf/10.1177/0956247810380375

*** https://bonndoc.ulb.uni-bonn.de/xmlui/handle/20.500.11811/9130
*** Milan Urban Food Policy Pact https://www.milanurbanfoodpolicypact.org

^{xvii}. de Zeeuw, H. (2004). The development of Urban Agriculture; some lessons learnt. Conference paper presented at the Urban Agriculture, Agro-Tourism and City Region Development, Beijing. xviii https://sc-fss2021.org/wp-

content/uploads/2021/04/Action Track 3 paper Boost Nature Positive Production.pdf

xix Groundwater extraction for agricultural use, is a main driving force for the sinking of the Mekong Delta, which was estimated about 18cm between 1991 and 2016. Urban agriculture in aguaponics and similar closed loop systems have the potential to be much more water efficient production systems and to ad-

Minderhoud, P.S.J., H. Middelkoop, G. Erkens, and E. Stouthamer, 2020: Groundwater extraction may drown mega

delta: projections of extraction-induced subsidence and elevation of the Mekong delta for the 21st centurv.

Environmental Research Communications, 2(1), 011005, doi:10.1088/2515-7620/ab5e21.

Erban, L.E., S.M. Gorelick, and H.A. Zebker, 2014: Groundwater extraction, land subsidence, and sealevel rise in the

Mekong Delta, Vietnam. Environmental Research Letters, 9(8), 84010, doi:10.1088/1748-9326/9/8/084010.

xx https://sc-fss2021.org/wp-

content/uploads/2021/04/Action Track 3 paper Boost Nature Positive Production.pdf

xxi Groundwater extraction for agricultural use, is a main driving force for the sinking of the Mekong Delta, which was estimated about 18cm between 1991 and 2016. Urban agriculture in aquaponics and similar closed loop systems have the potential to be much more water efficient production systems and to address this.

Minderhoud, P.S.J., H. Middelkoop, G. Erkens, and E. Stouthamer, 2020: Groundwater extraction may drown mega

delta: projections of extraction-induced subsidence and elevation of the Mekong delta for the 21st century. Environmental Research Communications, 2(1), 011005, doi:10.1088/2515-7620/ab5e21.

Erban, L.E., S.M. Gorelick, and H.A. Zebker, 2014: Groundwater extraction, land subsidence, and sealevel rise in the

Mekong Delta, Vietnam. Environmental Research Letters, 9(8), 84010, doi:10.1088/1748-9326/9/8/084010.

xxii A tentative list of potential international/regional partners include: the Mekong River Commission, the Asia Institute of Technology, the Asia Development Bank, Centre for Sustainable Agricultural Mechanization of ESCAP, Wageningen University & Research (Netherlands), etc. In addition to national

	Field Code Changed
	Field Code Changed
1	Field Code Changed
	Field Code Changed
1	Field Code Changed
٧	Field Code Changed

Formatted: Body

executing entities and municipal government agencies, local partners include the Farmer and Nature Net (Cambodia), Federation of Cambodian Farmer Organisation for Development, Association Sustainable Agriculture Communities (Cambodia), Royal University of Agriculture (Cambodia), Viet Nam Farmers' Union, Thang University - Smart Agriculture Research and Application Team (Viet Nam), the Ho Chi Minh City Agriculture Extension Center, Fablabs in Phnom Penh and Hanoi. Suitable micro-finance institutions, investors and technology providers will be identified at the project formulation stage.

xxiiiEach Party shall designate and communicate to the secretariat the authority that will endorse on behalf of the national government the projects and programmes proposed by the implementing entities.

KINGDOM OF CAMBODIA

Nation Religion King



National Council for Sustainable Development

No: O27 NCSD

Letter of Endorsement by Government

Phnom Penh, 03 August 2021

To:

The Adaptation Fund Board c/o Adaptation Fund Board Secretariat Email: Secretariat@Adaptation-Fund.org

Fax: 202 522 3240/5

Subject: Endorsement for a regional project/programme entitled "Increasing climate resilience in food systems through the expansion of smart (peri-)urban agriculture"

In my capacity as designated authority for the Adaptation Fund in Cambodia, I confirm that the above regional project/programme proposal is in accordance with the Royal Government of Cambodia priorities in implementing adaptation activities to reduce adverse impacts of, and risks, posed by climate change in the agriculture sector in the country.

Accordingly, I am pleased to endorse the above project/programme proposal with support from the Adaptation Fund. If approved, the project/programme will be implemented by the United Nations Industrial Development Organization (UNIDO) and executed by the Ministry of Agriculture, Forestry and Fisheries (MAFF) and concerned line ministries/agencies in Cambodia.

Sincerely.

Tin'Ponlok

Secretary of State

NCSD/Ministry of Environment

Cc: Mr. Sok Narin, UNIDO Country Representative



SOCIALIST REPUBLIC OF VIET NAM

MINISTRY OF NATURAL RESOURCES AND ENVIRONMENT

Ha Noi, August 02 , 2021 Ref. No: 37 /MoNRE-DCC-2021

The Adaptation Fund Board C/o Adaptation Fund Board Secretariat E-mail: Secretariat@Adaptation-Fund.org Fax: 202 522 3240/5

Endorsement for the Project Proposal on "Increasing Climate Adaptation in Food Systems through the Expansion of Smart Urban Agriculture".

In my capacity as designated authority for the Adaptation Fund in the Socialist Republic of Viet Nam, I confirm that the above regional project proposal is in accordance with the national priorities in implementing adaptation activities to reduce adverse impacts of, and risks posed by climate change in the Socialist Republic of Viet Nam, which is a part of the Greater Mekong Sub-region.

Accordingly, I am pleased to endorse the above project proposal with support from the Adaptation Fund. If approved, the project will be executed by the Ministry of Agriculture and Rural Development of Viet Nam (MARD) and implemented by the United Nations Industrial Development Organization (UNIDO).

Tran Hong fla

Minister of Natural Resources and Environment

Socialist Republic of Viet Nam

Project Formulation Grant (PFG)

Submission Date: 9 August 2021

Adaptation Fund Project ID: Unknown
Countries: Cambodia, Viet Nam
Title of Project/: Increasing climate resilience in food systems through the expansion of smart
(peri-)urban agriculture
Type of IE (NIE/MIE): MIE
Implementing Entity: United Nations Industrial Development Organization
Executing Entities: Country A: Ministry of Agriculture and Rural Development, Viet Nam
Country B: Ministry of Agriculture, Forestry and Fisheries, Cambodia

A. Project Preparation Timeframe

Start date of PFG	November 1, 2021
Completion date of PFG	March 30, 2022

B. Proposed Project Preparation Activities (\$)

Describe the PFG activities and justifications:

List of Proposed Project Preparation Activities	Output of the PFG Activities	USD Amount
Undertake environmental and social technical assessments	ESS report	10,000
Coordinate with local counterparts to develop project interventions and implementation arrangement in more detail	Formulation of project concept	10,000
Total Project Formulation Grant		20,000

C. Implementing Entity

This request has been prepared in accordance with the Adaptation Fund Board's procedures and meets the Adaptation Fund's criteria for project identification and formulation

and meets the Adaptati	or oject identii	ication and ic	iiiiulauoii		
Implementing Entity					
Coordinator, IE Name	Signature	Date	Project	Telephone	Email Address
		(Month,	Contact		
		day, year)	Person		
Mr. Akos					
KOESZEGVARY	anna Onnaha				
(Signed on his behalf	Ganna Onysko	August 6,	Mr.	+43 1 26026	z.peng@unido.org
by officer-in-charge	U U	2021	Zhengyou	3831	
Ms. Ganna ONYSKO)			PENG		