



ADAPTATION FUND

AFB/PPRC.36/23
15 September 2025

Adaptation Fund Board
Project and Programme Review Committee
Thirty sixth Meeting
Bonn, Germany, 7-8 October 2025

Agenda Item 4(u)

PROPOSAL FOR VENEZUELA

Background

1. The Operational Policies and Guidelines (OPG) for Parties to Access Resources from the Adaptation Fund (the Fund), adopted by the Adaptation Fund Board (the Board), state in paragraph 45 that regular adaptation project and programme proposals, i.e. those that request funding exceeding US\$ 1 million, would undergo either a one-step, or a two-step approval process. In case of the one-step process, the proponent would directly submit a fully-developed project proposal. In the two-step process, the proponent would first submit a brief project concept, which would be reviewed by the Project and Programme Review Committee (PPRC) and would have to receive the endorsement of the Board. In the second step, the fully-developed project/programme document would be reviewed by the PPRC, and would ultimately require the Board's approval.

2. The Templates approved by the Board (Annex 5 of the OPG, as amended in March 2016) do not include a separate template for project and programme concepts but provide that these are to be submitted using the project and programme proposal template. The section on Adaptation Fund Project Review Criteria states:

For regular projects using the two-step approval process, only the first four criteria will be applied when reviewing the 1st step for regular project concept. In addition, the information provided in the 1st step approval process with respect to the review criteria for the regular project concept could be less detailed than the information in the request for approval template submitted at the 2nd step approval process. Furthermore, a final project document is required for regular projects for the 2nd step approval, in addition to the approval template.

3. The first four criteria mentioned above are:

- (i) Country Eligibility,
- (ii) Project Eligibility,
- (iii) Resource Availability, and
- (iv) Eligibility of NIE/MIE.

4. The fifth criterion, applied when reviewing a fully-developed project document, is:
(v) Implementation Arrangements.

5. It is worth noting that at the twenty-second Board meeting, the Environmental and Social Policy (ESP) of the Fund was approved and at the twenty-seventh Board meeting, the Gender Policy (GP) of the Fund was also approved. Consequently, compliance with both the ESP and the GP has been included in the review criteria both for concept documents and fully-developed project documents. The proposal template was revised as well, to include sections requesting demonstration of compliance of the project/programme with the ESP and the GP.

6. At its seventeenth meeting, the Board decided (Decision B.17/7) to approve "Instructions for preparing a request for project or programme funding from the Adaptation Fund", contained in the Annex to document AFB/PPRC.8/4, which further outlines applicable review criteria for both

concepts and fully-developed proposals. The latest version of this document was launched in conjunction with the revision of the Operational Policies and Guidelines in November 2013.

7. Based on the Board Decision B.9/2, the first call for 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 April 8, 2010.

8. The following project concept document titled “Strengthening the Resilience of Communities, their Livelihoods, and Ecosystems to the Impacts of Climate Change in the Turimiquire Mountain Massif Protective Zone” was submitted for Venezuela by the UN World Food Programme (WFP), which is a Multilateral Implementing Entity of the Adaptation Fund.

9. This is the second submission of the project concept proposal using the two-step submission process.

10. The current submission was received by the secretariat in time to be considered in the forty-fifth Board meeting. The secretariat carried out a technical review of the project proposal, assigned it the diary number AF00000436, and completed a review sheet.

11. In accordance with a request to the secretariat made by the Board in its 10th meeting, the secretariat shared this review sheet with WFP, and offered it the opportunity of providing responses before the review sheet was sent to the PPRC.

12. 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

ADAPTATION FUND BOARD SECRETARIAT TECHNICAL REVIEW OF PROJECT/PROGRAMME PROPOSAL

PROJECT/PROGRAMME CATEGORY: Regular-sized Project Concept

Country/Region: Venezuela

Project Title: Strengthening the resilience of communities, their livelihoods, and ecosystems to the impacts of climate change in the Turimiquire Mountain Massif Protected Zone

Thematic Focal Area: Multisector

Implementing Entity: World Food Programme (WFP)

Executing Entities: Ministry of People's Power for Eco socialism (MINEC)

AF Project ID: AF00000436

IE Project ID:

Requested Financing from Adaptation Fund (US Dollars): 10,000,000

Reviewer and contact person: Ahmad Ghosn

Co-reviewer(s): Alyssa Gomes

IE Contact Person:

<p>Technical Summary</p>	<p>The project “Strengthening the resilience of communities, their livelihoods, and ecosystems to the impacts of climate change in the Turimiquire Mountain Massif Protected Zone” aims to reduce the vulnerability of degraded ecosystems and strengthen the resilience of vulnerable communities and their livelihoods in the Protected Area of the Turimiquire Mountain Massif, Bolivarian Republic of Venezuela, against the risks of extreme rainfall, floods, landslides, droughts, and increasing climate variability. This will be done through the four components below:</p> <p><u>Component 1:</u> Risk knowledge and capacity building for climate risk planning and monitoring in the ZPMMT. (USD 1,000,000);</p> <p><u>Component 2:</u> Improvement of hydrometeorological monitoring and community strengthening of disaster risk management in the ZPMMT. (USD 1,820,000);</p> <p><u>Component 3:</u> Restoration and conservation of ecosystems to support local livelihoods. (USD 2,000,000).</p> <p><u>Component 4:</u> Technical Assistance and investments to promote the adoption of resilient agro-productive practices. (USD 3,522,000).</p> <p><u>Requested financing overview:</u> Project/Programme Execution Cost: USD 875,000 Total Project/Programme Cost: USD 9,217,000 Implementing Fee: USD 783,000 Financing Requested: USD 10,000,000</p>
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	<p>The first technical review raises some issues, such as: i) revisions to improve the clarity and layout of the document; ii) indicating the specific Adaptation Fund objectives and outcomes supported by the project in Part IIA and providing more detail on the proposed activities; iii) explaining the rationale for the use of Unidentified Sub-Projects (USPs) and the measures that will be taken to ensure compliance with related Adaptation Fund requirements; iv) quantifying the expected project benefits where possible; v) ensuring that all referenced national plans and strategies are included, along with their dates; vi) providing a clearer discussion on the project's Monitoring, Evaluation, and Learning (MEL) system; vii) clarifying how the operation and maintenance of planned infrastructures and installations will be sustained after the project ends; viii) revising the Environmental and Social Principles checklist to better align with the Adaptation Fund's required format and content; among other points outlined in the Clarification Requests (CRs) and Corrective Action Requests (CARs) raised in the review.</p> <p>The second technical review finds that all the CRs and CARs raised in the first technical review were adequately addressed.</p> <p><i>Please be advised that the findings of the AFB Secretariat's review of the funding proposal(s) do not reflect, indicate, or prejudice the outcome of the reaccreditation process currently underway. The Implementing Entity (IE) shall acknowledge that the funding proposal will not be approved by the Board if the IE's accreditation has expired, and reaccreditation has not been achieved at the time of the Board's decision. Notwithstanding this potential risk, the IE has elected to proceed with the development of the funding proposal.</i></p>
Date:	16 July 2025

Review Criteria	Questions	First Technical Review Comments June 04, 2025	Second Technical Review Comments July 16, 2025
Country Eligibility	1. Is the country party to the Kyoto Protocol, and/or the Paris Agreement?	Yes.	-
	2. Is the country a developing country particularly vulnerable to the adverse effects of climate change?	Yes. Venezuela is vulnerable to the adverse effects of climate change including rising temperatures, erratic rainfall, increased frequency of extreme weather events like floods and droughts. The above result in land and ecosystems degradation, water	-

		scarcity, population displacement, etc., and negatively impact the country's economic and social development.	
Project Eligibility	1. Has the designated government authority for the Adaptation Fund endorsed the project/programme?	<p>Yes. <u>As per the endorsement letter dated 29 April 2025.</u> The LOE is signed by a Minister different than the one indicated the AF records.</p>	-
	2. Does the length of the proposal amount to no more than Fifty pages for the project/programme concept, including its annexes?	<p>Yes.</p> <p>However, the below items related to document quality and structure if addressed would enhance the presentation of the proposal.</p> <ul style="list-style-type: none"> • Consider adding a table of contents that list of acronyms or spell out all acronyms when first used; • Replace “Protective Zone” with “Protected Zone” consistently; • Revise Figure 1 (p. 9) to improve clarity and legibility; Conduct thorough proofreading for grammar, layout, and language consistency. 	-
	3. Does the project / programme support concrete adaptation actions to assist the country in addressing adaptive capacity to the adverse effects of climate change and build in climate resilience?	<p>Yes. However, additional information is required. See Part IIA, pp. 20-28. The project aims to enhance the resilience of ecosystems and communities in the Turimiquire Mountain Massif Protected Zone through a combination of early warning systems,</p>	

		<p>agroecology, ecosystem restoration, and community-based adaptation. The concept acknowledges the compounding effects of climate variability, land degradation, and socioeconomic vulnerability.</p> <ul style="list-style-type: none">- Component 1 addresses information and institutional gaps in monitoring localized climate risks.- Component 2 tackles ecosystem degradation, a driver of vulnerability to landslides, droughts, and food insecurity.- Component 3 responds to the climate vulnerability of traditional agriculture and dependence on degraded land.- Component 4 supports long-term sustainability through behavioral and institutional change.- The proposal also aims to ensure coordination, fiduciary management, and compliance with AF policies. <p>The climate rationale outlines key risks but lacks a clear linkage between these and the specific activities under each component. The connection between climate threats and the adaptation logic needs strengthening.</p>	
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		<p>CR1: In Part IIA, briefly describe how each key hazard (e.g. droughts, extreme rainfall, ecosystem degradation) is directly addressed by specific activities.</p> <p>The proposal outlines four relevant components but does not clearly describe how they are interlinked or sequenced. A cohesive implementation logic is important to demonstrate the added value of the multi-component structure and to support effective execution and monitoring.</p> <p>CR2: Please strengthen the narrative to explain how each component complements and builds on the others. For example, how does knowledge and capacity from Component 1 feed into preparedness in Component 2, or restoration efforts in Component 3? Include a brief <u>indicative timeline</u> or <u>implementation sequence</u> that shows when each component will be launched and how their activities are staged. Highlight cross-cutting enablers (e.g., capacity building, data generation, stakeholder engagement) that support multiple components.</p> <p>The components are logically structured around capacity-building, concrete on-the-ground adaptation measures, and sustainability through governance and knowledge. However, the articulation of the climate adaptation rationale within each component remains somewhat</p>	<p>CR1: Cleared. Each activity has been revised to describe its linkage to the climate hazards it contributes to addressing. See Part IIA, pp. 19-30.</p> <p>CR2: Cleared. See Para 114 and Figure 5, p.20.</p>
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		<p>general, particularly for Component 2. While the types of activities are mentioned (e.g., reforestation, irrigation, slope stabilization), the proposal does not specify how these are directly responding to the identified climate threats or how the activities are prioritized based on climate risks.</p> <p>CR3: Please clarify how each of the proposed interventions under Component 2 directly addresses the climate threats identified in the background section (e.g., increased frequency of floods and droughts, land degradation, landslides). For example, how does the irrigation strategy respond to climate-induced drought risk? How will slope stabilization be designed to respond to expected intensification of rainfall?</p> <p>Component 2 proposes restoration of degraded areas but does not specify the restoration techniques, area coverage, or monitoring plans.</p> <p>CR4: Please indicate the scale of restoration (e.g., hectares targeted), and whether it involves active planting, assisted natural regeneration, or agro-sylvo-pastoral integration. Clarify how priority areas will be selected and whether restoration will directly reduce specific climate risks (e.g., landslide-prone slopes).</p>	<p>CR3: Cleared. See paragraphs 158, 159 (p.26) and paragraphs 164-167 (pp. 26-27).</p> <p>CR4: Cleared. See Para 173 (p.28) and para 164 (p.27).</p> <p>The IE response also indicated that :</p> <ul style="list-style-type: none"> • During the FP stage, WFP and MINEC will work together with the National Reforestation Company (CONARE) and the NAP for Agriculture, Water Resources, and
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		<p><u>At the fully-developed proposal</u> stage outline plans for monitoring vegetation recovery and community participation in restoration efforts.</p> <p>Component 3 presents agroecology as a core adaptation strategy but does not define the specific practices to be promoted or how they respond to identified climate impacts (e.g., soil erosion, declining yields due to erratic rainfall).</p> <p>CR5: Please clarify the key agroecological practices proposed (e.g., water harvesting, composting, crop rotation, agroforestry). Explain how these contribute to climate resilience for smallholder farmers (e.g., drought resistance, soil restoration, income diversification).</p>	<p>Fisheries, to assess existing geospatial data and identify preliminary priority watersheds and further focalize the intervention.</p> <ul style="list-style-type: none"> • During the implementation phase further prioritization will be done building on the results from the diagnostic studies under Activity 1.1.1, which will include further risk mapping, ecosystem degradation levels, and hydrological analysis, which will contribute to determine the critical areas in terms of: i) Erosion-prone hillsides and landslide risk zones; ii) Critical water recharge zones (e.g., upper and middle watersheds); and iii) Degraded riparian buffers, areas with biodiversity importance or degradation hotspots. The above information has been incorporated in the CN in paragraphs 166 and 167. <p>CR5: Cleared. See para 176 (p.28) and para 179/Table 4 (p.29).</p>
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		<p>Component 4 on knowledge and education provides a broad set of activities but lacks clarity on how learning from Components 1–3 will be captured, applied, and shared to inform adaptation processes.</p> <p>CR6: Please describe mechanisms for capturing lessons from implementation (e.g., field diaries, participatory evaluation). Indicate how these lessons will influence adaptive management during the project.</p> <p>Explain how knowledge will be shared with other communities or institutions to support replication or scaling-up. If specific aspects related to knowledge management are expected to be defined at the fully-developed proposal stage, please explicitly mention this.</p> <p>Activities 2.3.2 (community early warning systems) and 3.1.1 (ecosystem restoration/conservation) are described as USPs but both fall under commonly known intervention types with relatively well-established methodologies. <u>The proposal does not adequately explain why it is not feasible to define the scope, locations, or implementation modalities of these activities at this stage.</u> While the proposal mentions a future risk analysis and validation process for USPs, it lacks an indicative timeline, screening criteria, or</p>	<p>CR6: Cleared. See Part IIA detailed activity description (pp. 19-30), Part IIG (pp.41-42), and para 223 (p.42) and para 123, p. 22. See also IE response for further clarification.</p>
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		<p>reference to the safeguards system that will govern their design and approval.</p> <p>CAR1: Please provide a clear rationale for the use of USPs. Describe the <u>indicative process and timeline</u> for identifying and validating these USPs, including how communities and stakeholders will be involved. For guidance, please refer to the Updated guidance for IEs on the use of USPs</p> <p><u>At the fully-developed proposal stage</u>, if USPs are justified, provide more detail on the screening, validation, and approval process for the USPs: who will lead the process, when it will take place, what exclusion criteria will apply, and how stakeholders will be engaged.</p> <p>Many activities are described without adequate detail or targets, making it difficult to assess scale and ambition.</p> <p>CR7: <u>Please quantify and substantiate the proposed activities where feasible</u> — e.g., number of meteorological stations, capacity-building sessions, nurseries, hectares of land to be restored, number of livelihood support schemes — to enhance the specificity and traceability of the interventions. If specific elements are expected to be defined at the full proposal stage, please mention this explicitly in the concept note proposal.</p>	<p>CAR1: Cleared. See Para 155-157 and para (166-167), and IE response (for further clarification).</p> <p><u>At full proposal stage</u>, WFP and MINEC will further analyse available data, engage national institutions, university experts and government in a dedicated workshop to prioritize sites; and conduct field visits and community consultations to refine/ validate the prioritized specific intervention sites. Environmental and social screening, gender assessment, and stakeholder consultations will be conducted in Year 1 after site selection, if USP remains.</p> <p>CR7: Cleared. See activities description in Part IIA, pp. 19-30. At full proposal stage, more details will be added to further substantiate the work to be undertaken.</p>

		<p><u>At the fully-developed proposal stage, include</u> details on the activities to further substantiate/ quantify the work to be undertaken (e.g.: number of capacity building trainings/ workshops, number of early warning systems/ meteorological stations, number of nurseries, number of supported sustainable agricultural practices/ microenterprises, area of rehabilitated land, etc.).</p> <p>CR8: The narrative in Part IIA currently separates the outcomes from the components and outputs, which creates confusion and disrupts the logical structure.</p> <p>Consider deleting paragraph 111 and revise the structure in Part IIA to present each component in the following order:</p> <ul style="list-style-type: none">• Component number and title;• Corresponding outcome(s);• Outputs under each outcome;• Specific activities under each output. <p>CAR2: Please clarify alignment with AF Strategic Results Framework In Part IIA, paragraph 110, or in a dedicated paragraph, indicate the specific Adaptation Fund outcomes and outputs supported by the project. This information is currently only presented in Part IIIA (pp.</p>	<p>CR8: Cleared. See Part IIA, pp. 19-30.</p> <p>CAR2: Cleared. See Para 112, p.19.</p>
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		48–49) and should be explicitly referenced earlier in the narrative.	
	<p>4. Does the project / programme provide economic, social and environmental benefits, particularly to vulnerable communities, including gender considerations, while avoiding or mitigating negative impacts, in compliance with the Environmental and Social Policy and Gender Policy of the Fund?</p>	<p>Yes. See Part IIB, pp. 28-31. The environmental and social benefits are largely qualitative. Quantified estimates would strengthen the impact narrative.</p> <p>CR9: Where possible, please quantify the <u>environmental, economic and social benefits</u> (e.g.: estimated area of rehabilitated land, number of nurseries, potential new job opportunities/ microenterprises, etc.).</p> <p>The components mention benefits to Indigenous Peoples and women, especially in Component 2, but do not yet provide sufficient detail on how these groups will be directly and equitably engaged across components, especially in governance, monitoring, and decision-making roles (Components 1 and 3).</p> <p>CR10: Please provide more clarity on <u>how gender and vulnerable groups, especially Indigenous Peoples and women, will be actively involved</u> across all components beyond being project beneficiaries — including in governance, participatory monitoring, and leadership roles in Components 1 and 3.</p> <p>The concept noted includes a preliminary gender discussion and gender issues are well noted in the description of the</p>	<p>CR9: Cleared. See Part IIB, pp.30-33. More details to be provided at FP stage.</p> <p>CR10: Cleared. In Part IIA, each activity has been revised to indicate gender and inclusion approach and ensure they are actively involved. Also, see Part IIB, paragraph 206, p. 33.</p> <p><u>At the full proposal stage a detailed gender analysis and gender action plan will be included.</u></p>

		<p>components in Part IIA, and In Part IIB(subsection g, pp. 15-16, paragraphs 79-90) but does not clearly commit to a full Gender Assessment or Action Plan. <u>At the fully developed proposal stage a detailed gender analysis and gender action plan will be needed in accordance with the AF Gender Policy.</u></p>	
	<p>5. Is the project / programme cost effective?</p>	<p>Yes. However, additional information is required.</p> <p>See Part IIC pp. 31-33.</p> <p>The proposal presents a relatively detailed qualitative cost-effectiveness analysis for key adaptation measures under Components 2, 3, and 4. It compares each proposed measure with alternative options, outlining the advantages, efficiency elements, co-benefits, national experiences, and indicative costs. This shows a strong effort to explain why the selected measures are appropriate, feasible, and likely to be cost-effective.</p> <p>However, the use of Unidentified Sub-Projects (USPs) under Components 2 and 3 introduces a level of uncertainty. While the general cost-effectiveness rationale for community-based early warning systems , nature-based watershed interventions, and resilient livelihood diversification is compelling, the lack of definition in some sub-activities limits the ability to fully assess and</p>	

		<p>compare specific cost elements or expected cost-benefit ratios.</p> <p>CR11: Please justify and acknowledge the presence of USPs and explain how their cost-effectiveness will be ensured once details are finalized. If USPs are justified, <u>confirm that a cost-screening process will be applied to all USP interventions before approval</u>, including criteria such as value-for-money, long-term sustainability, and alignment with national/local implementation capacities. Reiterate that quantitative cost-effectiveness metrics (e.g., cost-benefit ratios, cost per hectare restored, cost per household reached) will be presented at the full proposal stage, where applicable.</p> <p><u>A more detailed cost effectiveness against other alternatives, supported by statistics (where possible), would be recommended at full proposal stage.</u></p>	<p>CR11: Cleared. See Part IIC, para 209, p.36. <u>A more detailed cost-effectiveness analysis will be included at FP stage.</u></p>
	<p>6. Is the project / programme consistent with national or sub-national sustainable development strategies, national or sub-national development plans, poverty reduction strategies, national communications and adaptation programs</p>	<p>Yes. However, additional information is required. See Part IID, pp. 33-35. <u>However</u>, some of the listed plans/ strategies/etc. lack dates. Also, some of the plans listed in paragraph 3, p. 3, need to be included in Part IID.</p> <p>CR12: Please ensure that the dates of some listed plans/ strategies etc. are included.</p>	<p>CR12: Cleared. See Part IID, Table 6, pp. 37-38.</p>

	of action and other relevant instruments?	CAR3: Please ensure that all the listed national strategies/ plans (a-d) in paragraph 3, p. 3, are reflected in Part IID along with dates.	CAR3: Cleared. See Part IID, Table 6. Also see IE response regarding the date of “The Great Mission Mother Earth” initiative.
	7. Does the project / programme meet the relevant national technical standards, where applicable, in compliance with the Environmental and Social Policy of the Fund?	Yes. See Part IIE, pp. 35-37. <u>However</u> , it would be recommended to clarify if other standards, unidentified at this stage, would be applicable to the USPs. CR13: Please clearly indicate whether the listed standards will cover USPs. Otherwise, indicate if additional standards may need to be applied to the USPs once fully identified.	CR13: Cleared. See Part IIE, para 216, p.38.
	8. Is there duplication of project / programme with other funding sources?	No. See Part IIF, pp. 37-38.	-
	9. Does the project / programme have a learning and knowledge management component to capture and feedback lessons?	Yes. Knowledge management aspects are embedded in the components outputs/ activities. See Part IIA (pp. 20-28) and Part IIG (p. 39). <u>However</u> , paragraph 202, p. 39, refers to "Project's Monitoring, Evaluation, and Learning System", which warrants further clarification. CR14: In paragraph 202, p. 39, reference is made to "Project's Monitoring, Evaluation, and Learning System. Please briefly describe this system in a dedicated paragraph.	- CR14: Cleared. See Part IIG, para 223, p.42. Also, see IE response for further clarification.

	<p>10. Has a consultative process taken place, and has it involved all key stakeholders, and vulnerable groups, including gender considerations in compliance with the Environmental and Social Policy and Gender Policy of the Fund?</p>	<p>Yes.</p> <p>Adequate for concept note stage. See Part IIH, pp. 39-43. <u>More consultations, particularly with local communities/vulnerable groups/indigenous peoples, are recommended at full proposal stage.</u></p>	<p>-</p>
	<p>11. Is the requested financing justified on the basis of full cost of adaptation reasoning?</p>	<p>Yes.</p> <p>See Part II'I", pp. 33-34.</p>	<p>-</p>
	<p>12. Is the project / program aligned with AF's results framework?</p>	<p>Yes.</p> <p>The project supports/ is aligned with the AF results framework (Specify outcomes/ outputs) See Part IIIA, pp. 48-49.</p>	<p>-</p>
	<p>13. Has the sustainability of the project/programme outcomes been taken into account when designing the project?</p>	<p>Yes.</p> <p>However, additional information is required.</p> <p>See Part IIJ, pp. 44-45.</p> <p>The proposal presents a promising and well-structured sustainability rationale, particularly in its alignment with national programs and strong emphasis on social and institutional participation. However, the mechanisms for long-term</p>	

		<p>sustainability beyond the life of the project require further clarification, especially regarding the handover of responsibilities, replication strategies, and engagement with private actors.</p> <p>CR15: Please clarify/ elaborate on</p> <ul style="list-style-type: none"> - The sustainability of operation and maintenance aspects of the planned infrastructures, installations, nurseries, land rehabilitation/ restoration, etc. - Clarify how the project plans to ensure the handover and continuity of key interventions (e.g., climate information systems, restoration sites, or agricultural support) once funding ends. - Elaborate on how private sector actors will be engaged during and after implementation to support the sustainability of value chains and livelihoods promoted by the project. - Indicate whether replication or upscaling mechanisms will be integrated into the full proposal (e.g., through partnerships, policy uptake, or national funding channels). 	<p>CR15: Cleared. See Part IIJ, para 258, p.49. Also, see IE response. Detailed implementation arrangements will be developed during FP stage and will include clear handover processes, the specific entities that will assume responsibility for the O&M of each infrastructure component and project-supported action, replication/ upscaling mechanism, etc. Further information on private sector actors' engagement is provided in para 255, p.48.</p>
	<p>14. Does the project / programme provide an overview of environmental and</p>	<p>Yes. However, additional information is required. See Part IIK, pp. 45-48.</p>	

	<p>social impacts / risks identified, in compliance with the Environmental and Social Policy and Gender Policy of the Fund?</p>	<p>The proposal provides a reasonably thorough preliminary environmental and social risk analysis. It classifies the project as Category B, which appears appropriate based on the scope, type, and scale of interventions. The checklist includes identification of risks aligned with the 15 AF principles.</p> <p>However, USPs not explicitly flagged in the checklist — while the narrative explains that activities 2.3.2 and 3.1.1 are currently unidentified and will require further analysis, this is not clearly linked to the relevant principles in Table 10 (e.g., natural habitats, biodiversity, IPs). Future safeguard steps should be explicitly stated — While the table notes where additional evaluation is needed, the proposal should state more clearly that detailed screening and appropriate safeguard instruments (e.g., IPP, Gender Action Plan) will be developed at the full proposal stage.</p> <p>CAR4: Please include a justification for the USP approach. Furthermore, in Table 10, clearly flag if any of the risks listed (e.g., under natural habitats, biodiversity, Indigenous Peoples) are associated with USP activities (2.3.2 and 3.1.1), to highlight their need for follow-up screening. <u>Confirm that during the full proposal stage</u>, the project will conduct detailed safeguards screening for the</p>	<p>CAR4: Cleared. See Part IIA, Part IIK, Table 11, pp.49-52, and IE response.</p> <p>Additionally, if USP remains after the FP stage, the Project will ensure detailed safeguard screening for the USP and develop appropriate tools for this screening to ensure compliance with the AF's ESP, Gender Policy, stakeholder consultation and ensure adequate</p>
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		USPs and develop appropriate tools (e.g., ESIA, Indigenous Peoples Plan (if relevant), Gender Action Plan, Stakeholder Engagement Plan) in line with the AF's ESP and guidance. Finally, clarify that an Environmental and Social Management Plan (ESMP) will be developed at the full proposal stage if needed, based on the results of the detailed screening process.	guidance, budget and provisions for the implementation stage.
Resource Availability	1. Is the requested project / programme funding within the cap of the country?	Yes.	-
	2. Is the Implementing Entity Management Fee at or below 8.5 per cent of the total project/programme budget before the fee?	Yes. The Implementing Entity fee is USD 783,000, which is 8.5% of the project total cost of USD 9,217,000.	-
	3. Are the Project/Programme Execution Costs at or below 9.5 per cent of the total project/programme budget (including the fee)?	Yes. The Execution Costs total is USD 875,000, which is 9.5% of the project total cost of USD 9,217,000.	-
Eligibility of IE	1. Is the project/programme submitted through an eligible Implementing Entity that has been	Yes. WFP is in reaccreditation process. Accreditation Expiration Date was 20 May 2025. Please be advised that the findings of the AFB Secretariat's review of the funding	-

	accredited by the Board?	proposal(s) do not reflect, indicate, or prejudge the outcome of the reaccreditation process currently underway. The Implementing Entity (IE) shall acknowledge that the funding proposal will not be approved by the Board if the IE's accreditation has expired, and reaccreditation has not been achieved at the time of the Board's decision. Notwithstanding this potential risk, the IE has elected to proceed with the development of the funding proposal.	
Implementation Arrangements	1. Is there adequate arrangement for project / programme management, in compliance with the Gender Policy of the Fund?	n/a at concept stage	
	2. Are there measures for financial and project/programme risk management?	n/a at concept stage	
	3. Are there measures in place for the management of for environmental and social risks, in line with the Environmental and Social Policy and Gender Policy of the Fund?	n/a at concept stage	
	4. Is a budget on the Implementing Entity	n/a at concept stage	

	Management Fee use included?		
	5. Is an explanation and a breakdown of the execution costs included?	n/a at concept stage	
	6. Is a detailed budget including budget notes included?	n/a at concept stage	
	7. Are arrangements for monitoring and evaluation clearly defined, including budgeted M&E plans and sex-disaggregated data, targets and indicators, in compliance with the Gender Policy of the Fund?	n/a at concept stage	
	8. Does the M&E Framework include a break-down of how implementing entity IE fees will be utilized in the supervision of the M&E function?	n/a at concept stage	
	9. Does the project/programme's results framework align with the AF's results framework? Does it include at least one core	n/a at concept stage	

	outcome indicator from the Fund's results framework?		
	10. Is a disbursement schedule with time-bound milestones included?	n/a at concept stage	



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CONCEPT NOTE PROPOSAL FOR SINGLE COUNTRY

PART I: PROJECT/PROGRAMME INFORMATION

Title of Project/Programme: Strengthening the resilience of communities, their livelihoods, and ecosystems to the impacts of climate change in the Turimiquire Mountain Massif Protected Zone

Country: Venezuela

Thematic Focal Area: Multisector Project

Type of Implementing Entity: Multilateral Implementing Entity

Implementing Entity: World Food Programme (WFP)

Executing Entities: Ministry of People's Power for Ecosocialism (MINEC by its acronym in Spanish)

Amount of Financing Requested: 10,000,000 (in U.S Dollars Equivalent)

Project Formulation Grant Request (available to NIEs only): Yes No

Amount of Requested financing for PFG: (in U.S Dollars Equivalent)

Letter of Endorsement (LOE) signed: Yes No

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

Stage of Submission:

- This concept has been submitted before
- This is the first submission ever of the concept proposal

In case of a resubmission, please indicate the last submission date: 5/20/2025

Please note that concept note documents should not exceed 50 pages, including annexes.

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Acronyms

AF	Adaptation Fund
AIC	Integrated Context Analysis
ABRAE	Area Under Special Management Regime
BAU	Business-as-usual
CCA	and Community Water Councils
CEMV	Seasonal Livelihoods Consultation
CEWS	Community Early Warning System
CIARA	Ministry of Popular Power for the Communes and Urban Agriculture
CNCC	National Communications on Climate Change
EAP	economically active population
ECLAC	Economic Commission for Latin America and the Caribbean
EFR	Environmental Flow Requirements
ENSO	El Niño-Southern Oscillation
EWS	Early Warning System
FAO	Food and Agriculture Organization
FONDAS	Fund for Socialist Agricultural Development
Fundambiente	National Foundation for Environmental Education
GDP	Gross Domestic Product
GHGs	Greenhouse gases
GII	Gender Inequality Index
HDI	Human Development Index
IDB	Inter-American Development Bank
IFLA	Latin American Forestry Institute
ILO	International Labour Organization
INAMEH	National Institute of Meteorology and Hydrology
INE	National Institute of Statistics
INIA	National Institute of Agricultural Research
INSAI	National Institute for Integrated Agricultural Health
INSOPESCA	Socialist Institute of Fisheries and Aquaculture
INTI	National Institute of Lands
IPCC	Intergovernmental Panel on Climate Change
IP	Indigenous Peoples
LDN	Land Degradation Neutrality
MEVEN	Movimiento Ecologista Venezolano
MINAGUAS	Ministry of Popular Power for Water Affairs
MINCYT	Ministry of Popular Power for Science and Technology
MINEC	Ministry of People's Power for Ecosocialism
MinMujer	Ministry of Popular Power for Women and Gender Equalit
MinPPAPT	Ministry of Popular Power for Productive Agriculture and Lands
MPPRIJP	Ministry of Popular Power for Interior Relations, Justice, and Peace
NAP	National Adaptation Plan
NbS	Nature-based Solutions
NDA	National Designated Authority
NDC	Nationally Determined Contributions
NDT	National Strategy for Land Degradation Neutrality
NPARQUES	National Parks Institute
ONI	Oceanic El Niño Index
PORU	Land Use Plan and Regulations
RIWR	Internal Renewable Water Resources
REDAN	Regions for Damage Assessment and Needs Analysis
REINFO	'Forest Fire Registry
SAF	Simultaneous Agroforestry Systems
SF	Forest Systems
TNC	Third National Communication
UBN	Unsatisfied Basic Need
UCM	Unilateral Coercive Measures
UEMPPAT	State Unit of the Ministry of Popular Power for Agriculture and Land
UDO	University of Oriente
USP	Unidentified Subproject
VMPPAU	Vice Ministry of Popular Power for Urban Agriculture
WB	World Bank
ZOEDAN	Zones of Damage Assessment and Needs Analysis
ZPMMT	Turimiquire Mountain Massif Protected Zone

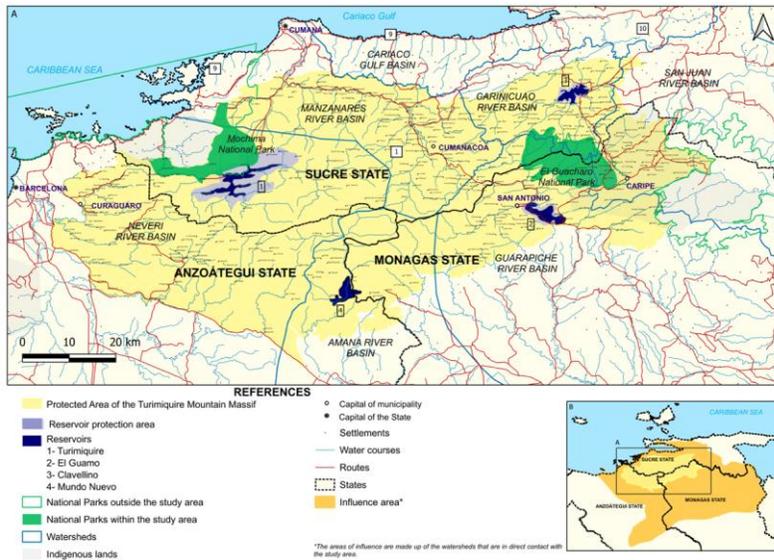
PART I: PROJECT/PROGRAMME INFORMATION

Project/Programme Background and Context:

Introduction to the project area and summary of the climate rationale of the proposal

1. The Bolivarian Republic of Venezuela has 24 states¹, one capital district and federal dependencies composed of 311 islands, cays, and islets². It is one of the countries with the greatest diversity in the world, ranking sixth in Latin America, with different terrestrial and marine ecosystems in which a wide variety of species of fauna and flora develop³. These ecosystems are distributed across 27 climatic zones, with rich vegetation: 650 different types of plant communities 23 landforms and 38 major geological units. Among the most important areas are the 330,545 hectares of dry forest and extensive areas of basal gallery forest.⁴
2. The project has prioritized the **Turimiquire Mountain Massif Protected Zone (ZPMMT)** as defined in Figure 1. The Turimiquire Mountain Massif was declared a Protected Zone in 1974⁵. The regulations for the use of the protected zone were approved in 1989.⁶ The figure of a Protected Zone is an Area Under Special Management Regime (ABRAE). These spaces are subject to a set of rules and guidelines **aimed at the defense, conservation, and improvement of these areas due to their special characteristics**. Within the project area, it is located the **El Guácharo National Park**⁷, which covers part of the state of Sucre, as well as the **Alexander van Humboldt Natural Monument** or Guácharo Cave⁸. In addition, the project area includes part of the **Mochima National Park**, which is located north of the Turimiquire Reservoir.⁹

Figure 1: Map of the general location of the prioritized area



Source: WFP based on GIS layers provided by MINEC (2024)

3. This area was prioritized based on its importance in supplying water resources for the northeastern region. It is estimated that the **ZPMMT supplies water to 12% of the national population** (approximately 3,386,782

¹ Ministry of Popular Power for Foreign Relations, consulted on August 16, 2024.

² Consulate General of Venezuela in Bilbao, consulted on August 16, 2024.

³ Ministry of Popular Power for Ecosocialism, 2021, consulted on August 16, 2024.

⁴ MINEC (2024). Third National Communication on Climate Change and First Biennial Transparency Report of the Bolivarian Republic of Venezuela to the United Nations Framework Convention on Climate Change (2024).

⁵ Through Decree No. 105 published in Extraordinary Official Gazette No. 1655 (05/27/1974) and later modified by Decree 985 of June 17, 1975.

⁶ Decree N° 629

⁷ Decree n° 639 of December 7, 1989. Official Gazette No. 4158 of January 25, 1990.

⁸ Decree n° 180 of July 15, 1949. Official Gazette No. 22,970 of July 15, 1949.

⁹ Decree n° 1534 of December 19, 1973.

inhabitants), specifically serving the states of Anzoátegui, Monagas, Sucre, and Nueva Esparta¹⁰. This mountain massif is the source of important rivers in eastern Venezuela, where key six major river basins converge: the Neverí, Manzanares, Guarapiche, Amana, Carinicua, and San Juan basins. Its prioritization is further justified by the high vulnerability of its basins and ecosystems, the livelihoods of local communities, and the limited capacity to implement adaptation measures and appropriate agro-productive practices. The area's location also aligns with government priorities outlined in various strategies (see Section D).

- a. **Great Mother Earth Mission:** The project aligns with this proposal by contributing to the updating and study of watersheds, risk management in populated areas, and initiatives for reforestation, forest restoration, and the protection of key ecosystems, while promoting regenerative agriculture and preventing invasive species.
- b. The National Strategy for Land Degradation Neutrality (LDN) by 2030 prioritizes three of these basins—**Carinicua, Neverí, and Manzanares**—due to the high level of **land degradation**, with actions that include increasing forest cover and implementing conservation and watershed management plans.
- c. The Nationally Determined Contributions (NDCs) prioritize the
 - i. **Agricultural sector - food security**—through initiatives such as agroecological systems, agricultural bio inputs, and conservation crops like cocoa and coffee;
 - ii. **Urban agriculture sector** with the rescue of native seeds and good agricultural practices to contribute to the food system;
 - iii. **Water sector** with integrated water management in river basins and the early warning communication network;
 - iv. **Ecosystem sector** with initiatives such as ABRAE zones and land use planning, regulation plans, soil conservation and actions to combat desertification and droughts.
- d. The **National Adaptation Plan**, which is under development, has prioritized the agriculture, fishing, and water resources sectors.
4. The Food and Agriculture Organization (FAO)¹¹ estimates of annual averages for surface runoff (Qs) and renewable groundwater resources (QGW) show that **the selected region for the project has a limited relative water availability compared to other areas of the country**. In the Eastern region, the volume of internal renewable water resources (IRWR) is 54.98 km³/year, and the environmental flow requirements (EFR) are 12.23 km³/year. In contrast, the most abundant region is the Amazon region with 218.07 km³/year and 63.24 km³/year, respectively, while the minimum values correspond to the Lake of Valencia region, with values of 52.47 km³/year and 15.22 km³/year, respectively. The Eastern region is close to these lower values, highlighting the **importance of conserving the water resources of this area**.¹²
5. **Climate rationale:** Climate models for the ZPMMT predict that it will experience an increase in temperature, changes in precipitation patterns (including drier periods and more intense rainfall), and an increase in the **frequency of extreme weather events**, raising the risks and impacts associated with **torrential rains, cyclonic storms, floods, landslides** in mountainous areas, **and droughts**.^{13 14} Additionally, an increase in climate variability is expected due to the intensification of the El Niño-Southern Oscillation (ENSO) phenomenon, which could exacerbate the effects of these extreme events, intensifying floods in some areas and droughts in others. During the phases of the La Niña phenomenon, the region may experience more intense rainfall than usual, increasing the risk of floods and landslides (see more information in section f) Climatic Context).
6. The combination of these extreme weather events, along with greater climate variability and ecosystem degradation, generates impacts on **water resources**. The decrease in average rainfall coupled with an increase in temperature along with the rise in evapotranspiration, can lead to a significant reduction in groundwater recharge and river flow. This, in turn, decreases the availability of water in soils, water bodies, and the already degraded ecosystems of this area. These phenomena exacerbate water stress and limit the availability of drinking water and water for productive purposes. As a result, communities will face greater water insecurity, compromising **their agricultural livelihoods, food security**, increasing the risk of waterborne diseases, and exacerbating social and economic inequalities. Additionally, most of the parishes within the ZPMMT are categorized as **highly and very highly vulnerable to flood and landslide risks** and disasters.¹⁵ These

¹⁰ Population data of the three states according to the National Census of INE (2011)

¹¹ MINEC (2024). Third National Communication on Climate Change and First Biennial Transparency Report of the Bolivarian Republic of Venezuela to the United Nations Framework Convention on Climate Change (2024).

¹² *ibidem*

¹³ Guenni, Hernández & Fillipone, 2003; Guenni, Nobre, Marengo, Huerta & Sansó, 2013 cited in MINEC (2024). Third National Communication on Climate Change and First Biennial Transparency Report of the Bolivarian Republic of Venezuela to the United Nations Framework Convention on Climate Change (2024).

¹⁴ *ibidem*.

¹⁵ MINEC (2024). Third National Communication on Climate Change. First Biennial Transparency Report of the Bolivarian Republic of Venezuela to the United Nations Framework Convention on Climate Change (2024).

phenomena, intensified by more concentrated rainfall over short periods, lead to crop loss, damage to homes, disruption of basic services such as water and electricity, and isolation due to the destruction of access roads. These impacts compromise infrastructure and livelihoods, leaving communities at greater risk. Changes in the seasonality and amount of rainfall alter the hydrological cycle and natural flows, affecting key **ecosystem services** provided by the basins, such as water regulation and the supply of clean water to communities. The higher intensity of rainfall in short periods **accelerates erosion** on the slopes of the Turimiquire Massif, increasing sediment loads in rivers. This not only compromises **water quality** in reservoirs but also threatens the **livelihoods** that depend on these resources. Additionally, greater variability in river flows can increase pollutants concentration, deteriorating biodiversity and water quality. This deterioration, in turn, affects **agricultural livelihoods and the aquatic ecosystems** on which communities depend. (See more information in section g. Vulnerability and impacts and section h. Non-climatic drivers that exacerbate climate risks).

a) Agroecological conditions of the prioritized area

7. The **ZPMMT** is located in the northeastern mountain system of the Coastal Range, a mountain chain oriented east-west, approximately 350 km long and 80 km wide, corresponding to a part of the so-called Caribbean Mountain System.¹⁶ The massif covers altitudes ranging from 400 to 2,600 meters.
8. The Venezuelan territory is divided into fifteen bioregions, each with distinctive characteristics in terms of relief, **climate, vegetation, and land use**. The area of the project is located within the **Cordillera de la Costa Oriental** bioregion: this mountain range extends from the Unare depression to the Atlantic coast. The relief of this region is manifested in a variety of geographical features, such as arid plains, intramountain valleys, marine coves, floodplains, and mountainous areas crossed by numerous rivers.¹⁷
9. **Fauna and Flora:** The Turimiquire Massif is a region rich in biodiversity, with 308 bird species recorded, including 34 endemic subspecies. Regarding flora, 18% of the plants are endemic, although the plant diversity has not been extensively studied. This region exhibits high levels of endemism in both birds and plants.¹⁸ Regarding fauna, various aquatic species (fish, mollusks, crustaceans, phytobenthos, and macrophytes) and terrestrial species (mammals, amphibians, and reptiles) have been identified.¹⁹ Some fish species are of commercial interest, such as the striped catfish, the cachama, the coporo, and the sapoara. Additionally, the wildlife is equally diverse due to the variety of ecosystems present, including reptiles such as the Orinoco caiman, the baba, the morrocoy, and the iguana. Among the mammals, notable species include the acure, the lapas, the deer, the giant armadillo, the tapir, the peccary, the capybara, the howler monkey, the capuchin monkey, and the manatee.²⁰
10. Among the various **hydraulic works** developed in the ZPMMT, the Clavellinos, El Guamo, Neverí, and Mundo Nuevo reservoirs stand out, as well as three regional aqueducts: Nororiental, Campanero, and Maturín; and numerous local aqueducts.²¹ In 1988, the Santiago Mariño reservoir, known as the **Turimiquire reservoir**, was put into operation, which concentrates **60% of the water in the region** to supply cities such as Puerto la Cruz, Guanta, Cumaná, Barcelona, and the island of Margarita.²²
11. **Manzanares River Basin:** The Manzanares River has a basin of approximately 116,200 hectares.²³ It is isolated, with its source in the Turimiquire Hill at an altitude of over 2,000 meters above sea level, a length of 81 km.²⁴ and flows into the entrance of the Gulf of Cariaco. The drainage network of the Manzanares River behaves like a subsequent stream from its headwaters, channeling its waters until the Cumanacoa valley.²⁵ The vegetation can be characterized according to two main sectors: on one hand, the middle and upper basin, which is composed of a sparse canopy of the forest, rarely dense, and with a composition of high richness; and on the other hand, near the riparian areas, the vegetation has been impacted, leaving the soils devoid of plant cover.²⁶
12. **Neverí River Basin:** The Neverí River Basin is located between the states of Sucre and Anzoátegui and covers an area of 70,419.27 hectares. ²⁷ The Neverí River originates in the El Alcance hill at 2,000 meters above sea

¹⁶ Central University of Venezuela, 'Geological Atlas of the Coastal Mountain Range of Venezuela', 2004

¹⁷ *Ibidem*

¹⁸ BirdLife International (2024) Important Bird Area factsheet: Zona Protectora Macizo Montañoso del Turimiquire (Venezuela). Downloaded from <https://datazone.birdlife.org/site/factsheet/zona-protectora-macizo-montañoso-del-turimiquire-iba-venezuela> on 24/10/2024.

¹⁹ *Ibidem*

²⁰ Rodríguez, J. P., García-Rawlins, A., and Rojas-Suárez, F. 2015. Red Book of Venezuelan Fauna. Fourth edition. PROVITA and Fundación Empresas POLAR, Venezuela.

²¹ MARNR 2005. Land Use Plan for the State of Sucre. Diagnosis of the State of Sucre Hydrology. Series It/cotes/05. Preliminary Report.

²² León-González, A. A., and Quintana-Sánchez, G. 2008. Proposal for Sustainable Use of Water Resources, Juan Antonio Sotillo Municipality, Anzoátegui State. Special degree project. Faculty of Humanities and Education, School of Geography, Central University of Venezuela.

²³ Rivers at Risk of Venezuela Volume 3rd University of Lisandro Alvarado, Barquisimeto, Venezuela, 2020, consulted on August 21, 2024.

²⁴ INE, Government of the Bolivarian Republic of Venezuela, document "State of Sucre," consulted on August 22, 2024.

²⁵ Salazar, S. K., Alfonsi, C. Y., Gómez, B., Bello, J. A., Senior, W., and Troccoli, L. 2018. State of Conservation of the Hydrographic System of the Manzanares River, Eastern Caribbean Region of Venezuela, consulted on August 21, 2024.

²⁶ Rivers at Risk of Venezuela Volume 2nd University of Lisandro Alvarado, Barquisimeto, Venezuela, 2020, consulted on August 21, 2024.

²⁷ *Ibidem*

level and has a length of 117 km.²⁸ and flows into the Caribbean Sea, at the height of the city of Barcelona. It features interior valleys, hills, and slopes, with the rift that defines the Coastal Range and the Serranía del Interior standing out. The coastal area consists of sediments from the erosion of the mountainous Turimiquire regions, which are carried by the Neverí River. While the predominant natural vegetation in the area is forest associations, evidence of intervention is visible due to the land dedicated to subsistence agriculture.

13. **Guarapiche River:** The Guarapiche watershed covers 375,400 hectares.²⁹ It is located on the southern slope of the Turimiquire Mountain Massif, to the northwest of the state of Monagas, and is part of the San Juan River Basin. The Guarapiche River is essential due to the presence of the El Guamo reservoir along its course, which supplies water for irrigation and domestic use in several localities of the state of Monagas and plays a crucial role in flood control. The upper basin and part of the middle basin represent 22% of the area, with a size of 84,100 hectares, and are key for agricultural development. The valley represents 3% of the basin (10,500 hectares), with land suitable for diversified agriculture with gravity irrigation. Finally, in the lower sub-basin, its floodplains are of great economic importance regionally and nationally due to the presence of oil palm plantations and a processing facility for palm fruit.³⁰ The predominant vegetation of the sub-basin varies depending on the altitude. In the mountainous region to the northwest and northeast in the San Juan River valley, the humid forest predominates, a vegetation considered vital for the balance of water cycles and climate regulation, as it functions as a carbon reservoir. It is also considered one of the ecosystems with the highest level of diversity and productivity.³¹ To the east and south, over the plains, savanna vegetation is primarily observed, such as grasslands and thorny shrublands.³²
 14. **Carinicua River:** The Carinicua River sub-basin covers 118,700 hectares, where some of the richest lands in the area are found, representing approximately 17% of the total surface area.³³ These lands are used for the development of semi-intensive and extensive crops such as sugarcane, corn, pineapple, and vegetables, among others. The river has a length of 173 km.³⁴ and flows into the Cariaco Gulf. In terms of relief, the soils are classified as forest soils due to their severe topographical limitations and steep slopes, which impose strong restrictions on their agricultural use³⁵. Predominant vegetation consists of semi-deciduous forests, primarily found in the Paria Peninsula, the southeast swampy and alluvial plains, and the Turimiquire mountainous area. Gallery forests are also prominent, developing along the edges of watercourses and in the alluvial plains.³⁶
 15. The **Amana River** originates in the Turimiquire Mountain Massif at an altitude of 2,200 masl, at the confluence of the Las Cabeceras and Agua Blanca streams. Throughout its course, it also covers the municipalities of Acosta, Cedeño, Zamora, Santa Bárbara, and Maturín in the state of Monagas, and flows into the Guanipa River at an altitude of 5 masl, covering an area of 4,604 km².
 16. To the east of the mountain range lies the **San Juan River** valley (173 km in length), fed by small streams that drain over the hills, overflowing onto the alluvial plain of this river. The area has a tropical humid forest climate, characterized by dense forests, with tree species reaching heights between 25 meters and 30 meters. Herbaceous vegetation predominates on certain slopes. Soils in the valley are shallow and underdeveloped, but highly fertile, which allows for agricultural exploitation, primarily with permanent crops of coffee and citrus.³⁷
 17. **State of conservation of the basins.** Within the basins, a series of situations have been observed that have caused environmental impact – see section i. Non-climatic drivers that exacerbate climate-risks for more information. Nevertheless, in the Turimiquire Mountain Massif, the state of conservation is high due to the presence of a protected zone. However, on the slopes and margins of the basin, migratory and subsistence agriculture has reduced the few forest remnants that remain in the area.³⁸
- b) Socioeconomic Characteristics and Livelihoods**
18. According to data from the XIV National Population and Housing Census (2011), around 172,000 people (48.5% women) live within the MMT Protected Zone in rural areas and some populated centers, as shown in Table 1.

²⁸ INE, Government of the Bolivarian Republic of Venezuela, document "State of Sucre," consulted on August 22, 2024.

²⁹ Rivers at Risk of Venezuela Volume 3. Universidad Centroccidental Lisandro Alvarado, Barquisimeto, Venezuela, 2020. Consulted on August 21, 2024.

³⁰ INE. 2007. Geoenvironmental Reports 2007. Monagas State. National Institute of Statistics. Venezuela.

³¹ FAO 2022, Technical Manual on the Restoration of Tropical Rainforests in the Bolivarian Republic of Venezuela.

³² Rivers at Risk of Venezuela Volume 3 University of Lisandro Alvarado, Barquisimeto, Venezuela, 2020, consulted on August 21, 2024.

³³ Ibidem.

³⁴ Ibidem.

³⁵ INE, Government of the Bolivarian Republic of Venezuela, document "State of Sucre," consulted on August 22, 2024.

³⁶ Rivers at Risk of Venezuela Volume 3 University of Lisandro Alvarado, Barquisimeto, Venezuela, 2020, consulted on August 21, 2024.

³⁷ Ibidem.

³⁸ Popular Business Foundation (2010), FS Carreño, [Chapter 51. State of Monagas](#).

³⁹ Ibidem.

Table 1. Population within the ZPMMT by state, municipality, parish, and percentage of women.

Municipality	Population of the municipality within the ZP	% Women	% Men
Population of the state of Anzoátegui within the ZP			
Guanta	37	49.8%	50.2%
Juan Antonio Sotillo	29,816	49.5%	50.5%
Libertad	2,752	41.7%	58.3%
Pedro María Fréites	4,835	46.9%	53.1%
Simón Bolívar	5,875	48.8%	51.2%
Population of the state of Monagas within the ZP			
Acosta	18,014	47.5%	52.5%
Caripe	33,685	49.0%	51.0%
Cedeño	888	42.6%	57.4%
Piar	4,300	47.5%	52.5%
Population of the state of Sucre within the ZP			
Montes	53,711	48.9%	51.1%
Ribero	10,428	48.1%	51.9%
Sucre	7,893	47.6%	52.4%
Total population within the ZP	172,235	48.5%	51.5%

Source: own elaboration based on GIS data and the XIV National Population and Housing Census 2011

19. The 3 states have a relatively **young population**, with around 39% of the population being under 20 years old³⁹. The age/gender comparison shows an almost uniform distribution of the population. The dependency ratio⁴⁰ in Monagas, it is 53.3%, in Anzoátegui 49.1%, and in Sucre 53.6%. In 2023, the rate of the economically active population (EAP)⁴¹ represented 55.7% of the total population, with an overall employment rate of 51.1%. Significant gender discrepancies exist: the employment rate is 29.9% for women and 47.5% for men, indicating a higher male presence in employment.
20. The **illiteracy** rate in 2011 in the states of Anzoátegui, Monagas, and Sucre was 3.9%, 4.7%, and 7%⁴² respectively. Regarding the **labor market**, at the national level in 2023, 50.7% of the active population had secondary education and nearly 36% had university studies, while the employed population is 50% and 37.5%, respectively.⁴³
21. In 2011, in the states of Anzoátegui, Monagas, and Sucre, 25.7%, 26%, and 29.8% of households, respectively, had at least one **Unsatisfied Basic Need (UBN)**, with a higher incidence in households with dwellings made of inadequate roofing, wall, and/or flooring materials⁴⁴. In turn, households with access to water through aqueducts or pipelines in Sucre accounted for 88.4%, in Anzoátegui 86.2%, and in Monagas 74%, followed by water delivered by tanker trucks or wells with pipelines. However, 2.4% of households in Sucre obtained water directly from rivers or streams
22. In relation to the **Human Development Index (HDI)** of 2019, the country has a value of 0.711, with a life expectancy at birth of 72.1 years. Meanwhile, the **Gender Inequality Index (GII)** has a value of 0.479.⁴⁵
23. In 2018, the **Gross Domestic Product (GDP)**⁴⁶ was 315.400 million bolivars (1997 base year). An estimated real GDP growth of 4.6% in 2023 signals progress in the country's economic recovery,⁴⁷ largely driven by the recovery of the oil sector. Agriculture contributes to less than 4% of the GDP.⁴⁸ Similarly, almost 4% of the total employed population works in the agricultural sector, with 65.5% of them engaged in the informal sector.⁴⁹
24. The country is in a phase of gradual economic recovery and has set priorities in its economic and social development plan (Plan de la Patria and the 7 Transformations Plan 2025-2030), with a special focus on areas such as food security, nutrition, education, and environmental conservation.

³⁹ XIV National Population and Housing Census, National Institute of Statistics (INE) 2011.

⁴⁰ The total number of individuals under 15 years of age and over 65 years of age relative to the total population between 15 and 64 years of age.

⁴¹ Labor Force Indicators 2023, Household Survey (EHM); INE, 2023.

⁴² XIV National Population and Housing Census, INE 2011.

⁴³ Labor Force Indicators 2023, Household Survey (EHM); INE, 2023.

⁴⁴ XIV National Population and Housing Census, INE 2011.

⁴⁵ UNDP, [Human Development Report](#), 2020.

⁴⁶ Central Bank of Venezuela.

⁴⁷ Ibid.

⁴⁸ Ibid.

⁴⁹ Labor Force Indicators 2023, Household Survey by Sampling (EHM); INE, 2023.

25. In recent years, **food security** in the Bolivarian Republic of Venezuela has been impacted by a confluence of both internal and external factors. The country has been affected by economic issues, including external factors such as the increase in global demand, food prices, the cumulative effects of the 2019 coronavirus disease pandemic, climate risks, and disruptions in the global supply chain, as well as limited access to international markets and investment.⁵⁰ Unilateral Coercive Measures (UCM) have restricted the country's access to international markets, making it difficult to import food, medicines, and other essential supplies. This has impacted the Venezuelan economy, decreased local production, and increased food prices.⁵¹
26. In the project area, the **economic potential** is linked to family and subsistence agriculture, extensive livestock farming, fishing, water supply, agro-productive livelihoods (such as coffee, cassava-derived products, sugar production, fish-products, among others), tourism, and ecotourism.
27. **Water supply production** is the most important activity in the protected area, where the Turimiquire Reservoir and the Clavellinos Reservoir provide potable water for irrigation and human consumption to rural communities and the cities of Barcelona, Puerto La Cruz, and Guanta in Anzoátegui state; Cumaná, Carúpano, Cumanacoa, Cariaco, Casanay in Sucre state, and the populations of Nueva Esparta state. Additionally, the Guamo Reservoir supplies water for irrigation, agroindustries (e.g., coffee processing plants in Caripe), and human consumption to urban and rural centers in Monagas state, making this area a vital hydrological reserve for the eastern region of the country.
28. **Subsistence agricultural activity** established on sloping terrains is the most widespread livelihood for families in the ZPMMT and the associated basins. The "conuco" is a form of family farming for self-consumption, practiced in the area since ancient times. This modality allows families to consume their own production, exchange goods with other producers, and use seeds saved from previous harvests. The activities of planting, caring for, and harvesting the conuco are repeated annually and often under constant conditions. Its establishment in some cases begins with the "**slash-and-burn**" method of clearing vegetation, which results in the disturbance of primary forests. This practice has significant environmental impacts, such as the loss of forest cover, biodiversity, and habitats, as well as soil degradation. In the area, crops like coffee, corn, cassava, sugarcane, cocoa, sweet potato, tobacco, yam, cotton, celery, watermelon, pineapple, and bananas are cultivated. Additionally, poultry farming, rabbit breeding, and fishing show significant numbers, along with the exploitation of forest resources.⁵²
29. Additionally, Sucre has a natural port with loading and unloading facilities where coffee, tobacco, and sugarcane are exported, along with a significant number of beaches for tourism. With the attraction of the **Mochima National Park**, this state has made tourism a key factor in its development, particularly in the coastal populations. Meanwhile, the **El Guácharo National Park** and the Alexander Von Humboldt National Monument are major tourist attractions, and the most visited in the state of Monagas, highlighting the potential to develop ecotourism activities in the project area.
- c) Indigenous Peoples**
30. The Constitution of the Bolivarian Republic of Venezuela (1999) establishes that the country is multiethnic and pluricultural. According to the 2011 census by the National Institute of Statistics (INE), Indigenous Peoples (IP) represent 2.66% of the population, with 724,592 people, of whom 50.45% are women and 49.55% are men. There are 52 recognized IP in the country. In the project area, populations from the Kariña, Chaimas, Warao, and Cumanagoto groups have been identified, with the Kariña being the largest population.
31. Within the project states, 63.5% of the indigenous population in Anzoátegui lives in rural areas⁵³, while in Monagas, 67.4% live in rural areas, and in Sucre, 40.9%. The dependency ratio is 54.8% in Anzoátegui, 68.8% in Monagas, and 70.3% in Sucre, with a higher incidence of the dependency ratio of children under 15 years old. The illiteracy rate is 7.4% in Anzoátegui, 23.3% in Monagas, and 13.9% in Sucre, and 39.5%, 33.3%, and 40.4% of the indigenous population over 3 years old, respectively, attended an educational center, with 66.2% of children under 19 years old attending an educational center nationwide.
32. At the national level, 67% live in houses, 22.9% live in huts, and 5.9% live in indigenous housing. Meanwhile, 58.8% received water through aqueducts or pipes, 15.6% through tanker trucks, and 10.8% from rivers, streams, or creeks. Additionally, 9.2% lacked electricity service, 34.5% burned their trash, and 28.5% did not have a toilet or latrine.
33. The Kariña population in Venezuela is composed of around 12,000 people distributed across the states of Anzoátegui, Bolívar, Monagas, and Sucre. Traditionally sedentary, their livelihood is based on subsistence

⁵⁰ Bolivarian Republic of Venezuela interim country strategic plan (2023–2025), WFP 2023.

⁵¹ Food and Agriculture Organization (FAO). (2023). The [Bolivarian Republic of Venezuela: Humanitarian response plan 2022-2023](https://goo.su/BoGjKxT). Rome. <https://goo.su/BoGjKxT>.

⁵² Brigada de Turimiquire, Comprehensive Study of the Economic-Social Region of Turimiquire.

⁵³ Rural areas with population centers of less than 2500 inhabitants.

agriculture (conucos), complemented by hunting and fishing. They cultivate products such as cassava, maize, sweet potato, plantain, and fruits in conucos, lands near morichales that they use for a limited time before rotating them to prevent overexploitation. In addition to agricultural production, they make crafts and collect medicinal plants. Their ancestral knowledge of the climate and natural resources allows them to adjust their activities according to environmental conditions, using techniques such as the use of drought-resistant varieties and agroforestry or bioindicators.⁵⁴

34. An important part of Venezuela's **forests** is under the **protection of indigenous territories**, for whom these ecosystems are essential for their family and cultural life. The active participation of these communities is key to transforming agro-productive practices and promoting climate-resilient rural development, based on respect for their knowledge and traditional practices.⁵⁵

d) Governance of the Protected Area

35. The Ministry of People's Power for Ecosocialism (MINEC) is the National Environmental Authority responsible for the conservation and protection of the environment, environmental sanitation, natural resources, biodiversity, and watersheds, as well as the ecosocialist management of waste and residues. MINEC is the governing body on climate change matters and, within its competencies and the agencies under its purview, it monitors and evaluates the implementation of comprehensive climate change management.
36. In 2021, the Presidential Commission for Climate Change was established permanently in the country by Decree No. 4.612, as an advisory body to the President of the Bolivarian Republic of Venezuela on climate change matters. MINEC leads the Presidential Commission for Climate Change and is also the National Designated Authority (NDA) for the Green Climate Fund and the Adaptation Fund. Through the General Directorate of Adaptation and Mitigation to Climate Change, national public policies and plans for adaptation and mitigation to the environmental crisis are managed and coordinated with social actors at the national level.
37. The entities most related to the project are: The National Observatory Against the Climate Crisis as a research body to address the climate crisis, the National Foundation for Environmental Education (Fundambiente) to develop educational plans on environmental matters, the National Parks Institute (INPARQUES) to govern public policies aimed at the protection and management of National Parks, Natural Monuments, and Recreation Parks, and the Latin American Forestry Institute (IFLA) for studies and implementation of conservation and forest restoration projects and biodiversity in the country and, therefore, within the scope of the project in the states of the ZPMMT.
38. Regarding the water resources sector, the governing body is the Ministry of Popular Power for Water Affairs (MINAGUAS), which is responsible for the care, treatment, monitoring, and protection of drinking water, wastewater, river basins, water resources, and reservoirs, as well as the implementation of public policies for the regulation and control of the provision of services.
39. Disaster risk management and citizen security in cases of climatic impact are overseen by the Ministry of Popular Power for Interior Relations, Justice, and Peace (MPPRIJP) through its Vice Ministry of Risk Management and Civil Protection and the National Civil Protection and Disaster Management Directorate, Strategic Regions for Damage Assessment and Needs Analysis (REDAN), the Zones of Damage Assessment and Needs Analysis (ZOEDAN), the Great Mission Peace Quadrants, and the Humanitarian Task Force "Simón Bolívar." These entities are responsible for designing, directing, planning, proposing, executing, coordinating, supervising, and evaluating the comprehensive management of socio-natural and technological risks in the country, as well as the national civil protection and disaster management system at different levels of national public administration.
40. Also affiliated with the MPPRIJP, the National Institute of Meteorology and Hydrology (INAMEH) is the official body responsible for regulating and coordinating national hydrometeorological activities and dissemination.
41. The Ministry of Popular Power for Productive Agriculture and Lands (MinPPAPT) and its affiliated entities: National Institute for Integrated Agricultural Health (INSAI), Fund for Socialist Agricultural Development (FONDAS), National Institute of Agricultural Research (INIA), and the National Institute of Lands (INTI) are key for agricultural activities and are relevant entities for agricultural livelihood activities within the project.
42. The Ministry of Popular Power for Women and Gender Equality (MinMujer) is the governing body for public policies, plans, programs, and projects of the Venezuelan State, promoting women's participation in popular power⁵⁶ and ensuring the exercise of their rights and gender equality. Likewise, the Ministry of Popular Power

⁵⁴ Olivares, B. O. (2014). "The Relationship between Nature, Climate, and Spirituality of the Agricultural Indigenous Karifña Communities of the State of Anzoátegui, Venezuela". *Tiempo y Espacio*, 61(January-June), 129-150.

⁵⁵ MINEC (2024). Third National Communication on Climate Change and First Biennial Transparency Report of the Bolivarian Republic of Venezuela to the United Nations Framework Convention on Climate Change. 2024.

⁵⁶ It is the full exercise of sovereignty by the people in the political, economic, social, cultural, environmental, international spheres, and in all areas of development and progress of society, through its various and diverse forms of organization, which build the communal state. Article 2 of the Organic Law of Popular Power published in Official Gazette No. 6.011 Extraordinary on December 21, 2010. Organic Law of Indigenous Peoples and Communities. Prior and informed consultation, articles 11 onward and its modifications in Official Gazette No. 6812 Extraordinary on June 6, 2024.

for IP is responsible for the formulation, monitoring, and control of policies and programs aimed at guaranteeing the rights of indigenous communities, as well as the dignification of the IP and communities of the country, their traditional knowledge, and the fulfillment of free, prior, and informed consent, among other mandatory safeguards of the Adaptation Fund (AF).

43. The Ministry of Popular Power for Science and Technology (MENCYT) and its affiliated bodies, such as the scientific councils in the eastern region of the country, aim to formulate, implement, evaluate, and continuously improve the application of policies aimed at promoting and strengthening access to knowledge and science, in order to integrate productive practices with scientific knowledge.
44. At the local level, governance is managed by state and municipal governments, which are responsible for planning and executing strategies, actions, funds, and budgets for disaster response plans in socio-natural disasters. They have the authority through their legislative power to establish resolutions and decrees, as well as special plans and funds in cases of emergencies and climate-related disasters.
45. The planned activities for communities and social organizations must be coordinated through the "Ministry of Popular Power for the Communes, Social Movements, and Urban Agriculture," which is the entity responsible for developing and strengthening Popular Power. The Vice Ministry of Popular Power for Urban Agriculture (VMPPAU) is the substantive unit in charge of promoting urban, communal, and family agriculture, as well as actions in agroecology and strengthening and diversifying livelihoods and agroforestry.

e) **Climate Context**

Observed Climate

Temperature

46. The **average annual temperatures** vary depending on the region, as previously described, the relief influences the temperature and rainfall regimes. The temperatures range between 20°C and 32/34°C according to the climatograms of the National Institute of Meteorology and Hydrology (records from 1985-2015)⁵⁷ for the states of Anzoátegui and Monagas respectively; and between 17.6°C and 30°C for Sucre.⁵⁸ According to the Third National Communication (TNC), the lowlands experience a tropical climate with temperatures exceeding 28°C, while higher altitude areas have lower temperatures, ranging between 10°C and 15°C.⁵⁹
47. The **average sea surface temperature** in the Caribbean Sea area is between 26.4 °C and 27.7 °C, and it is slightly lower compared to the Southeastern coast for the base period of 2001-202.⁶⁰

Precipitation

48. Anzoátegui, Sucre, and Monagas show significant variations in **precipitation patterns**. These regions have humid climates with a dry season period, and their annual precipitation varies between 900 mm and 1500 mm.⁶¹
49. The analysis of precipitation trends between 2000 and 2020 shows significant changes in various regions of Venezuela, confirming the findings of previous research.⁶² Additionally, an increase in the intensity of extreme precipitation events as well as drought periods has been observed. According to this same series, an alteration in dry and wet pulses can be seen, with the dry periods being particularly significant, sometimes lasting several years.⁶³
50. Regarding the **average annual precipitation** and the **occurrence of drought events**, the Eastern region has a historical precipitation (period 1970–2000) of 1155 mm, making it the **fourth driest in the country** (see Fig.2). Additionally, the area experienced an average of 10-15 dry years between 1981 and 2020 (see Fig.3).⁶⁴

⁵⁷ INAMEH: National Institute of Meteorology and Hydrology.

⁵⁸ Ibidem.

⁵⁹ MINEC (2024). Third National Communication on Climate Change and First Biennial Transparency Report of the Bolivarian Republic of Venezuela to the United Nations Framework Convention on Climate Change (2024).

⁶⁰ Ibidem.

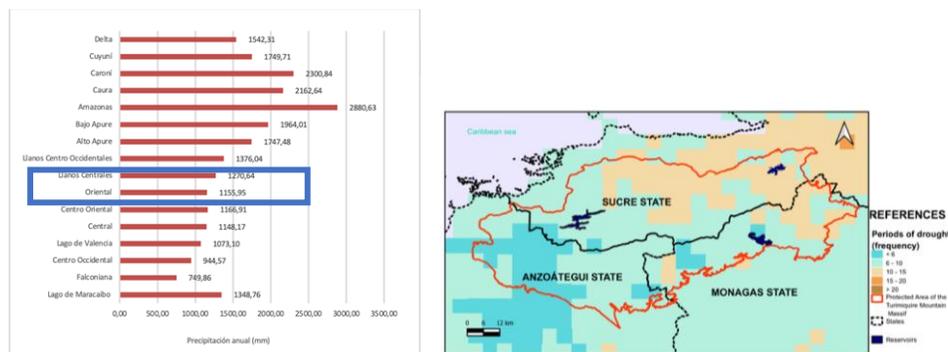
⁶¹ INAMEH: National Institute of Meteorology and Hydrology.

⁶² MINEC (2024). Third National Communication on Climate Change and First Biennial Transparency Report of the Bolivarian Republic of Venezuela to the United Nations Framework Convention on Climate Change (2024).

⁶³ Dirk R. Thielen; Mary L. Puche; Paolo Ramoni-Perazzi; José I. Quintero; Guillermo Bianchi; Ezequiel Zamora Ledezma; Alberto Quintero; Marco Marquez; Wilmer Rojas. [Responses of Precipitation in Venezuela to the Unprecedented Global Ocean Water Warming](#). Journal of Climatology. Vol. 24 (2024). DOI: 10.59427/rcl/2024/v24.22-43.

⁶⁴ MINEC (2024). Third National Communication on Climate Change and First Biennial Transparency Report of the Bolivarian Republic of Venezuela to the United Nations Framework Convention on Climate Change (2024).

Figure 2: Annual precipitation (mm) 1970-2000 by hydrographic region; **Figure 3:** frequency of dry spells and droughts between 1981 and 2021



Source: MINEC (2024). Third National Communication and First Biennial Transparency Report of the Bolivarian Republic of Venezuela to the United Nations Framework Convention on Climate Change.

Tropical cyclones

- Venezuela is exposed to the impacts of hurricanes due to its location in the Caribbean strip with a high level of risk at the national level. For the states involved in this project, and on a scale from very low to high, the cyclone risk is **medium** (Monagas and Anzoátegui) and **high** (Sucre).⁶⁵ In the Caribbean Sea basin, the cyclone season occurs between June and November, with peaks of activity between mid-August and late October. Additionally, the return period for the direct incidence of hurricanes is close to 40 years, and for tropical storms, it is 24 years. Similarly, since the 1990s, an increase in the frequency of tropical cyclones along paths near Venezuela (south of 10° N) has been observed, indicating greater variability and climate change. Among the most significant events, Hurricane Joan in 1988 and the effects of tropical storms such as Matthew in 2016, Bret and Don (2017), and more recently Hurricane Julia (2022) and Beryl (2024) caused heavy rains, leading to flooding and landslides in Venezuela, affecting areas in several states and coastal regions, including the northeastern zone.⁶⁶

Projected climate⁶⁷

Temperature

- The analysis of the HadGEM3-GC31-LL and MIROC6 models (used for calculating variations in the TNC), for the Turimiquire Mountain Massif region, shows that in the Ssp245 scenario, the projections of **minimum temperature** increase for the period 2021-2040 range between 1.25°C and 1.80°C. For the period 2041-2060, the projections increase to values between 1.73°C and 2.13°C. In the Ssp585 scenario, the increase in minimum temperature for 2021-2040 ranges between 1.32°C and 1.79°C, and for 2041-2060, the projections are between 2.15°C and 2.67°C.⁶⁸
- For the northern coastal area, according to the TNC, an increase of up to 2°C in **average temperature** is expected.⁶⁹
- For the increase in **maximum temperature** in the Ssp245 scenario, an increase between 0.88°C and 2.11°C is estimated for the period 2021-2040, and between 1.52°C and 2.64°C for 2041-2060. In the Ssp585 scenario, the projected increases under these two models are between 1.17°C and 1.96°C for the period 2021-2040, and between 1.92°C and 3.10°C for 2041-2060.⁷⁰
- Since the year 2000, Venezuela has faced extreme droughts that tend to be persistent⁷¹.** Most of the climate models used by the Intergovernmental Panel on Climate Change (IPCC), in their technical reports, show

⁶⁵ Think Hazard, country: Venezuela, parameter: cyclone, consulted on 30/09/2024.
⁶⁶ INAMEH (2017) Vásquez A. Héctor J/ Ing. Josana Montes de Oca, [Tropical Storm Bret Once Again Impacted Venezuelan Territory](#).
⁶⁷ MINEC (2024). Third National Communication on Climate Change and First Biennial Transparency Report of the Bolivarian Republic of Venezuela to the United Nations Framework Convention on Climate Change (2024).
⁶⁸ MINEC (2024). Tercera Comunicación Nacional sobre Cambio Climático. Y Primer Informe Bienal de Transparencia de la República Bolivariana de Venezuela a la Convención Marco de las Naciones Unidas sobre el Cambio Climático (2024).
⁶⁹ Ibidem
⁷⁰ Ibidem
⁷¹ Trejo, Barbosa, Ruiz, and Peñalosa-Murillo, 2016, cited in MINEC (2024), Third National Communication on Climate Change and First Biennial Transparency Report of the Bolivarian Republic of Venezuela to the United Nations Framework Convention on Climate Change (2024).

Venezuela exposed to an increase in the frequency of extreme hydrometeorological events such as **prolonged droughts**. The increase in the frequency of droughts has been linked to a rise in near-surface minimum air temperatures⁷².

56. Considering the entire maritime coastline, a sea **temperature increase** is projected between 2% and 8%.⁷³

Precipitation

57. The models project different situations depending on the scenario and model, though a decrease in total annual precipitation is evidenced in all of them ⁷⁴.

58. **Scenario Ssp245: a decrease in total annual precipitation** is anticipated, with values ranging from a reduction of 3% to 10% for the period 2021-2040. Seven months show a negative variation under the HadGEM3-GC31-LL model between October and April, with a maximum value of -19.16% compared to the base period values⁷⁵ and 6 months under the MIROC6 model. For the remaining months, the increases range from +0.15% to +16.81%, and between 5% and 12% for 2041-2060. Under the HadGEM3-GC31-LL model, 11 months are projected with a negative variation, with July as an exception, and a maximum negative delta of -22.08% and a positive delta of 12.21% in May. For the MIROC6 model, 7 months show a negative variation, reaching up to -8.13%, and the maximum positive variation is +20.73% in April. In contrast, the Ssp585 scenario **shows greater variability with possible increases in some periods and decreases in others**. For the period 2021-2040, a change in annual precipitation is projected, ranging from a decrease of 2% to an increase of 5%. Under the HadGEM3-GC31-LL model, all 12 months show a negative variation, with a maximum value of -14.13% compared to the base period values. The MIROC6 model shows a decrease in precipitation for 8 months, with a maximum of -7.21%. For the remaining 4 months, this model predicts increases ranging from +0% to +9.29%. For 2041-2060, variability increases, with projections ranging from a 7% reduction to a 3% increase, suggesting a **pattern of more pronounced and extreme seasonal changes**.

Tropical cyclones

59. Regarding future projections, the increase in ocean temperature associated with the RCP 2.6 and RCP 8.5 scenarios will increase the frequency and intensity of tropical cyclones in the Caribbean ⁷⁶ The Inter-American Development Bank (IDB) and studies from the World Bank (WB) confirm that, under the 8.5 scenario, an increase in hurricane intensity is expected, with stronger winds and more intense rainfall. Although the results are not conclusive due to their high variability⁷⁷, These seem to indicate a decrease in quantity towards the end of the century, but an increase in intensity and the frequency of Category 4 (winds between 209-251 km/h) and Category 5 (winds above 252 km/h) events⁷⁸. These climate changes will increase the risks of indirect impacts in Venezuela, exacerbating the vulnerability of coastal areas and the country's critical infrastructure.

Climate variability

ENSO phenomenon (El Niño – Southern Oscillation)

60. In Venezuela, the main cause of climate variability is linked to the ENSO phenomenon, an interaction process between the ocean and the atmosphere that has two phases: the warm phase, known as El Niño, and the cold phase, called La Niña. These phases influence the temporal and spatial distribution of rainfall in much of the country, generating both periods of intense droughts and episodes of extraordinary rainfall. In general terms, El Niño events are associated with a reduction in precipitation levels, while during La Niña, precipitation levels are usually higher than normal (Martelo & Pérez, 2010⁷⁹. These droughts have had negative impacts on agriculture, water availability, and hydroelectric power generation ⁸⁰. In contrast, La Niña (positive pulse) tends to cause more intense rainfall and increases in river flow, often resulting in severe flooding.⁸¹
61. Scientific evidence suggests that the ENSO phenomenon has intensified extreme weather events in Venezuela ⁸² With climate change, it is projected that extreme El Niño and La Niña events will increase in frequency and intensity. As previously described, climate models under greenhouse gas emission scenarios such as RCP 4.5 and 8.5 suggest that more intense phenomena could occur more frequently towards the end of the 21st century.

⁷² Paredes-Trejo, Olivares, Movil-Fuentes, Arévalo-Groening, and Gil, 2023, cited in MINEC (2024), Third National Communication and First Biennial Transparency Report of the Bolivarian Republic of Venezuela to the United Nations Framework Convention on Climate Change (2024).

⁷³ MINEC (2024) Third National Communication on Climate Change and First Biennial Transparency Report of the Bolivarian Republic of Venezuela to the United Nations Framework Convention on Climate Change (2024).

⁷⁴ Ibidem.

⁷⁵ The base period (climatic normal) is understood to be: 1970-2000.

⁷⁶ IPCC 2019, The Ocean and the Cryosphere in a Changing Climate.

⁷⁷ "Dominican Republic: Climate and Development Report," World Bank, 2023.

⁷⁸ PAHO UNCCD, WHO [Health and climate change: country profile 2020](#), Trinidad and Tobago.

⁷⁹ Martelo & Pérez, 2010, cited in MINEC (2024). Third National Communication on Climate Change.

⁸⁰ "How will climate change change El Niño and La Niña?" Noviembre 2020, NOAA Research.

⁸¹ "Assessment Report Working Group II: Impacts, Adaptation, and Vulnerability, Chapter 14: Latin America". IPCC.

⁸² MINEC (2024). Third National Communication on Climate Change and First Biennial Transparency Report of the Bolivarian Republic of Venezuela to the United Nations Framework Convention on Climate Change (2024).

This would imply a higher incidence of prolonged droughts during El Niño and more intense rainfall and extreme events during La Niña.⁸³

62. According to INAMEH⁸⁴, between 1972-1974, a significant drought occurred worldwide; for the period 1982-1983, the impact in Venezuela was weak. In contrast, for the period 1997-1998, the consequences recorded in the country were very severe, and the same effect was recorded in 2009/2010.

f) Vulnerability and observed and projected impacts of climate change in the ZPMMT

63. The various climate threats faced by the project area **significantly affect the population**, impacting not only the **lives, health, and livelihoods** of thousands of people but also severely deteriorating the region's infrastructure, including roads, housing, and water supply systems, as well as food security.
64. In the report 'Vulnerability and Adaptation to Climate Change Index in the Latin America and the Caribbean Region' (CAF, 2014), the country has been classified with '**high risk**,' and within its states, **Monagas and Anzoátegui** are considered at '**extreme risk**,' while **Sucre is at 'high risk.'** The report highlights that, between 1980 and 2013, Venezuela recorded a total of 30,534⁸⁵ fatalities due to climate-related disasters with recorded economic losses of 4,824,776 thousand dollars, with **floods being the most frequent and costly events.** According to current data from EM-DAT, the country has recorded a total of 219 fatalities in the last 10 years, and between the years 2000 and 2024, 38 have been accounted for⁸⁶ events with a total of 1,925,010 affected people.
65. In Venezuela, the **incidence of extreme weather events** has increased in the last decade⁸⁷. In this regard, the communities in the ZPMMT face the risks and impacts associated with frequent extreme rainfall, tropical storms, floods, landslides in mountainous areas, and droughts⁸⁸.

Water resources sector

66. The result of the projections from the TNC concludes that the vulnerability **due to variation in the average annual precipitation** by hydrographic region, using the HadGEM3-LL model and SSP5-8.5 scenario for the 2020-2040 period, for the Turimiquire Massif region is **High (4/5) and Very High (5/5)**. As for vulnerability due to an increase in maximum temperature by hydrographic region, the result indicates a medium level (3/5).⁸⁹
67. Regarding the **climate vulnerability of water resources by storage capacity** in reservoirs by hydrographic region, a factor of importance to consider since they supply the majority of the population within the ZPMMT, for the HadGEM3-LL-SSP2-4.5 scenario, the vulnerability is medium, and for the **HadGEM3-LL-SSP2-8.5, it is medium and high.**
68. Córdova y López (2015) The forecasted reduction in average precipitation and increase in average temperatures implies a decrease in water availability in the basins and the recharge of aquifers. The **impact on the water level in the three reservoirs** in the project area represents a problem of great social, environmental, and economic relevance, as it directly affects the **water and food security** of the communities. Córdova and López (2015).⁹⁰ Quiroz et al. (2016)⁹¹ y Páez-Pumar (2017)⁹² have documented the vulnerability of water supply systems and hydroelectric power generation in Venezuela to climate change and extreme droughts. During the 2015 drought and the first half of 2016, for example, the reduction in the water level of the main reservoirs was observed, reaching levels close to collapse, highlighting a difficulty in the system to continuously supply basic public services such as electricity, drinking water, and irrigation water.⁹³
69. Studies on the ZPMMT show that for the Turimiquire reservoir, two severe droughts were identified in its catchment area between September 1987 and January 1988, and from April 1990 to July 1991. For the El

⁸³ "Rare 'triple' La Niña climate event looks likely — what does the future hold?", June 2022, Nature.

⁸⁴ "Learn about the impacts of the 'El Niño' phenomenon on Venezuela" - INAMEH Press 05.01.2016.

⁸⁵ CRED, 2014. The International Disaster Database, Centre for Research on the Epidemiology of Disasters. Available at: <http://www.emdat.be/> [Consulted on March 25, 2014]

⁸⁶ The international disaster database EM-DAT collects information on disasters when they meet any of the established parameters, which include the declaration of a state of emergency or the request for international assistance.

⁸⁷ Viloria, Olivares, García, Paredes-Trejo & Rosales, 2023, cited in MINEC (2024). Third National Communication on Climate Change and First Biennial Transparency Report of the Bolivarian Republic of Venezuela to the United Nations Framework Convention on Climate Change (2024).

⁸⁸ Guenni, Hernández & Fillipone, 2003; Guenni, Nobre, Marengo, Huerta & Sansó, 2013, cited in MINEC (2024). Third National Communication on Climate Change and First Biennial Transparency Report of the Bolivarian Republic of Venezuela to the United Nations Framework Convention on Climate Change (2024).

⁸⁹ Chapter 3.5.13: Risks and Disasters Sector, MINEC (2024). Third National Communication on Climate Change and First Biennial Transparency Report of the Bolivarian Republic of Venezuela to the United Nations Framework Convention on Climate Change (2024).

⁹⁰ Córdova Rodríguez, J. R. and López Sánchez, J. L. 2015. Extreme events: floods, landslides, and droughts. Chapter 8 (pp. 287-358). In: Gabaldón, A., Rosales, A., Buroz, E., Córdova, J. R., Uzcátegui, G. and Iskandar, L. (Eds.). Water in Venezuela: A scarce resource. Fundación Empresas Polar. Caracas, Venezuela.

⁹¹ Quiroz Ruiz, I., Paredes Trejo, F. and Guevara Pérez, E. 2016. Impact of droughts on the contributing basins of the large reservoirs in Venezuela. *Ágora de heterodoxias*. 2(3): 65-89.

⁹² Páez-Pumar Hernández, E. 2017. Hydraulic infrastructure to maintain continuity of service in water for purification, irrigation, and power generation during natural climatic phenomena. Work for incorporation as a corresponding member from the state of Vargas. National Academy of Engineering and Habitat (ANIH). Caracas, Venezuela.

⁹³ Martínez Moreno, E. The crisis of services and river ecosystems. Chapter 8. Rivers at Risk of Venezuela. Volume 3. 2020.

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Guamo reservoir, there were 5 droughts that occurred between December 1972 and November 1973, from March to June 1975, from November 1977 to March 1978, from November 1980 to March 1981, and from April to October 2003. Meanwhile, in the Clavellinos reservoir, the contributing catchment was exposed to five significant dry events: from January to October 1973, from October 1977 to March 1978, from June to November 1978, from June to September 2001, and from November 2002 to September 2003. These consequences are worsened considering the increased water consumption, either due to population growth or the rise in irrigation needs.⁹⁴

70. Additionally, another study analyzes the results of examining abrupt changes in precipitation in the country's main hydrographic regions, covering the period from 1940 to 2016. The findings show that, during the **June-July-August quarter**, the start of the rainy season in much of the country, a **decrease in precipitation was recorded in approximately 70% of the territory**. In contrast, between **September and November**, the end of the rainy season, an **increase in precipitation was observed over 73%** of the continental region. The climatic variability evidenced in the project area has the potential to temporarily alter the hydrological regime of the rivers, compromising the integrity of these ecosystems and **affecting the communities that depend on water supply, environmental services, and the livelihoods they provide**.⁹⁵

Vulnerability and impact on the Communities of the ZPMMT and their livelihoods

71. While experiencing drought and reduced rainfall, the ZPMMT is projected to face more frequent and intense extreme weather events like heavy rains, storms, and hurricanes. These events will cause river floods, inundations, and landslides, threatening lives, homes, roads, crops, and livestock, which are the area's primary livelihoods. Land use changes for agriculture, livestock, and urban development have worsened the vulnerability to these weather events. This has led to forest degradation, soil erosion, increased river sediment, and altered water flow in the basins.⁹⁶
72. An analysis of vulnerability indices for the NDC. These indices include vulnerability to extreme hydroclimatic events (torrential rains, prolonged droughts, and heatwaves), flood-prone areas, and geomorphological vulnerability (slope instability and landslide susceptibility due to terrain slope). The analysis considered SSP2-4.5 and SSP5-8.5 scenarios for the periods 2021-2040, 2041-2060, 2061-2080, and 2081-2100. Based on the available information in the TNC, it was found that the parishes of San Lorenzo and Cumanacoa in the Protected Zone of Sucre state exhibit a significant incidence of flood-prone areas and high geomorphological vulnerability (Level 4). Both Cumanacoa and San Lorenzo show very high vulnerability throughout the entire time series (2021-2100). Similarly, the municipalities of Simón Bolívar (Naricual) and Juan Antonio Sotillo (Pozuelos) in Anzoátegui also display very high vulnerability, while parishes in the Cedeño Municipality in Monagas show high vulnerability (see Figure 4).⁹⁷
73. Over the past three years, the states of Anzoátegui, Sucre, and Monagas have experienced river overflows resulting in landslides and significant floods in towns situated in the flatlands of the lower basins and valleys. In September 2021, heavy rainfall caused the Neverí River to swell, and this, coupled with sediment and vegetation buildup in the riverbed, led to an overflow and subsequent flooding of approximately 35 sectors in the city of Barcelona-Puerto La Cruz and the surrounding areas. 150 families were affected, and 747 displaced individuals were provided assistance in two local shelters.⁹⁸ In October 2022, the overflow of the Manzanares River in Cumaná, caused by heavy rains, affected 860 families and damaged the infrastructure of 762 homes in 11 municipalities of Sucre.⁹⁹ A month later, intense rainfall caused flash floods and landslides in the municipalities of Guanta and Juan Antonio Sotillo in Anzoátegui, leaving 7 dead, affecting 229 families, and forcing the evacuation of around 260 people, in addition to causing severe damage to 186 homes.¹⁰⁰ In July 2024, the passage of Hurricane Beryl triggered several disasters in the three states. The overflow of the Manzanares River caused flooding in the city of Cumanacoa, resulting in two deaths, five missing persons, 25,000 people affected, over 7,000 homes damaged, and another 10 severely impacted areas in Sucre.¹⁰¹ In Anzoátegui, the overflow of the Amana River cut off the population of Mundo Nuevo in the Freites municipality by collapsing a bridge and a section of the road. Additionally, it is estimated that more than 30 hectares of agricultural crops were swept

⁹⁴ Quiroz Ruiz, I., Paredes Trejo, F. and Guevara Pérez, E. 2016. Impact of droughts on the contributing basins of the large reservoirs in Venezuela. *Ágora de heterodoxias*/ ISSN: 2443-4361/ Vol 2, N° 3/ Barquisimeto, Venezuela/ Universidad Centroccidental "Lisandro Alvarado" / pp. 65 - 89.

⁹⁵ Paredes-Trejo, F., Barbosa-Alves H., Moreno-Pizani A., Farias-Ramírez A. (2020). Climate change: Does it alter precipitation and flow patterns in Venezuela? Chapter 7 (pp. 137-147). In: Rodríguez-Olarte, D. (Editor). *Rivers at Risk of Venezuela. Volume 3. Hydrobiological Resources of Venezuela Collection*. Universidad Centroccidental Lisandro Alvarado (UCLA). Barquisimeto, Lara, Venezuela.

⁹⁶ Rosales H., A. and García M., P. 2015. The degradation of watersheds. In: Forum "Energy Security: Threats to Hydroelectric Generation in Venezuela". Orinoco Group. Caracas, Venezuela. May 28, 2015. (<https://orinocodotblog.files.wordpress.com>). Accessed on 06-10-2019.

⁹⁷ Chapter 3.2.3.13: Risks and Disasters Sector. (MINEC 2024) Third National Communication on Climate Change and First Biennial Transparency Report of the Bolivarian Republic of Venezuela to the United Nations Framework Convention on Climate Change (2024).

⁹⁸ Castillo Carmona, A.; Linares, F.; Solís, C.; Homsi, K.; Monsalve, Y.; Aragort, L.; Matany, M.; Prado, E.; Espinoza, J.; Páez, A.; Polanco, J. & Orta, E. Flood event of the Neverí River, Barcelona, Anzoátegui State, 2021. Ministry of Popular Power for Ecosocialism (MINEC), Venezuela, 2021.

⁹⁹ Venezuela: Floods - Emergency Plan of Action (EPoA), DREF Operation No. MDRVE007. <https://floodlist.com/america/venezuela-floods-landslides-anzoategui-november-2022>

¹⁰¹ <https://disasterscharter.org/web/guest/activations/-/article/flood-in-venezuela-bolivarian-republic-of-activation-891->

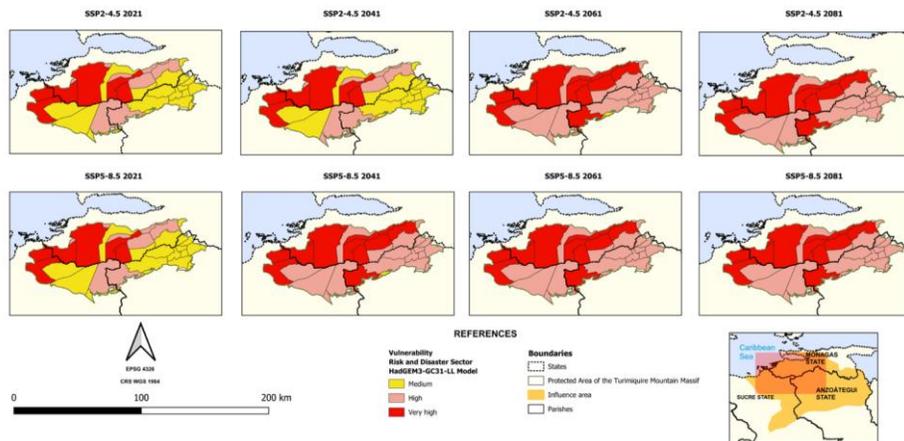
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away by the river's rise.¹⁰² Meanwhile, in Monagas, the overflow of the Guarapiche River affected the homes of 178 people from 47 families in the municipalities of Acosta, Cedeño, and Caripe.¹⁰³

Figure 4: Vulnerability for the ZPMMT Risk and Disaster Sector 2021-2081 period SSP2 -4.5 scenario and 8.5 scenario.



Source: MINEC (2024). Third National Communication on Climate Change and First Biennial Transparency Report of the Bolivarian Republic of Venezuela to the United Nations Framework Convention on Climate Change (2024).

74. These risks also **affect livelihoods and food security**. Since the year 2000, Venezuela has faced **extreme droughts**, with a tendency to prolong. An analysis of the El Niño phenomenon and its impacts published by FAO in 2021¹⁰⁴ reveals four periods in which **agriculture in Venezuela** was particularly affected by droughts related to this phenomenon:

- **The El Niño 1991/92** lasted 14 months and was classified as of moderate intensity. The conditions prior to El Niño 1991/92 were considered neutral, with Oceanic El Niño Index (ONI) values close to 0.4.
- **The El Niño 2002/03** was classified as moderate in intensity, with an ONI value of 1.3, which reached its peak in October-November-December 2002. It began in April-May-June 2002 and lasted ten months. Venezuela was severely affected.
- **The El Niño 2009/10** was classified as moderate in intensity, with an ONI value of 1.6, which reached its peak in November-December-January 2009. Venezuela experienced droughts ranging from moderate to severe.
- **The El Niño 2014**, the drought conditions observed by satellite in 2014 were very similar to those of the El Niño of 1991/92, the most severe episode in the last 30 years from an agricultural perspective.

75. These conditions primarily affect rural communities engaged in **subsistence agriculture**, generating significant economic and social impacts.¹⁰⁵ An impact is observed in the reduction of agricultural productivity, the stability of production, and consequently, the income of rural producers. A large part of Venezuelan agriculture takes place under rainfed conditions, making it especially vulnerable to climate change due to a decrease in precipitation levels. The increase in heat, the reduction in average rainfall, and the intensification of drought periods will alter planting seasons, cause soil fertility loss, create conditions favorable for pest attacks on crops, and generate additional stress for both crops and livestock. These effects will result in a decrease in productivity, an increase in food prices, a reduction in agricultural sector income, and a deterioration in the quality of life and food security of the population.¹⁰⁶

¹⁰² <https://www.eluniversal.com/venezuela/185663/reportaron-afectaciones-en-la-poblacion-mundo-nuevo-en-anzoategui>

¹⁰³ <https://eldiario.com/2024/07/04/lluvias-afectaron-al-menos-48-viviendas-en-monagas/>

¹⁰⁴ [Understanding the impact of drought caused by El Niño on the global agricultural sector](#) - FAO 2021.

¹⁰⁵ Paredes-Trejo, Olivares, Movil-Fuentes, Arévalo-Groening & Gil, 2023; Olivares, Cortez, Lobo, Parra, Rey & Rodríguez, 2017 cited in MINEC (2024). Third National Communication on Climate Change and First Biennial Transparency Report of the Bolivarian Republic of Venezuela to the United Nations Framework Convention on Climate Change (2024).

¹⁰⁶ Rodríguez, R. & Castillo, R. & Kowalsky, A.A. Climate Change Adaptation Plan for the Agricultural Sector. UNDP 2011.

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76. According to the modeling¹⁰⁷ of the **impact of climate change on agricultural and livestock** production in Venezuela conducted by Rodríguez et al. (2011)¹⁰⁸ it is projected that the national production of coffee and white maize will decrease by 4.9% (approximately 3.3 million kilograms) and 4.6% (around 84 million kilograms), respectively. However, in the states of Anzoátegui, Monagas, and Sucre, an increase in the production of coffee and maize is estimated due to optimal temperature conditions for these crops. On the other hand, a decrease in cassava production is projected in Monagas and Sucre by 7.2% and 12.9%, respectively, which implies a reduction of more than 6 million kilograms. In the state of Anzoátegui, a 21.7% drop in banana production is estimated. Likewise, it is expected that milk production will decrease throughout the country, with an estimated drop of 1.5 liters of milk/cow/day in Anzoátegui and Sucre, and 1.68 liters of milk/cow/day in Monagas.
77. **Food security:** The climate impacts on local agricultural production worsen the situation of communities that rely on subsistence farming. Indeed, extreme droughts along with the increase in minimum temperatures are more severe in rural communities with subsistence agriculture¹⁰⁹, and future climate projection scenarios estimate a greater negative impact on production. The Second National Communication to the United Nations Framework Convention on Climate Change (UNFCCC) (MINEC, 2017) states that, because of the sustained increase in temperature, areas dedicated to agricultural and livestock production face a high risk of compromising national food security. During the field consultation conducted as part of the formulation of the concept note, affected communities by flooding and drought mentioned: Loss of total or partial crops, livestock, which affects family nutrition, impacts vegetable production, and interrupts access to food, as communication routes are also interrupted
78. The food scarcity resulting from the restrictions of the UCM and climate impacts has deepened the challenge for food security, affecting the main macroeconomic indicators and particularly the most vulnerable sectors of the population, with specific effects on wage earners, family income, and the standard of living of Venezuelans.
79. In addition, **floods and droughts** also affect **human health**, through impacts on psychological health, the spread of respiratory diseases, scabies, and skin diseases, with the increase of vector-borne diseases such as dengue and leishmaniasis, the disruption of potable water supply, and the interruption of electricity supply during extreme events. These health problems are exacerbated by the collapse of local hospital resources following extreme events.
- g) Gender analysis and intersectionality**
80. The country has a literacy rate of 95.2%, and households with female heads of household represent 39%. In the states covered by the project, Anzoátegui, Monagas, and Sucre, as mentioned in the socioeconomic characterization section, the population disaggregated by sex through the masculinity index is as follows: 102, 102.7, and 103.7 men for every 100 women, respectively, showing a higher number of men than women.
81. The information collected during the consultation with institutions, communities, and women conducted in Anzoátegui, Sucre, and Monagas between September 24, 2024, and October 2, 2024, was used to understand the differentiated impact of climate change on vulnerable human groups such as: older adults, the sick, people with disabilities, those with limited mobility, producers, and especially women in terms of vulnerabilities, risks, gender roles, needs, and capacities (see more information in section H: Consultation Process).
82. Regarding the **socioeconomic situation** of women at the national level for the year 2023, the formal employment indicators for women were 56.9%, higher than that of men, which was 53%. In the informal sector, women have lower unemployment at 43.1% compared to 47% for men. In the agricultural sector, the unemployment rate is 3.5%.¹¹⁰ At the territorial level, the consultation results highlight gender inequalities or gaps, where women have less access to resources such as land, water, irrigation, technologies, infrastructure, transportation, financial means, markets, inputs, equipment, and animals.¹¹¹
83. Regarding the use of technologies, there is perceived lower access to climate information and decision-making power for women compared to men in the territorial scope of the project (rural areas, agricultural land, watersheds, protected areas, and forests of the ZPMMT).
84. Additionally, participation in training activities is perceived as a barrier due to the overload of unpaid domestic and caregiving work (household, sick people, and elderly care) and family agricultural work. They also mention having less available time due to informal income-generating activities, salaried work, and day labor that they undertake to diversify their main source of income, which is agricultural production. The results align with Latin American indicators on the proportion of time spent on unpaid domestic and caregiving work, broken down by

¹⁰⁷ The model considered variables such as a 15% decrease in precipitation and a 1.5°C increase in temperature for the year 2060.

¹⁰⁸ Rodríguez, R. & Castillo, R. & Kowalsky, A. Impacts of Climate Change on the Venezuelan Agricultural Sector. National Foundation for Biotechnology Development (NADBIO), 2011. Available [here](#).

¹⁰⁹ Olivares, B., Cortez, A., Lobo, D., Parra, R., Rey, J., & Rodríguez, M. (2017). Evaluation of agricultural vulnerability to drought weather in different locations of Venezuela. Revista de la Facultad de Agronomía, Universidad del Zulia, 34(1), 103-129.

¹¹⁰ INE (2023). Labor Force Indicators 2023.

¹¹¹ Consultation Process for the Collective Construction of the Concept Note – Field Visit September 2024, with a total of 485 stakeholders consulted.

sex for people aged 15 and over (2023) (SDG 5.4.1) published by the Economic Commission for Latin America and the Caribbean (ECLAC).

85. The main agricultural products cultivated by women include maize, bananas, plantains, mixed crops (conucos), legumes, flowers, ornamental and medicinal plants, coffee, cacao, vegetables, and small livestock for self-consumption (chickens, pigs). They also work as temporary or day laborers during the coffee harvest. Some operate forestry, fruit, and coffee nurseries and produce bioinputs on a small scale. Although agricultural production is their primary source of income, it is insufficient to meet the food needs of their households and communities, particularly during droughts and floods, leading to food insecurity. To diversify their income, women engage in other activities, such as sewing, traditional candy making, crafts, food processing and value-added production, hairdressing, tourism, domestic services, cassava production, clay crafts, and teaching.
 86. During consultations, women identified floods and overflows caused by heavy rainfall as the primary climate threats. However, they also noted that droughts have reduced the flow of rivers and streams, limiting access to water for households and irrigation, and resulting in crop losses. They further reported that floods lead to: i) disruption of transportation for people, food, goods, and supplies, as well as the marketing chain; ii) inaccessibility to health services, electricity, communication, internet, transportation, education, and other essential services; iii) loss of livelihoods (homes, crops, livestock, seeds, supplies) and an increase in human illnesses such as colds, dengue, fungal infections, diarrhea, and allergies, along with agricultural pests and diseases like budworms, bacterial infections, and viral infections, causing partial and total damage and losses in their production, weakening their livelihoods, and endangering their lives.
 87. These barriers or limitations are exacerbated by i; the increased workload from cleaning up after floods, ii; more frequent trips to search for water and food for their households, and iii; insufficient preparation and response capacity for climate emergencies. The women consulted reported feeling unprepared for climate emergencies, lacking awareness of a local early warning system, and difficulty understanding official meteorological information and publications, which often affect the electrical system and formal communication channels, preventing access to climate information to safeguard their lives. Additionally, women face difficulties attending training workshops due to household responsibilities, caregiving duties, and work schedules, factors influenced by gender roles.
 88. In this way, women are more vulnerable to climate disturbances and natural disasters, as the scarcity of resources and certain gender cultural norms hinder their adaptation.¹¹²
 89. The Ministry of Popular Power for Women and Gender Equality of Venezuela is the governing body for public policies, plans, programs, and projects promoting the participation of women in popular power and guaranteeing the exercise of their rights and gender equality. It has state and municipal representation and will be responsible for supporting the implementation within the project's scope regarding strategies to ensure women's leading participation and training, fostering policies of mainstreaming in favor of gender equality and equity.
 90. The 2024 Operational Plan of the General Directorate of Climate Change Adaptation includes the Gender and Environment Theme, which aims to promote this public policy throughout the country, to achieve greater inclusion, reduce disaster risks and climate change adaptation, access to information, equal participation, decision-making in environmental matters, and the mainstreaming of the gender approach in environmental planning. In line with the section of the 'Plan de la Patria' in its historical objective #5, Save the Planet, as well as the promotion and guarantee of substantive equality, inclusion, and respect for plurality and diversity among genders, individuals, cultures, and communities.
 91. Indigenous Peoples: In Venezuela, the TNC's climate vulnerability analysis of the IP sector considered terrain slope, geomorphological vulnerability, flood-prone areas, and extreme hydroclimatic events to identify the areas and communities most susceptible to climate change impacts within the project area. The results indicated that in Anzoátegui, parishes with the Cumanagoto and Kariña ethnic groups exhibit high geomorphological vulnerability, reflecting significant erosion and soil degradation. In Monagas, within Caripe, the Warao, Kariña, and Chaima ethnic groups' communities also demonstrate high vulnerability. The IP in this area are among the most vulnerable due to their close relationship with nature, dependence on natural resources for subsistence, and traditional knowledge systems, factors that make them particularly susceptible to these impacts.¹¹³
- h) Non-climatic drivers that exacerbate climate risks**
92. Watersheds, and particularly local rivers, have been observed to share significant issues, including extensive deforestation, soil erosion caused by inadequate agricultural practices, and water quality degradation due to

¹¹² [Gender equality in agri-food systems could increase global GDP by 1 trillion dollars and end food insecurity for 45 million people](#). New FAO report (2023). Consulted on January 27, 2025.

¹¹³ Chapter 3.2.3.12: Indigenous Peoples Sector. MINEC (2024). Third National Communication on Climate Change and First Biennial Transparency Report of the Bolivarian Republic of Venezuela to the United Nations Framework Convention on Climate Change (2024).

agricultural pollutants. These issues result in biodiversity loss among marine and terrestrial species, many of which are endemic. The most affected rivers are the Neverí, Manzanares, and Guarapiche.¹¹⁴

93. **Deforestation and unsustainable agricultural practices:** Traditional agricultural practices in the conuco often include burning and logging. During consultations, deforestation was identified in the area as a result of the expanding agricultural frontier and the shift from traditional crops (coffee, oranges) to vegetables, pineapples, and passion fruit, which require more intensive logging. This deforestation for cultivation also leads to the displacement of native fauna due to the loss of their natural habitats.
94. The expansion of the agricultural frontier has significantly impacted forests, reducing and degrading forest cover through deforestation, recurrent burning, and the removal of underbrush for crop establishment. In lowland and midland areas, these forests have largely been replaced by anthropogenic savannas and scrublands. In higher elevations, the forests have been altered for cultivation. Pineapple cultivation has rapidly expanded, characterized by complete vegetation removal, exposed bare soil, and intensive use of agrochemicals.¹¹⁵ These deforestation activities and poor agricultural practices increase sedimentation in riverbeds, siltation and eutrophication of reservoirs, and accelerate soil erosion in the headwaters and higher watershed areas.¹¹⁶ The transport of sediments into water reservoirs and river courses contributes to increased flooding during rainy season.
95. **Forest Fires:** The states of Sucre, Monagas, and Anzoátegui are classified as high risk due to the threat of forest fires.¹¹⁷ This means that, in any given year, there is a more than 50% probability that weather conditions will be favorable for severe forest fires, which cause human losses and material damage. This practice is closely related to deforestation, as fires spread more quickly due to the deforestation and degradation of forests associated with agricultural expansion, which raises temperatures and dries out vegetation, thus increasing the amount of available fuel. The conditions of degraded ecosystems, along with climate projections, suggest that the ZPMMT will experience an increased frequency of conditions favorable for fires, driven by rising temperatures and precipitation variability. In areas where the fire risk is already significant, such as Sucre, Monagas, and Anzoátegui, it is expected that the fire season will lengthen, with more days of dry weather suitable for fire spread due to longer periods without rainfall. Climate projections also indicate that the intensity of fires could increase in this region. According to records from the 'Forest Fire Registry (REINFO)' in Venezuela, from 2015 to April 2022, a total of **396,743 hectares were affected by 9,931 forest fires** during the dry season, linked to the National System of Parks and Natural Monuments of Venezuela (INPARQUES, 2022).¹¹⁸ The impacts of the fires include the degradation of fragile ecosystems and the loss of biodiversity, affecting soil quality and generating large amounts of smoke that deteriorate air quality, impacting the health of local communities. Additionally, these fires interfere with hydrological cycles, negatively impacting the water bodies in the region, which are crucial for the water supply of nearby communities.
96. **Demographic expansion and increased demand for resources:** Additionally, a reduction in the flow of surface waters is observed, exacerbated by the growing demand and intensive use of these resources. This is the case for the Caribbean watersheds (which include the Neverí and Manzanares rivers, among others), some of the Orinoco-Atlantic watershed (Guarapiche and others). On the other hand, Rodríguez-Betancourt (2000)¹¹⁹ and González-Aguirre (2000)¹²⁰ have pointed out that the greatest demand for water in Venezuela comes from the agricultural sector, where proper management of water resources is crucial for the development of irrigation. However, the need to strengthen integrated watershed management and the pollution of water sources could be generating a deficit in water availability for irrigation, directly affecting agricultural production. Demographic expansion is also considered a triggering factor for the increased demand for resources and pollution.
97. **Water Pollution:** Water quality in the watersheds of the ZPMMT is declining due to agricultural pollutants¹²¹ from the excessive use of pesticides and fertilizers. Consultations confirmed that the improper management of animal waste and the use of agrochemicals are significant issues in the three visited states. Additionally, fishing boats serve, which serve as a means of transportation in the area, have also become a source of pollution. The watershed is also impacted from the expansion of **landfills** and the establishment of **industries**— fishing, sand extraction, sugar mills, among others —, leading to increased pollution with **solid and liquid** waste and

¹¹⁴ Rodríguez-Olarte, D. (Editor). 2020. Rivers at Risk of Venezuela. Volume 3. Hydrobiological Resources Collection of Venezuela. Universidad Centroccidental Lisandro Alvarado (UCLA). Barquisimeto, Lara, Venezuela.

¹¹⁵ Oliveira-Miranda M., Rodríguez, J., Huber O., Hernandez-Montilla M. (2010). Risks of the Elimination of Terrestrial Ecosystems in Venezuela (2010).

¹¹⁶ Rodríguez-Olarte, D. (Editor). 2020. Rivers at Risk of Venezuela. Volume 3. Hydrobiological Resources Collection of Venezuela. Universidad Centroccidental Lisandro Alvarado (UCLA). Barquisimeto, Lara, Venezuela. Rivers at Risk of Venezuela. Volume 3 Universidad Centroccidental Lisandro Alvarado, Barquisimeto, Venezuela.

¹¹⁷ [Think Hazard](#). The Global Facility for Disaster Reduction and Recovery (GFDRR), accessed October 11, 2024.

¹¹⁸ Lorca J. y Echenique Z. (2022). [Water resources of Venezuela](#). MINEC and Fundambiente.

¹¹⁹ Rodríguez-Betancourt, R., and González-Aguirre, J. (2000). Water Resources Management in Venezuela. IWMI. Latin American Series No. 18. International Water Management Institute. Mexico City.

¹²⁰ González Landazábal, A. B. (2000). National Report on Water Management in Venezuela. GWP SAMTAC. Buenos Aires, Argentina.

¹²¹ Fermin, I. (2015). Environmental Evaluation of the Manzanares River and its Interaction with the Coastal Zone of Cumaná, Sucre State, Venezuela. Special Research Project. Doctoral Program in Marine Sciences. Oceanographic Institute of Venezuela. University of Oriente. Venezuela.

leachate.¹²² ¹²³ There is evidence of degradation in the quality of sediments in some watersheds due to enrichment and extremely high contamination by **metals**.¹²⁴ This has deteriorated both the soil and the river waters, causing eutrophication and high concentrations of microorganisms that exceed regulatory standards¹²⁵.

i) Barriers to adaptation

98. The main barriers identified to increase adaptive capacity and address the impacts of climate change were identified during the consultation process and document review and include:
99. **Limited knowledge and systematized record of impacts from climate change:** During the consultation process, the limited information and systematized record of impacts and damages associated with climate events such as floods, droughts, and landslides were identified, specifically regarding losses and damages to agricultural production, industry, infrastructure, access roads, and ecosystems. The recording of information on impacts is key for decision-making and proper evidence-based planning. The different institutional actors consulted¹²⁶ identified the need to strengthen the use of technologies and information systems that allow for better knowledge of the risks and impacts associated with these climate phenomena, which in turn will enable better resource planning and policies that can help manage these impacts more effectively
100. **Limited institutional capacities and resources to implement the best adaptation measures:** Among the main capacities that need to be strengthened for the implementation of adaptation measures, both knowledge and training issues were mentioned, as well as the need for resources, supplies, and materials to implement adaptation practices. Through the consultation process, the following needs were identified: strengthen telecommunications, risk mapping, information systems, technology, restore the laboratory for water and soil analysis, strengthen capacities in reforestation techniques, seed bank, training in meteorological readings and observations, and strengthening training in pluviometric topics. The importance of strengthening capacities related to the integration of transversal topics such as gender, intersectionality, and IP in the analysis of climate change impacts differentiated by sex and other vulnerable groups was highlighted, as well as issues of cultural awareness and appropriate adaptation measures considering these differentiated impacts. Among the capacities to be reinforced, the strengthening interinstitutional coordination for the coordinated action of various institutions in the territory and the logistics to reach hard-to-access areas was also highlighted.
101. **Limited capacities of local communities and resources to implement adequate adaptation practices:** In the ZPMMT, more than 170,000 people (50% women) are settled. Local communities are unaware that they are located in a protected area and do not fully understand the importance of conserving and protecting ecosystems for water resource conservation, ecosystem services, and disaster risk reduction, including protection against flooding and landslides. There is limited awareness of the expected impacts and risks of climate change on their livelihoods, and appropriate adaptation measures, despite already experiencing the effects of flooding, drought, and other climate-related events. During consultations, the high levels of poverty in the area and the heavy dependence on agriculture for livelihoods were emphasized. In this context, the need to support community-based early warning systems has been identified as a key measure to save lives and mitigate the impacts of disasters. Additionally, promoting sustainable practices for water resource conservation, ecosystem protection, and alternative livelihoods is crucial to help agricultural activities adapt to the impacts of climate change.¹²⁷
102. **Limited monitoring and recording of hydro-climatic variables:** During the consultations, a major barrier identified was the lack of information and hydro-climatic records that allow for proper monitoring of climatological variables and the behavior of rivers and watersheds. There is limited coverage of meteorological stations in the ZPMMT. Consultations with experts and institutional actors highlighted the importance of strengthening hydro-climatic information, as well as enhancing the capacity to read and understand meteorological and pluviometric observations, as well as climate information for decision-making and proper planning.
103. **Limited dissemination and systematization of knowledge about good practices and appropriate adaptation measures in the area.** There are some experiences in the national territory related to sustainable forest management and community organization for the protection and conservation of watersheds, but very little is known about them. In the case of Turimiquire, there is limited information about projects and practices that have worked well to address the identified climate risks. The characteristics of mountain ecosystems and the particularity of being a protected area, while having a large population living within the territory, combined

¹²² Gil Marín, J. A., Beloso De Herrera, G., Vizcaino González, C., Maza, I. J., Sánchez Cuevas, M. C., Bolívar, C. E., & Martínez, P. D. (2013). Evaluation of the microbiological quality and levels of nitrates and nitrites in the waters of the Guarapiche River, Monagas State, Venezuela. *UDO Agrícola Scientific Journal*.

¹²³ *Rivers at Risk in Venezuela*, Volume 2. Universidad Centroccidental Lisandro Alvarado, Barquisimeto, Venezuela, 2020, consulted on August 21, 2024.

¹²⁴ Márquez, A., I. Fermin, W. Senior, R. de La Cruz, A. Benítez, A. Díaz, E. García, E. Hernández, M. González, D. Hernández, M. Ocque, J. Acosta. (Year). *Manzanares, Venezuela*. p. 117-142. In: *Botello A.V., S. Villanueva, and J. Gutiérrez (coordinators). Mexican Coasts and Seas: Pollution, Impacts, Vulnerability, and Climate Change*. UNAM, UAC. 652 p. ISBN 978-607-30-2331-3. doi:10.26359/epomex.0419.

¹²⁵ Gil-Marín, J. A., Vizcaino, C., Montaña-Mata, N. J. (2018). Evaluation of surface water quality using the Water Quality Index (ICA). Case study: Guarapiche River Basin, Monagas, Venezuela. *Scientific Annals*.

¹²⁶ Stakeholder Consultation Report - 485 participants consulted.

¹²⁷ Consultation Process for the Collective Construction of the Concept Note – Field Visit September 2024.

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with the risks it is exposed to, make Turimiquire an important case for understanding the best adaptation practices in this context, including the difficulties that may arise in implementing those measures, the good practices, and success stories that managed to promote the adoption of appropriate measures. The availability of systematizations that record the process and key factors that contribute to the success of adopting good practices, as well as their dissemination and exchange across the territory, helps address this barrier and allows for the dissemination, replication, and scaling up of the best adaptation practices in similar contexts.

104. **Limited funding to implement adaptation measures:** Venezuela, like other developing countries, has low greenhouse gas emissions but is highly vulnerable to climate change. It requires adequate funding to implement effective adaptation measures and enhance resilience. Economic constraints and limited access to international credit restrict available funding, slowing the design and implementation of climate adaptation strategies—despite the already visible impacts. This resource shortage hampers investments in resilient infrastructure and disaster risk reduction at both governmental and community levels. Strengthening external financial support and developing sustainable financing mechanisms are crucial to improving Venezuela’s adaptive capacity and safeguarding its socio-economic development against escalating climate threat

Project/Programme Objectives

105. The project’s overall objective is to reduce the vulnerability of degraded ecosystems and strengthen the resilience of vulnerable communities and their livelihoods in the Protected Area of the Turimiquire Mountain Massif, Bolivarian Republic of Venezuela, against the risks of extreme rainfall, floods, landslides, droughts, and increasing climate variability (see the theory of change in Annex 1).
106. The specific objectives of the Project include:
107. **Enhance knowledge** of climate risks due to the climate crisis in the ZPMMT and strengthen the capacity of local communities and institutions to plan appropriate adaptation measures (Component 1).
108. **Improve data collection, monitoring, and access** to climate information while enhancing preparedness and response capacities to hydro-meteorological extreme events in vulnerable areas of the ZPMMT (Component 2).
109. **Implement ecosystem restoration and conservation measures** to enhance resilience to climate change and safeguard the ecosystem services that sustain local communities (Component 3).
110. **Support vulnerable communities** in adopting resilient agro-productive practices and diversifying their livelihoods (Component 4).

Project/Programme Components and Financing

Table 2: Project/Programme components and financing

Project/Programme Components	Expected Concrete Outputs	Expected Outcomes	Amount (US\$)
Component 1: Risk knowledge and capacity building for climate risk planning and monitoring in the ZPMMT.	1.1 Knowledge on climate risk and adaptation actions generated and disseminated.	Outcome 1: Vulnerable communities and institutional actors of the ZPMMT are aware of their risks in the face of the climate crisis and plan appropriate measures to manage and reduce them.	800,000
	1.2 Strengthened knowledge management.		200,000
Subtotal Component 1			1,000,000
Component 2: Improvement of hydrometeorological monitoring and community strengthening of disaster risk management in the ZPMMT.	2.1 Climate impact damage registration and monitoring system developed.	Outcome 2: Improved preparedness and rapid response capacity to extreme hydro-meteorological events in vulnerable communities of the ZPMMT.	320,000
	2.2 Timely and usable climate information at the local level.		200,000
	2.3 Community early warning systems to extreme hydro-meteorological events		1,300,00
Subtotal Component 2			1,820,000
Component 3: Restoration and conservation of ecosystems to support local livelihoods.	3.1 Key ecosystem areas for integrated water management and sustaining local livelihoods reforested and conserved.	Outcome 3: Degraded watersheds with increased moisture retention and forest cover to withstand the impacts of extreme events and variability and support local livelihoods.	2,000,000
Subtotal Component 3			2,000,000

Component 4: Promotion of resilient agro-productive practices	4.1 Resilient agro-productive practices and alternative livelihoods promoted.	Outcome 4: Livelihoods of vulnerable communities in the ZPMMT diversified to withstand the impacts of extreme events and climate variability.	3,522,000
Subtotal Component 4			3,522,000
Total project components / activities cost			8,342,000
6. Project/Programme Execution cost			875,000
7. Total Project/Programme cost			9,217,000
8. Project/Programme Cycle Management Fee charged by the Implementing Entity (if applicable)			783,000
Amount of Financing Requested			10,000,000

Projected Calendar

Table 3: Projected calendar

Milestones	Expected Dates
Start of Project/Programme Implementation	2026
Mid-term Review (if planned)	2028
Project/Programme Closing	2030
Terminal Evaluation	2030

PART II: PROJECT / PROGRAMME JUSTIFICATION

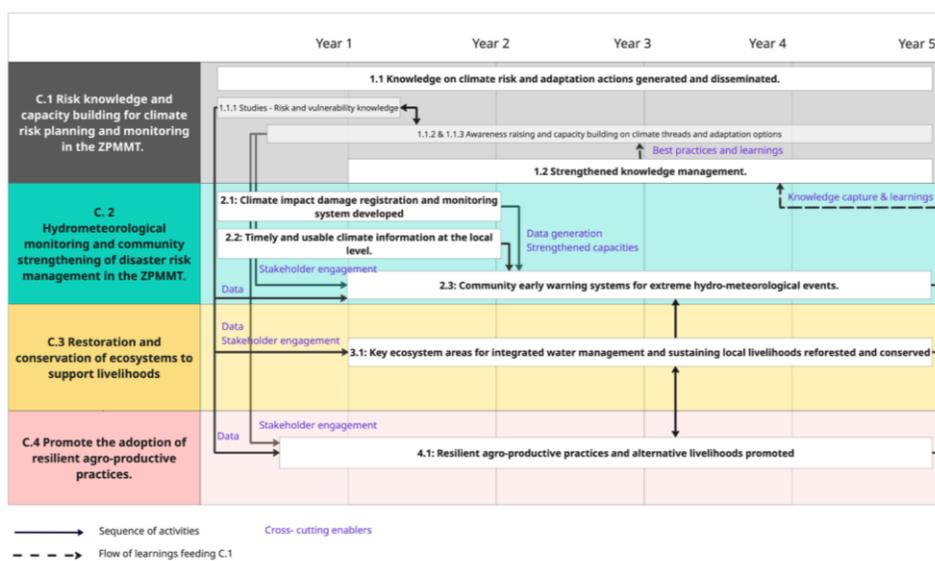
A. Describe the project/programme components, particularly focusing on the concrete adaptation activities of the project, and how these activities contribute to climate resilience. For the case of a programme, show how the combination of individual projects will contribute to the overall increase in resilience.

111. This project is aligned with the objectives of the Strategic Results Framework of the AF, as its main objective is to reduce the vulnerability of ecosystems and increase the adaptive capacity of vulnerable communities to climate impacts and climate variability. The project will directly reach 5,000 household members in the ZPMMT community (48.5% of whom are women), strengthening their capacities with direct adaptation and livelihood diversification actions, as well as community early warning systems; and 200 local and national government actors with capacity building, promoting the restoration and conservation of a total of 1,350 hectares. Indirectly, the project benefits the other members of the households receiving direct support (approximately 15,000 people) due to the multiplier effect in the family. Furthermore, the conservation and integrated management of watersheds are expected to generate benefits in ecosystem services and reach all communities in the ZPMMT, with 172,235 inhabitants (48.5% women). Additionally, the ecosystem services of the watershed reach a total of 3,763,091 (49.7% women) inhabitants of the states of Anzoátegui, Monagas, Sucre, and Nueva Esparta, since the ZPMMT provides water supply and supports the livelihoods of these 3 States.
112. The project objectives and outcomes align with the following results of the AF Strategic Results framework:
- **Outcome 1:** Vulnerable communities and institutional actors of the ZPMMT are aware of their risks in the face of the climate crisis and plan appropriate measures to manage and reduce them, aligns to **outcome 3** of the AF: **Strengthened awareness and ownership of adaptation and climate risk reduction processes at local level**
 - **Outcome 2:** Improved preparedness and rapid response capacity to extreme hydro-meteorological events in vulnerable communities of the ZPMMT aligns to **outcome 1** of the AF: **Reduced exposure to climate related hazards and threats**
 - **Outcome 3:** Degraded watersheds with increased moisture retention and forest cover to withstand the impacts of extreme events and variability and support local livelihoods aligns to **outcome 5** of the AF: **Increased ecosystem resilience in response to climate change and variability-induced stress**
 - **Outcome 4:** Livelihoods of vulnerable communities in the ZPMMT diversified to withstand the impacts of extreme events and climate variability aligns to **outcome 6** of the AF: **Diversified and strengthened livelihoods and sources of income for vulnerable people in targeted areas**

113. The measures proposed in this project are based on an analysis and the review of secondary documentation of the prioritized site, alignment with national priorities and strategies, and the needs expressed by national and local governments during the consultation process. They also reflect insights gathered from a field mission with representatives from non-governmental organizations, academia, institutional actors, and community groups consulted during the formulation process. During the full proposal development phase, an additional field mission will be conducted to expand community consultation, gather community perspectives, and carry out the Free, Prior, and Informed Consultation of local communities and IP present in the project area.

114. **Component 1** lays the foundation for the entire project by supporting data generation, risk knowledge, and stakeholder engagement. This foundational work will inform and guide the implementation of Components 2, 3, and 4. It also includes a learning loop to capture and disseminate best practices and lessons learned from across the project, reinforcing awareness-raising and capacity-building efforts throughout the implementation period. Building on Component 1, **Component 2** strengthens preparedness by enhancing access to hydro-meteorological data, impact monitoring, and the installation of Community-based Early Warning Systems (CEWS). The knowledge and institutional capacity developed under Component 1 will directly support the design and uptake of CEWS, ensuring their relevance and effectiveness in high-risk areas. **Component 3** focuses on ecosystem restoration and conservation contributing to reduce land degradation. These nature-based solutions will directly support the effectiveness of early warning systems (Component 2) and support livelihoods of communities. **Component 4** promotes climate-resilient agro-productive practices and alternative livelihoods, helping smallholder farmers adapt to the impacts of climate variability (extreme rainfall, droughts, and landslides). This component also contributes to reducing pressure on degraded ecosystems, reinforcing the goals of Component 3. (See **Figure 5**).

Figure 5: Sequencing of components and related outputs and activities.



115. The Project incorporates **innovations in technology and community participation** that have been developed to improve the project's outcomes and **sustainability**. Key technological elements include the installation of technologies such as drones, remote sensors, and satellite technology to monitor the ZPMMT and provide a solution to the access and logistics challenges posed by the mountainous geographic terrain and the monitoring of hard-to-reach areas in the ZPMMT. Additionally, **community participatory monitoring** has been incorporated into all the adaptation actions that will be part of the project. Communities are involved in community risk mapping, participatory planning of the best adaptation measures considering the ZPMMT use regulations, participation in reforestation and restoration actions, as well as in community monitoring of the implemented measures. Community involvement will be approached through awareness-raising and citizen science, informed by the results of studies and climate change projections at the local level, which will enable

planning and decision-making aligned with the climate risks that are already being observed, thus increasing the community's adaptive capacity (Activity 1.2.2). To promote citizen participation, awareness-raising will be carried out through various community spaces (Activity 1.2.2). The use of technologies such as drones, remote sensors, and satellite imagery will significantly improve the monitoring of deforestation, river levels in inaccessible sites, agricultural production, and other environmental threats, increasing the effectiveness of conservation efforts and livelihood resilience (Activities 3.1.1, 3.1.2, and Component 4 activities). Collectively, these innovative technologies will empower communities, enhance environmental monitoring, and support informed decision-making, resulting in improved adaptation capacities in the face of identified impacts.

116. In this Concept Note stage, there are activities that have been identified as **Unidentified Subproject (USP)**: More details are provided for each activity (see Activity 2.3.2 and 3.1.1) and in section II.K.

Component 1: Risk knowledge and capacity building for climate risk planning and monitoring in the ZPMMT.

Outcome 1: Vulnerable communities and institutional actors of the ZPMMT are aware of their risks in the face of the climate crisis and plan appropriate measures to manage and reduce them.

117. The project will generate studies and analyses to enhance understanding of climate risks and the conservation status of the ZPMMT. This will provide key inputs for updating the land use plan, regulatory frameworks, and watershed management and conservation plans, incorporating climate change considerations. Additionally, it supports awareness-raising and participatory planning of adaptation measures at both the community and institutional levels. Strengthened knowledge management -through experience exchanges and systematization- will support learning, replication, and scaling of effective adaptation actions. The increased availability and use of climate risk knowledge combined with the participatory planning is expected to strengthen the stakeholders' adaptive capacities. A key assumption is that knowledge generated by the Project will be effectively used by authorities and local communities to guide planning and reduce ecosystem vulnerability through activities in Components 2, 3 and 4.

Output 1.1: Knowledge on climate risk and adaptation actions generated and disseminated.

118. This output addresses the lack of up-to-date planning tools and limited climate risk knowledge in the ZPMMT, where the current land use plan dates to 1989. Project activities will fill information gaps by strengthening socio-environmental, hydrological, and climate risk data at the local level in the ZPMMT to plan evidence-based adaptation actions that allow communities to adapt to the risks of drought, extreme rainfall, landslide and ecosystem degradation.

119. Gender and inclusion approach: The Project will consider gender-differentiated impacts and intersectionality, as well as including the perspectives of women and IP regarding their knowledge of risks and the measures they are already implementing. Additionally, the training will include a gender perspective, ensuring that women and other vulnerable groups are considered in the planning of measures and in the workshops. Specific modules will be designed to address the differentiated needs and roles by gender in risk management and available resources. Additionally, equal participation of women, IPs and men will be ensured in all training activities, with care spaces for children to promote their involvement as well as cultural aspects than promote IPs participation.

Activity 1.1.1: Develop analysis and studies of climate risks in the ZPMMT and the vulnerability of ecosystems, communities, and water resources to inform land-use planning and management plans with considerations of future scenarios.

120. Through this activity, the project will generate information and greater knowledge at the local level about the conservation status of the ZPMMT, the communities, watersheds, and natural resources, land use mapping, as well as future climate risk scenarios and expected climate impacts. This will include the use of various sources of information such as satellite data, geographical data, hydrological studies, climate impact modeling, specialized surveys, and community consultations to assess: the conservation status of watersheds and natural resources, land use mapping, and define the most appropriate uses considering the hazards of drought, extreme rainfall, ecosystem degradation and landslide. The conclusions of the surveys and studies conducted will be shared at the national, state, and municipal levels with government institutions and communities.

121. Additionally, the project will implement methodologies such as community risk mapping, seasonal livelihood consultations, and participatory community planning socializing the information on the identified hazards: droughts, extreme rainfall, ecosystem degradation and landslide to ensure appropriate planning with the community. MINEC is already implementing community risk mapping as public policy while WFP has experience implementing the Integrated Context Analysis (ICA) and the Seasonal Livelihoods Consultation (CEMV).

122. Deliverables: This information will be used to draft an updated PORU with climate change considerations for the ZPMMT, conservation and management plans for at least 3 watersheds, and local level community plans in at least 50 communities. These regulations will be aligned with the watershed management plans and appropriate

land uses for the ZPMMT. The data generated will be a key input for informing the adaptation measures to be implemented through Components 2, 3, and 4 of this Project.

Activity 1.1.2: Community awareness and training on climate risks in the face of the climate crisis and appropriate adaptation measures for the ZPMMT.

123. Awareness-raising actions will be carried out at the community level on adaptation measures for disaster risk reduction and adaptation to the hazards of the ZPMMT which include drought, extreme rainfall, flooding, landslide, ecosystem degradation and fires. Knowledge and lessons learned captured in the previous activity as well as the implementation of C.2, 3 and 4 will also feed into this awareness and training while the stakeholder engagement process achieved with this activity will also contribute to the implementation of the rest of the Components. Among the activities to be included for community awareness are: 1) Formation and training of environmental conservation brigades in schools and community-based groups, and conservation committees (both school and community-based); 2) Community awareness campaigns (house-to-house visits); 3) Graphic design and reproduction of printed and audiovisual educational materials with didactic and informative content promoting the protection of natural resources in the ZPMMT and sustainable development, aimed at students, teachers, environmental spokespersons, and the general public; 4) Work with schools: produce guides, magazines, and books to strengthen children's education, ecological games such as puzzles, to identify the territory, vulnerabilities, and threats related to climate change, children's stories, and booklet-type guides that children can work on, including maps; 5) Design, organization, and implementation of workshops, courses, environmental experience meetings, and film forums for the training of climate promoters and community-based environmental conservation brigades; 6) Chat forums via phone to establish community networks and socialize information on adaptation measures, good practices, specialized conferences with the scientific and institutional community; signage and dissemination of ecological messages in strategically important sites. 7) Community meetings and strengthening of the Climate Change Brigades, among other activities.

124. **Beneficiaries:** This activity is expected to benefit 1,920 people with awareness-raising workshops, additionally 1,500 school children, and at least 100 staff members of community organizations.

Activity 1.1.3: Awareness and training for national, regional and local government technicians on climate change adaptation measures for the ZPMMT.

125. To increase awareness and knowledge on the adaptation options to address the hazards of droughts, extreme rainfall -flooding and landslides-, fires and ecosystem degradation, the project will conduct awareness-raising and training sessions for technicians from the national government and its territorial entities, as well as for local governments in Anzoátegui, Monagas, and Sucre, and the Municipalities. It will include information on the expected climate change risks for the ZPMMT and the associated impacts for the region. The project will also focus on training on the best adaptation measures and the importance of the protected area for ecosystem services that contribute to reduce the climate risks. Meetings will be promoted to foster practical skills, exchange, and interdisciplinary knowledge, facilitating the integration of adaptation into various policies, plans, programs, and projects. Additionally, training will be provided on the use of climate information, mainstreaming the gender approach in adaptation actions, ecosystem-based and community-based adaptation, integrated water resources management approach, and awareness-raising for intercultural work with IP.

126. Efforts will also be made to strengthen the environmental and social safeguard system in the states to incorporate the results of the studies developed in Activity 1.1.1 and update their management plans, contributing to build capacities for the longer-term sustainability of actions.

127. Additionally, efforts will be made to strengthen the capacities of community organizations such as fire brigades, Water Technical Tables, and Community Water Councils (CCA) to enhance their abilities in planning and understanding appropriate adaptation measures, considering the impacts of climate change in the ZPMMT.

128. **Beneficiaries:** It is expected to benefit 200 people, including technicians from the national and local governments and community organizations.

Output 1.2: Strengthened knowledge management.

129. The climate impacts affecting the ZPMMT and the challenges related to managing and addressing these impacts are not unique to the region. There are areas with similar issues and climate risks. In this regard, systematizing the experiences from the project process, documenting best practices, and analyzing adaptation measures that work and the mechanisms that promote the adoption of these best practices among communities are key to achieving the scaling and replication of actions, fostering a virtuous circle of learning. Through this output, the systematization and reflection on this process will be promoted, generating information and learnings among institutional actors, communities, and fostering the dissemination of lessons learned. The assumption is that by promoting the exchange of knowledge, stakeholders will improve their understanding and involvement, learn adaptation practices, implement them, and replicate the learnings in similar contexts.

130. Gender and Inclusion Approach: All materials will be produced with inclusive language, images, and infographics without gender bias, and the videos will represent women and men, young and adults equally. The workshops and learning exchanges will include specific sessions on gender and inclusion, with equitable representation of participants and speakers.
- Activity 1.2.1: Promote the systematization of lessons learned and their dissemination.**
131. This activity will support the creation of a compendium of project experiences through the production of at least five experience systematizations, which will include both the process and the results of adaptation initiatives in the ZPMMT. These studies will be structured to highlight successful practices and lessons learned, serving as a guide for other similar projects. Materials for dissemination, such as infographics, videos, and educational graphics, will also be produced and shared on social media and at regional events, ensuring that the learning reaches decision-makers and the project communities (through the awareness actions 1.2.2) and other vulnerable areas with similar risks and climate impacts.
132. Beneficiaries: Presentation events and discussion workshops will be planned for at least 150 participants/year (50% women) from local communities and organizations.
- Activity 1.2.2 Workshops and exchange of experiences with other regions with similar climate risks and adaptation experiences.**
133. With the aim of strengthening peer-to-peer learning, the project will organize learning workshops and exchange visits within the ZPMMT and to other regions that are implementing similar climate conservation and adaptation projects, such as watershed restoration, EWS and sustainable agriculture. This exchange will include participants from technical institutions as well as community members, who will be able to observe and learn directly about the impact and actions used in other similar contexts, which will allow them to replicate practices adapted to their own reality.
134. Beneficiaries: At least 120 people (50% women) are expected to participate in exchange workshops, and each visit will be documented in different formats to share in the ZPMMT. Additionally annual participatory community meetings within the intervention site will be conducted.
- Component 2: Hydrometeorological monitoring and community strengthening of disaster risk management in the ZPMMT.**
- Outcome 2: Improved preparedness and rapid response capacity to extreme hydro-meteorological events in vulnerable communities of the ZPMMT.**
135. The project will improve the recording of impacts and losses from floods, landslides, droughts, and wildfires, and will support the acquisition and installation of hydrometeorological stations and river monitoring instruments to strengthen the climate information and monitoring network. Additionally, it will support the installation of community early warning systems (CEWS) leveraging community-based meteorological stations, improved risk knowledge, strengthened communication channels, and the enhancement protection of exposed assets to improve preparedness and response to droughts, floods and landslides. Furthermore, the project will work with local communities and institutions to strengthen their capacity for interpreting and using climate information, ensuring timely utilization by local communities and governmental entities. These outputs are expected to contribute to greater preparedness and rapid response to extreme hydrometeorological events in vulnerable communities.
136. A key assumption is that if key territorial actors have access to reliable hydrometeorological monitoring information, understand how to use it, and have effective communication systems and contingency plans, along with reinforced capacities and assets, they will be better prepared to respond to drought, flooding and landslide impacts. It is assumed that community and institutional actors will maintain the stations recognizing the importance of the information generated.
- Output 2.1: Climate impact damage registration and monitoring system developed.**
137. According to climate projections, climate variability will increase in the ZPMMT, as well as the frequency and intensity of extreme events such as droughts, floods, landslides, and wildfires. However, in the ZPMMT, there is no systematic information or records of the damages and losses caused by these impacts that would allow for better decision-making and planning to address these threats. This product aims to improve knowledge and information related to these impacts to support evidence-based decision-making for planning and implementing appropriate adaptation measures.
138. Gender and Inclusion Approach: The system will have gender-disaggregated information, age groups, IP to better understand the impact by sex and identify differentiated impacts for vulnerable groups.

Activity 2.1.1: Support the development of a registration and monitoring system for the impact on ecosystems, infrastructure, and livelihoods of the population due to flooding, landslides, fires, and droughts.

139. Through the project, a platform will be designed and local institutions will be supported to establish a system that integrates satellite and geographic information, and registers the impacts of fire, flooding, drought, and landslide-related damages on the livelihoods of the population, ecosystems, infrastructure, biodiversity, and access to food. The system will allow technicians in the field to monitor and record the damages and losses caused by these climatic phenomena to better understand the impact of climate events in the ZPMMT in the states of Anzoátegui, Sucre, and Monagas. Additionally, this activity will work on creating coordination spaces between the various institutions operating in the ZPMMT and local communities to integrate them into the monitoring and impact recording system through applications that can be used on mobile phones with or without internet access. Community monitoring of the adaptation measures to be implemented with Components 2, 3, and 4 will be key to feeding back into this system and ensuring that both communities and institutional actors can better understand the impacts associated with extreme events.

Activity 2.1.2: Training for key personnel of government institutions and social actors on the registration and use of information.

140. As part of the registration system design, impact areas and key indicators will be identified, including GIS data, economic and quantitative metrics (e.g., population affected, hectares impacted, agricultural production, damaged houses, social infrastructure, and access roads impacted by climate hazards). The methods and individuals responsible for data collection and analysis will also be determined. Training sessions will ensure users understand registration definitions, data collection methods, and the processing and analysis for each data point. To facilitate this, multiple training sessions will be held for responsible personnel in each state, and key institutions in Anzoátegui, Monagas, and Sucre will receive necessary equipment for data registration and processing. Additionally, a user manual will be developed, complemented by practical training sessions on system operation for all involved actors across the three states.

Output 2.2: Timely and usable climate information at the local level.

141. Despite increased climate variability and changes in temperature and precipitation in the ZPMMT, the meteorological and hydrological station network remains insufficient for proper monitoring, as noted by key stakeholders and experts during the consultation process. Additionally, local actors reported lacking the capacity to interpret and use hydro-climatic data for decision-making. Through this project, efforts will focus on strengthening the hydro-meteorological monitoring network in the ZPMMT and building capacities for the communication and interpretation of hydro-climatic information. This will support informed decision-making and enable timely adaptation to recorded changes and extreme events. During the FP stage, the feasibility of implementing anticipatory actions for various hazards and risks in the ZPMMT will also be assessed.

142. Gender and Inclusion Approach: Strong participation of women and IPs will be promoted by considering appropriate schedules to facilitate their involvement in the training sessions. Suitable communication products will be identified for use at the institutional and community levels, with inclusive language and recommendations for the community, considering cultural needs for IPs.

Activity 2.2.1: Acquisition and installation of certified hydrometeorological stations in Monagas, Anzoátegui, and Sucre.

143. This activity is related to Activity 1.2.1, which will generate greater knowledge of climate risks in the ZPMMT by conducting community risk mapping in the ZPMMT communities.

144. Deliverables: The project will include the acquisition of 3 complete hydro-meteorological stations to be installed in the upper watershed area, along with river level monitoring instruments to obtain better records and information on climatic and hydrological variables in the states of Monagas, Anzoátegui, and Sucre.

145. This will allow for the recording, observation, measurement, monitoring, and interpretation of meteorological data through accredited stations, while also strengthening the scientific and community-based method (Activity 2.3.1). During the FP stage, progress will be made in identifying suitable locations for the stations.

Activity 2.2.2: Training for technicians and local institutional actors on the interpretation and use of climate information and dissemination in appropriate formats.

146. The project will support the training of local technicians to learn how to use climate information and measurement instruments, as well as their interpretation. Additionally, it will work on adapting the content to communication formats suitable for the needs of the stakeholders, promoting clear language and providing information that is appropriate for the recipients to better understand the climate risks related to hydro-meteorological variables. Training will be provided to communicators to encourage them to assist in interpreting climate information in the communities of the ZPMMT. The project will focus on developing climate information products, such as

newsletters or others that are identified as suitable for the communities, allowing for discussions at the community level. This will support their disaster preparedness and response capacities, as well as promote best agro-productive practices at the community level (Component 4).

Output 2.3: Community early warning systems for extreme hydro-meteorological events.

147. As identified in the context section, there are communities within the ZPMMT that are highly vulnerable to droughts and disaster risks from flooding and landslides caused by the increase in extreme rainfall events and cyclonic storms and climate variability that generate these impacts on the communities. Through the activities of this Output, work will be done with the communities in coordination with the results of the risk maps created in Activity 1.2.1 to ensure that for the most vulnerable communities, the installation of community early warning systems can be carried out, along with drills and investments in assets that will help improve the communities' preparedness and response capacities to these impacts.
148. Gender and Inclusion Approach: In the face of drought, flooding and landslides, there is greater vulnerability among people with reduced mobility, disabilities, elderly individuals, women heads of household, and children. In this regard, the project will ensure the prioritization and strengthening of capacities in households with these characteristics. Additionally, these vulnerabilities will be considered both for the selected communication methods and for identifying assets or investments that need to be strengthened to improve the community's preparedness and response capacities. In governance committees and plans the Project will promote the leadership positions of women and IPs.
- Activity 2.3.1: Install community early warning systems for extreme hydro-meteorological events.**
149. A network of **community meteorological stations** will be incorporated in the 50 communities, which will allow for the possible acquisition and provision of updated, reliable information to be used in collaboration with INAMEH and validated with the hydro-meteorological stations acquired in Activity 2.2.1.
150. Additionally, through this activity, the community will be introduced to the scope and uses of the stations through a training and empowerment workshop to help them understand climate information. The training will include the importance of obtaining rainfall and hydrological data (rain gauges, limnographs), the process of identifying suitable locations for installing rain gauges and limnographs, among others. These activities will be carried out jointly and in coordination with the governing body - INAMEH - with the aim of comparing and validating satellite data and official forecasts with the collection and reporting of the official community rain gauge program to manage hydro-meteorological information in a timely and anticipatory manner in cases of climate threats to the communities.
151. Work will be done with the community to identify **thresholds** that allow for alerting the population about the impacts of drought, flooding and landslides, using information from the stations, as well as markers and local knowledge.
152. Additionally, this activity will support the acquisition of necessary **communication tools** for the alarm system, which may include sirens and megaphones, as well as portable radios and the installation of a high-reach professional radio base that will enable the community organization to coordinate the alert. Work will be done with the communities on raising awareness and forming Community Risk Management Committees, as well as developing a **Community Risk Management Action Plan**, including conducting **drills** to improve the community's preparedness and response capacity.
- Activity 2.3.2: Reinforcement of community assets and capacities to adapt to extreme hydro-meteorological events.**
153. This activity is related to Activity 1.1.1, 1.1.2 as well as Activities 2.1.1 and 2.2.1 and 2.3.1. Building on the generation of greater knowledge of climate risks in the ZPMMT, community risk mapping, records of damages and losses from extreme events, and the development of CEWS and considering the results of the vulnerability to droughts, flood and landslide threats, the needs for reinforcing **preparatory measures** will be determined, including the **reinforcement of assets and capacities** in the selected communities.
154. Through this activity, investment priorities and measures will be identified for each vulnerable community to strengthen preparedness and community response capacities. Measures will include sensitization campaigns, designing action protocols, awareness raising, and providing support to ensure increased preparedness to floods such providing flood barriers, water tanks, draining and cleaning unused septic tanks to avoid overflow and contamination or mitigation and risk reduction measures, such as raising electrical installations. Community investments could also include constructing small storage centers in elevated, less vulnerable areas to protect production from heavy rainfall and floods or rainwater catchment tanks to store rainwater in case of droughts. Capacity strengthening will include work with women and members of the community to promote saving groups to have contingency funds to utilize during extreme hydro-meteorological events. The project is expected to

benefit 4,000 direct beneficiaries. In the full proposal stage further development of activities is expected. Only low-risk E&S activities are permitted.

155. At the CN stage, this activity is a USP. While, the overall activity and its intended scale have been defined, the exact geographic locations of target communities remain partially unidentified due to data limitations. An initial identification was conducted at the CN stage, focusing on highly vulnerable communities in the risk and disaster sector, as outlined in the TNC, and recurrently affected by flood, landslides and/or drought based on expert input. However, more communities have been identified than the project can feasibly support, and sufficient data is lacking to further determine which communities should be prioritized for investments in CEWS preparedness.
156. During the Funding Proposal stage, WFP and MINEC will advance the selection process by:
- Incorporating additional data and studies from the NAPs for Agriculture, Water, and Fisheries;
 - Reviewing updated GIS information and conducting further field-level consultation process;
 - Convening a national workshop with institutional actors, local stakeholders, and academic experts to agree on prioritization criteria and refine the list of target communities.
157. This process will ensure that the criteria for prioritization are evidence-based and inclusive, enabling more precise design of interventions at the FP stage. If final prioritization is not fully achieved during the FP stage, Activity 1.1.1—implemented in the first year—will support detailed local-level risk mapping, targeted community consultations for participatory risk mapping, and technical studies to complete the selection and validate locations at the end of Y1. This sequenced approach ensures that activities are grounded in local knowledge and evolving risk data, thereby improving effectiveness and project targeting. The use of the USP modality provides the necessary flexibility to finalize this targeting based on evolving climate risk information and community inputs. The benefits include improved equity, accuracy, and impact of the intervention. These benefits outweigh the potential risks of delayed compliance with AF ESP and GP, which will be mitigated by ensuring MINEC has the necessary budget and process in place to implements early ES safeguards screening, inclusive consultation processes, and integration of gender, environmental and social action plans during implementation once locations have been prioritized.

Component 3: Restoration and conservation of ecosystems to support livelihoods.

Outcome 3: Degraded watersheds with increased moisture retention and forest cover to withstand the impacts of extreme events and variability and support local livelihoods.

158. The restoration technologies promoted under this project—such as reforestation with native species, assisted natural regeneration, and sustainable watershed conservation—are tailored to directly address the specific climate risks affecting the ZPMMT region, including prolonged droughts, intense rainfall, floods, landslides, and increased climate variability.
159. The project will identify and prioritize degraded areas across upper, middle and the lower watersheds at high risk of erosion and deforestation. Restoration techniques will focus on solutions to increase land's capacity to retain moisture, stabilize slopes, and buffer the intensity of water flows. Native species with deep root systems will be used to enhance soil cohesion and prevent landslides, especially on steep slopes and hillside margins. In lower watershed areas, vegetation cover and riparian buffer restoration will act as a natural sponge and barrier, slowing water runoff and reducing peak flows to mitigate flood risk. Firebreaks and fire-resilient reforestation techniques will be integrated to reduce ecosystem vulnerability to wildfires. To increase drought resilience, reforestation will be concentrated in key water recharge zones where improved vegetation will boost infiltration, replenish aquifers, and regulate stream flows—especially important for agricultural water availability. By restoring the forest's evapotranspiration capacity, these actions contribute to microclimate regulation, mitigating localized temperature.
160. Local actors and communities will be involved and trained in these activities and their monitoring to ensure the sustainability of the efforts. Local nurseries will also be supported to provide native species.

Output 3.1: Key ecosystem areas for integrated water management and sustaining local livelihoods reforested and conserved.

161. Climate change has significant effects on watershed ecosystems, increasing the frequency of extreme weather events (such as droughts and floods) altering precipitation patterns, and raising temperatures. These effects exacerbate problems such as soil erosion, loss of biodiversity, reduced water quality, and water insecurity, **which in turn affect water availability for human consumption, as well as agricultural livelihoods**, including both livestock activities and crop production. Restoring and conserving vegetation in key areas, the soil's capacity to absorb and gradually release water will be increased, reducing the risk of flooding and improving water availability during drought periods. Additionally, it contributes to soil protection and erosion reduction, as the roots of trees and vegetation cover stabilize the soil, limiting sediment runoff into water bodies and reducing erosion in the watersheds. This, in turn, contributes to increased biodiversity and ecological

resilience as habitats for flora and fauna are restored, strengthening biodiversity, which is crucial for the adaptation of ecosystems to extreme climate changes.

162. Community involvement will include training, co-management agreements, and **behavior change** strategies to enable communities to acquire knowledge and tools to monitor their natural resources and understand their role in watershed and forest conservation and management, and how this sustains their livelihoods, contributing to sustainability.
163. Gender and Inclusion Approach: This activity will engage the community in a participatory monitoring system and reforestation efforts, emphasizing women's involvement. A participatory monitoring protocol will be developed through meetings that integrate indigenous, local, and scientific knowledge. Local extension agents from national institutions will support this integration and ensure ongoing monitoring. A gender and diversity responsive approach will promote equitable participation and governance roles, recognizing women's and IPs leading roles in conservation. Sustaining these efforts require involving local communities in reforested area maintenance and providing continuous training in plant care and biodiversity monitoring.

Activity 3.1.1: Restoration, conservation, and reforestation of degraded areas and community monitoring.

164. Venezuela is implementing the National Reforestation Plan 2022-2025 through MINEC, which promotes various programs¹²⁸. Through this activity, the actions of this national plan will be strengthened to contribute to the conservation and restoration of forests and degraded ecosystems. This activity builds on data from Activity 1.1.1, through which in-depth studies to identify critical areas in terms of erosion, deforestation, and degradation risk would have been conducted. This will allow to identify the best options in terms of 1) restoration: natural regeneration, assisted natural regeneration by controlling invasive species or planting key species; 2) conservation: community-based forest conservation and watershed management: engaging local communities in the sustainable management and protection of natural resources, protecting and managing the integrity of watershed to maintain water quality and reduce erosion; 3) reforestation: Planting native tree species to restore original forest ecosystems.
165. This activity will include the assessment of soil composition and its capacity to support new plantations in key areas for water protection in public areas. Maps and georeferencing tools will be used to delineate the areas, prioritizing those near water sources and at risk of landslides or loss of vegetation. Areas that are more vulnerable in terms of water retention and natural recharge will be included, as well as those that can help reduce the impacts of flooding. Reforestation will focus on areas identified as water recharge points in the watershed, which will help retain water and improve the quality of the water resource in the region's aquifers and rivers. Priority will also be given to erosion-prone hillsides and landslide risk zones as well as areas with degraded riparian buffers, biodiversity importance or degradation hotspots. Restoration and reforestation techniques will be customized based on the data on soil characteristics, slope stability needs, and water retention goals considering the risk to landslides, heavy rainfall, flood and drought identified as key hazards.
166. This activity is a USP, and it is partially unidentified. At the CN stage, the type of restoration has been defined, but the exact restoration sites remain to be finalized due to the need for more localized risk and ecosystem data. For the development of the CN, the National Reforestation Company (CONARE) provided an initial identification of key degraded areas, reforestation and conservation needs within the ZPMMT, along with an indicative budget per hectare. Based on this information, the project formulation team extrapolated data to estimate the scale of intervention and the corresponding budget for this activity.
167. During the FP stage, WFP, MINEC, and CONARE will further refine the prioritization of watersheds using updated data from the NAPs on Agriculture, Water, and Fisheries, fields visit to validate geospatial data and stakeholder engagement. This phased approach ensures that restoration efforts are targeted to areas where they will deliver the greatest environmental and climate resilience benefits. It also enables timely completion of environmental and social screening, consultations, and gender assessments, all of which will be conducted once preliminary sites are defined during the FP stage. Final site selection will be refined during Year 1 through

¹²⁸ Programs: «One Student, One Tree»: It is responsible for supporting each high school graduate in the commitment to plant a tree, to ensure their professional future. «Preserving»: It outlines a series of measures and procedures, the implementation of which is aimed at the gradual restoration of vulnerable botanical communities, as well as generating policies for the conservation of the national forest resource. «Sowing Life»: It seeks to recover the areas of the watershed basins, with priority given to the country's most important reservoirs, which serve as suppliers of water for human consumption and irrigation. The aim is to ensure the availability and sustainable integrated management of the vital liquid in the face of the effects of climate change. «Ecourbanism»: Create and restore spaces with high ecological potential, allowing for the full development of humanist and ecosocialist awareness. «Agroforestry»: It is responsible for organizing, in collaboration with community leaders, a social network focused on the sustainable use of peri-urban agroecological systems, in search of planting fruit trees in agricultural systems. «Adopt a plant»: MINEC makes available to communities the plants from the various nurseries of the institution and affiliated entities so that families can adopt a plant, keep it at home, and care for it until it reaches 80 centimeters or one meter in height, after which it will be taken for planting during reforestation events.

Activity 1.1.1 which will deepen on local-level data. Applying the USP at this stage ensures restoration is targeted to the most impactful and vulnerable areas, which will be informed by improved data and participatory planning, thus reducing risks of maladaptation and enhancing environmental and social outcomes.

168. This activity will be planned and implemented in coordination with key institutional and community stakeholders at the local level. Identified areas will be validated with them and engaged for the implementation, ensuring active community participation in the activities.
169. Selection of **native species**: reforestation will only be carried out with native species. To do this, native tree, shrub, and groundcover species that are suitable for the conditions of the ZPMMT watersheds will be identified and documented. These species must have a natural adaptation to the climate, contribute to local biodiversity, and promote soil stability.
170. Strengthening of **public nurseries**: Six public nurseries present in the ZPMMT will be strengthened for the propagation of the selected species, ensuring that the plants are developed under controlled conditions until they reach the appropriate size for their transfer.
171. **Protection and improved management of critical areas** with deep-rooted plants will also be encouraged: Native species with deep roots will be used in areas prone to erosion, such as slopes and inclines, to stabilize the soil and protect water streams from sedimentation. This prevents sediment runoff into rivers and reservoirs, which could affect water quality
172. As part of the activities, efforts will focus on strengthening community capacities for conservation, improved management, and reforestation. Additionally, training for government technicians, the private sector and communities will enhance their ability to monitor reforestation and deforestation activities. Continuous community-involved monitoring has been identified, based on lessons learned, as a key factor for success.
173. **Target**: This activity is estimated to restore approximately 350 hectares of degraded ecosystems through reforestation, natural regeneration, and conservation measures. In addition, around 1,000 hectares are expected to be brought under sustainable forest/watershed management and improved conservation practices. A further 100 hectares will benefit from agroforestry integration under Component 4, contributing to landscape-level resilience and helping reduce pressure on restored ecosystems.

Activity 3.1.2: Support for the development of community nurseries and a community network for the recovery of native seeds.

174. Through this activity, a diagnostic will be conducted to identify local seeds, generate a methodology, and create a program for the rescue of native seeds. A network of producers will be organized and created to produce native seeds to establish community nurseries, as well as supporting local government nurseries for the provision of native species for the restoration of degraded ecosystems.

Component 4: Promote the adoption of resilient agro-productive practices.

Outcome 4: Livelihoods of vulnerable communities in the ZPMMT diversified to withstand the impacts of extreme events and climate variability.

175. Based on the knowledge generated through Component 1 and the increased hydro-climatic information available from Component 2, this component will work with vulnerable smallholder farmers to improve their agro-productive activities in alignment with the land-use plans of the ZPMMT and the watershed management and conservation plans generated in Component 1 to reduce their vulnerability to the identified climate threats.
176. Climate variability and the increasing frequency of extreme events -such as droughts, heavy rains, cyclonic storms, floods, and landslides- lead to agricultural losses, soil degradation, and economic difficulties for communities of the ZPMMT. This leads to an expansion of the agricultural frontier contributing to further deforesting. Additionally, traditional practices like the conuco system, which involves logging and burning, continue to degrade the ecosystems in the region. Furthermore, given projected climate impacts, reliance on a narrow range of crops or practices poses a growing risk. In this context, promoting sustainable agricultural practices and diversifying livelihoods by fostering access to markets, better incomes, and other ventures is key to reducing vulnerability to these climate risks. Diversification allows families to incorporate other sources of income and not rely on a single activity or crop that could be affected by the climate. Sustainable practices such as agroforestry, the use of organic fertilizers, and integrated crop management help preserve soil health, reduce erosion, and increase its water retention capacity, making them key practices for combating drought. The introduction of drought-resilient crop varieties contributes and the implementation of soil and water conservation practices such as terracing and living barriers prevent erosion, retain water and allow to stabilize slopes. Crop rotation contributes to maintain soil fertility and break pest cycles. These practices make agricultural systems more adaptable and productive despite changes in climatic conditions. To reduce the risk faced by smallholder farmers who rely on a single source of income—already vulnerable to climate threats—livelihood diversification

will be supported through nature-based enterprises, cottage industries, and circular economy initiatives. This approach is also expected to contribute to improving food security in ZPMMT.

Output 4.1: Resilient agro-productive practices and alternative livelihoods promoted

177. This output will provide technical assistance, equipment, and necessary inputs to support the adoption of the following sustainable agro-productive (see further detail in the activity description). Furthermore, smallholder farmers relying on agriculture income will be supported in accessing markets with better prices to encourage them to maintain these practices and in diversifying their livelihoods towards income generating activities, which are more resilient to the expected impacts of climate change. This is expected to make the livelihoods of the population more resilient and prevent communities from continuing to degrade the key ecosystems for water resources in the ZPMMT.

178. **Gender and Inclusion Approach:** Equal access for women to the different activities will be promoted through a goal of 50% women beneficiaries. Additionally, the capacities and disabilities, schedules, and care space needs will be considered to enable women to participate in training activities, promoting shared responsibility to avoid overburdening women. Women and IP-led microenterprises quotas will be included in the Gender Action Plan along with the strengthening of capacities for the leadership positions.

Activity 4.1.1: Support for vulnerable agricultural communities in adopting resilient agro-productive practices.

179. This activity is related to activities 1.1.1, 1.2.3, and 3.1.1. Based on the studies conducted and the land use allowed in the ZPMMT, work will be done together with local competent institutions and vulnerable agricultural communities to support them in adopting sustainable agricultural practices. This activity includes the provision of inputs, technology, and technical assistance to communities to support the adoption of practices that allow for soil conservation, water resources management, and increase the availability and diversity of nutritious food for the community. The practices to be supported considering the climate risk they contribute to address:

Table 4 Proposed resilient agriculture practices and related climate rationale

Risk	Practice	Rationale
Heavy Rainfall & Floods	Installation of living and vegetation barrier	Planting native and perennial species reduces runoff speed and volume, helping to mitigate localized flooding.
	Terraces and infiltration ditches	Improve infiltration, prevent surface runoff, and lower flood risk.
	Utilization of natural barriers for water retention	Captures excess rainwater in depressions, reducing peak water flow and flood potential.
	Integrated water management	Rainwater harvesting and storage: Reduces dependence on overstressed sources during storms and manages water availability.
	Strengthening knowledge on zoning of agricultural activities	Prevents cultivation in flood-prone or hydrologically sensitive areas.
Landslide	Terracing and vegetation barriers on slopes	Stabilize terrain and reduce slope saturation from heavy rainfall, which triggers landslides.
	Transition to conservationist crops	Shade-grown coffee and cacao provide perennial root systems that stabilize soils on sloped areas.
	Avoiding intensive practices in high-risk zones:	Through improved land-use planning and zoning by local communities, this reduces the risk of further soil erosion.
Drought	Integrated water management	Rainwater harvesting and storage, Improves water availability during dry periods.
	Crop rotation and diversification	Increases soil fertility, increases resilience to low rainfall and reduces water demand.
	Use of native and drought-tolerant species	More adapted to reduced water availability.
	Agroforestry and organic mulch use	Improve soil moisture retention and reduce evaporation.
	Natural depressions for water retention and aquifer recharge	Enhance water availability during prolonged dry spells.
Climate Variability	Crop diversification and rotation	Increases resilience to unpredictable weather, pests, and disease cycles.
	Use of organic compost and bio-inputs	Strengthens soil health and adaptive capacity.
	Community-level training and planning	Enhances local decision-making under changing climate conditions.
	Conservation-oriented zoning and native crop selection	Reduces exposure to yield loss due to sudden climate events

180. Support will also be provided to strengthen markets, including the construction of storage centers and post-harvest services for productions and communities affected by extreme events such as heavy rains and landslides, which lead to isolation and affect access routes to communities. Support for purchase agreements of sustainable agricultural products in public procurement programs or fairs that connect producers with ecological niche markets. There are successful experiences in the state of Monagas, where the local government has granted loans to producers and guides the management of the marketing chain to protect small producers and prevent crop rotation.
181. This activity will also include community-level food education, as well as participatory monitoring of soil, water, and yields, promoting the systematization of knowledge on the benefits of adopting sustainable practices. To capture this knowledge farm diaries will be used as well as participatory exercises throughout project implementation.
182. **Beneficiaries:** a total of 3,000 smallholder farmers are estimated to be supported through this activity.
Activity 4.1.2: Support for the transition of activities that enable livelihood diversification.
183. The anticipated climate impacts in the ZPMMT include an increase in average temperature, greater variability in rainfall, a decrease in average precipitation, and a higher impact from extreme events such as cyclonic storms, heavy rains, droughts, and flooding. In this context, it is crucial to support the communities in the ZPMMT, which are primarily agricultural, in adopting livelihoods resilient to these impacts by generating other sources of income. In this framework, the project will work to identify livelihood diversification opportunities in the selected vulnerable communities for the project. During the consultation process, the following activities were identified as feasible: support for microenterprises in ecotourism, crafts, crops, nurseries, commercialization of ornamental plants, mushrooms, medicinal plants, beekeeping, circular economy, candy production. The aim is to diversify income sources and promote value-added activities to strengthen the livelihoods of the communities in the ZPMMT.

483-184. **Beneficiaries:** Support is expected to be provided to 200 microenterprise projects.

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B. Describe how the project/programme provides economic, social and environmental benefits, with particular reference to the most vulnerable communities, and vulnerable groups within communities, including gender considerations. Describe how the project/programme will avoid or mitigate negative impacts, in compliance with the Environmental and Social Policy and Gender Policy of the Adaptation Fund.

484-185. In terms of targeted support, the project will directly reach 5,000 members of community households (48.5% of whom are women) and 200 state and national government actors and technicians. Direct actions include increasing adaptive capacities with concrete adaptation solutions, such as community risk management in communities affected by extreme hydrometeorological events in the 3 states of the ZPMMT, the development of resilient livelihoods, as well as the transition to activities such as ecotourism or sustainable agricultural practices, and the development of capacities and awareness for policy-makers, technicians, and the population of the ZPMMT. The rest of the household members receiving support from the project are indirect beneficiaries (approximately 15,000 people), as a multiplier effect is created within their family environment. When the adaptive capacity of one member is strengthened, the collective resilience of the household is increased, as the benefits are distributed across the entire family unit, such as: resilient livelihoods, reduced vulnerability to flooding, drought, and landslide events, improvements in quality of life through ecosystem restoration, improved food security, and generally a greater adaptive capacity to withstand climate events. Additionally, with the conservation and integrated watershed management, ecosystem services benefits are expected for the communities in the ZPMMT with 172,235 inhabitants (48.5% women). Finally, the project will support the watersheds of the ZPMMT that supply water to the northeastern region of the country, with a total of 3,763,091 inhabitants (49.7% women) in the states of Anzoátegui, Monagas, Sucre, and Nueva Esparta. Therefore, it contributes to improving the quality and availability of water, as the set of project measures will result in an improvement in the production of water resources enjoyed by this population.

Economic Benefits of the Project

485-186. The project will generate tangible economic benefits for the vulnerable population of the ZPMMT. These benefits include more stable and sustainable income, as well as the preservation and creation of self-employment through the promotion of resilient entrepreneurship. Additionally, effective protection of assets and savings for both the population and local government will be achieved, reducing exposure to large floods and prolonged droughts, as well as the associated costs. Furthermore, the project would contribute to a safer and more reliable water supply for consumption in four states

486-187. Component 1 will focus on creating and strengthening capacities among stakeholders with the establishment of registration systems (Output 1.1), as well as raising awareness among both institutions and

community members about climate risks and impacts (Output 1.2). To achieve this, communication and dissemination strategies (Output 1.3) will be developed, which will reduce the economic impact through education on flood prevention, actions during emergencies, and the proper care and conservation of forests and rivers. This will help reduce the costs associated with the dangers of climate change on livelihoods, infrastructure, and the population in general. Additionally, this component aims to ensure that knowledge and response capacity are maintained beyond the project's duration, guaranteeing the sustainability of activities and avoiding the need for future interventions.

187-188. Component 2, through improvements in the hydro-climatic information system and impact assessments (Output 2.1), and community early warning systems (Output 2.2), will facilitate more effective prevention, mitigation, planning, and management of climate risks. This will result in a reduction of exposure and economic costs for the public and private sectors associated with climate impacts. In particular, the community-based early warning system to extreme hydro-meteorological events will directly protect the vulnerable population in 50 communities, reducing their exposure and the economic costs related to the loss of assets, livelihoods and properties. This system will also generate indirect economic benefits by reducing emergency response costs during extreme events and decreasing the likelihood that the population will need social assistance from the government.

188-189. Component 3, through reforestation and the restoration of 350 hectares of upper and middle watershed ecosystems and strengthening of 6 nurseries, aims to increase the ecosystem resilience of the ZPMMT to climate change (Output 3.1) as well as 1,000 ha. under improved management. These actions will contribute to mitigating the impact of floods and landslides by reducing runoff and creating natural barriers against landslides. This will result in increased income and productivity in the region by decreasing losses in agriculture, fishing, and trade caused by climate hazards and ecosystem degradation. At the same time, issues of drought and soil and hillside erosion will be addressed, both on riverbanks and in agricultural fields, through the implementation of conservation agricultural practices (Output 4.1). This will result in higher incomes for farmers by preventing productivity loss due to poor soil quality or water stress. Fisheries will also benefit from the reduction of pollution and degradation of rivers and reservoirs. On the other hand, sediment accumulation reduces the lifespan of reservoir structures. Large amounts of sediment are a result of accelerated soil erosion processes in the headwaters and upper sections of the watersheds. By reducing sedimentation through reforestation and conservation agriculture, the lifespan of reservoirs is increased, and high maintenance costs for infrastructure are avoided.

189-190. Component 4 will also create the opportunity to adopt new practices for farmers by providing assistance to 3,000 smallholder farmers in agro-productive and sustainable activities, strengthening differentiated markets, and transitioning to other activities such as ecotourism, crafts, among others for a total of 400 livelihood microenterprises (Output 4.1). The search for better practices aims to create climate resilience for small producers in the community, thereby reducing the likelihood of needing social assistance. Lastly, by diversifying livelihoods, new self-employment opportunities and higher incomes will be generated for approximately 1,200 people in the communities. By diversifying their risks with more sources of income, it is also expected that communities will maintain their livelihoods despite the impact of events such as floods or droughts.

Social Benefits

190-191. The project will generate social benefits for both the inhabitants of the protected area — the direct beneficiary population — and those who depend on water from the area's reservoirs and those living in the river discharge areas. On one hand, this will strengthen their resilience to floods and extreme events, both current and future. On the other hand, it will increase their ability to cope with droughts that may threaten the water and food security of the large populations dependent on the water resources of the protected area.

191-192. The products from Component 1 will generate significant benefits for the population in the three states. The increase in technical capacities and the awareness of decision-makers, along with awareness campaigns, communication, and community participation, will provide the population not only with more information and skills but also a greater degree of awareness, involvement, and empowerment regarding the climate impacts in the area and the decisions related to them. This will strengthen their adaptive capacities. Furthermore, local capacities will be reinforced through the exchange of knowledge and lessons learned, facilitating the implementation and maintenance of adaptation projects and ensuring their long-term sustainability.

192-193. The activities of Component 2, such as the development of the hydro-climatic information system (Output 2.1), will enable better preparedness and informed management during extreme weather events. Coupled with the implementation of community-based early warning systems in 50 communities (Output 2.2), the population will benefit from reduced risks, which will help save lives, protect physical and mental health, preserve jobs, lands, and infrastructure, and contribute to long-term sustainability in the region, reducing the population's exposure to climate impacts.

493-194. In Component 3, the restoration of forests and rivers in upstream watersheds (Output 3.1) will improve ecosystem services, significantly contributing to the quality of life, health, and productivity of the population by enhancing the living environment, water quality, soil, air, and biodiversity. Green infrastructure will act as a natural barrier against various climate threats, reducing damage and losses to properties and assets of vulnerable populations.

494-195. The project will be developed in a context of livelihoods that are highly vulnerable to climate conditions. Output 4.1 of diversified agricultural systems and livelihoods, strengthening differential markets, will introduce improvements that will quickly translate into higher productivity. By improving and introducing agroecological practices, productive diversification, water quality improvement, and climate change resilience, significant improvements in food security and nutrition can be expected. These changes are also likely to generate income for families and improve their economic and social well-being.

Environmental Benefits

495-196. The activities of this project generate multiple environmental co-benefits by addressing both climate change adaptation and ecosystem sustainability.

496-197. The implementation of monitoring and early warning systems in 50 communities in Component 2 strengthens the capacity to respond to extreme climate events such as floods and landslides, thus protecting ecosystems and reducing pressure on water resources. By training 5,000 community members and 200 technicians in adaptation practices (Activities 1.1.2 and 1.1.3, and Components 3 and 4) and raising awareness about the issues and how to take action, a more responsible and sustainable use of natural resources such as water and soil is promoted, benefiting both people and ecosystems and biodiversity.

497-198. Reforestation of degraded 350 has. in areas through Activity 3.1.1 along with improved forest and watershed management for 1,000 has. and support for 6 community nurseries in Activity 3.1.2 contribute to strengthening local flora and fauna, improving vegetation cover, providing habitat for native species, and also improving water quality. This not only helps biodiversity but also prevents soil erosion and improves air quality. The promotion of resilient agro-productive practices (Activity 4.1.1) reduces the negative impact of human activity on the environment, decreasing deforestation and promoting the recovery of biodiversity in affected areas, as well as improvements in water quality due to a reduction in the use of agrochemicals.

498-199. Support to strengthen technical capacities to consider the results of Component 1 in its environmental and social safeguards ensures that the project's actions are carried out responsibly, minimizing adverse impacts and promoting a balanced management of natural resources.

499-200. Through the strengthening of markets and support for livelihood diversification (Activity 4.1.1 and 4.1.2), communities have economic alternatives that are less dependent on extractive practices, thereby reducing anthropogenic pressures on ecosystems and natural resources. Together, these activities promote a balance between human development and environmental conservation, providing multiple environmental benefits, strengthening ecosystem resilience to climate change, and promoting the conservation of biodiversity and natural resources, resulting in a healthier and more diverse environment.

Benefits for Gender and Diversity Equality

200-201. This project will ensure that all its activities incorporate a gender and inclusion approach, ensuring that men, women, and people of diverse gender identities participate on equal terms. The active participation of various socially vulnerable groups to food and nutrition insecurity will be promoted, taking into account their specific realities in the sectors of agriculture, fishing, and water resources, while also advancing experiences that will contribute to the development of the National Adaptation Plan for these three sectors. Additionally, differences in access to resources, opportunities, and decision-making will be taken into account in order to design climate change adaptation strategies that address the specific needs of each group and sector. The country is currently formulating the National Climate Change Adaptation Plan for these sectors. In this context, work will also be done on the National Women's Adaptation Plan, establishing guidance, strategy indicators, activities, and actions that promote and strengthen the active participation and involvement of women, young people, and adult women, in all components, both as beneficiaries and as active agents of change, knowledge, and good practices.

201-202. Component 1 will contribute to the establishment and strengthening of institutional (national and local) and community capacities and knowledge management on the mainstreaming of gender equality and women's empowerment in plans, measures, and actions with transformative gender-focused approaches. It will also produce and publish manuals, documents, guides, educational materials, and gender-sensitive geographic information systems, and will systematize the lessons learned as background for future projects. Additionally, it will contribute to reducing the technological gap and managing gender-sensitive communication.

[202-203.](#) The implementation of Component 2, Community Alert Systems and Strengthening of Preparedness and Response will incorporate actions for empowerment and inclusive, accessible, and non-discriminatory participation, with special attention to those disproportionately affected by disasters, particularly the poorest. It will integrate gender, age, disability, ethnicity, and cultural diversity perspectives in access to the project's benefits, while promoting the leadership of adult and young women. With these actions, the expected results include a reduction in the number of women, youth, and girls affected by disasters, promoting planning and training related to emergency response plans, mapping vulnerable human groups, and supporting the strengthening of assets and capacities to be better prepared and respond to the risk of disasters caused by floods and landslides in the ZPMMT. This component will also promote the interpretation of climate information with a gender-sensitive approach to help women be better informed and prepared to protect their lives and livelihoods.

[203-204.](#) Component 3, Conservation and Restoration of Ecosystems, will benefit women by establishing quotas of over 50% participation in reforestation and participatory monitoring actions, promoting better skills and knowledge for the care of key ecosystems for the ZPMMT.

[204-205.](#) Additionally, with Component 4, Promotion of resilient agro-productive practices and diversification of agricultural livelihoods., quotas of at least 50% will be included to receive inputs, seedlings, agroforestry systems implementation, nursery establishment, and 80% of the actions related to seed banks, floriculture, beekeeping, small-scale farming, and nurseries for medicinal and fruit plants. Likewise, the participation of young women in livelihood diversification projects, such as ecotourism activities (tourism promoters, birdwatching, routes, and hiking), will be promoted to diversify their income. The participation of both adult women and young women will also be encouraged in activities such as the management of germplasm (seed banks) of species adapted to the land and the preparation of seed bombs or balls, or onion (fokuoka). In this way, they will be able to develop their means of production from home, strengthen them, and increase the reforested area, biodiversity, and shade to improve their crops and increase the yields of their agricultural products, while benefiting from fruit trees, improving their diet, caring for the trees, and reforesting the forests.

[205-206.](#) In this way, young women and girls will be direct and indirect beneficiaries in the communities, participating to ensure that the activities respond with affirmative actions to their specific needs and concrete issues, closing gender gaps in terms of access and assets for improving agricultural production yields, strengthening their agro-climatic and nutrition knowledge and capacities so they can diversify their livelihoods, increase their incomes, and reduce food insecurity. The shared responsibility of caregiving tasks with men will also be addressed.

[206-207.](#) To achieve the results of improving gender and IPs equality, more equitable access to assets, knowledge, and technologies, and saving the lives and livelihoods of young women and girls, this project considers implementing: i) capacity building, mainstreaming and awareness-raising on gender issues, equal participation in both the household and productive and community spheres, shared caregiving, new masculinities aimed at reducing the overload of unpaid work at home, and inclusive spaces. ii) Promotion of women's and IPs leadership in governance processes and decision-making for climate change adaptation and food and nutrition security¹²⁹ iii) Participatory monitoring of these groups of the different activities implemented through the Project iv) Mainstreaming transformative gender and diversity approaches¹³⁰ to ensure that the project activities contribute to the empowerment of women and the reduction of gender gaps. During the formulation of the full proposal stage, a detailed Gender Analysis will be conducted, as well as a Gender Action Plan, where a gender-sensitive budget will be incorporated to ensure that the project effectively addresses the identified and differentiated needs of men, women, youth, boys, and girls, according to their ethnic background, disability, and age. Positive actions will also be implemented to promote an environment conducive to ensuring that rural women living in these areas can guarantee their livelihoods, rights, and resilience.¹³¹

C. Describe or provide an analysis of the cost-effectiveness of the proposed project/programme.

[207-208.](#) The Project includes activities in its four components that reinforce each other to ensure their sustainability and successful joint implementation. It proposes a combination of investments in different technologies, including adaptation measures with green infrastructure and soft adaptation (e.g., capacity building, awareness-raising, and strengthening information systems), which are combined to comprehensively address the various climate threats and their impacts in the project area. Selection criteria have been followed to ensure cost-effectiveness: the necessary measures were analyzed based on their short- and long-term

¹²⁹ [Building Climate Resilience in Latin America and the Caribbean](#). WFP 2022.

¹³⁰ The Program [Joint Program on Gender-Transformative Approaches for Food Security and Nutrition](#).

¹³¹ The Joint Program to [Accelerate Progress Towards the Economic Empowerment of Rural Women](#).

results, environmental and social impact, other associated benefits, and the initial investment and maintenance budget. These were compared with possible adaptation alternatives and the *business-as-usual* (BAU) scenario (doing nothing). The analysis of alternatives was also based on national and international experiences. By calculating the average investment cost of USD 1,923 per direct beneficiary from components 1 to 4, the project can be considered cost-effective based on other similar investments in WFP.

208-209. The activities of Component 1 are soft measures that include the generation of information on climate risks and impacts, capacity building, and awareness campaigns. They involve low investment with demonstrated effectiveness and sustainability of actions in the long term, as well as benefits that would be justified in all future scenarios (typically low-regret options). These address key issues related to the effects of global changes that are already being experienced in the ZPMMT and will serve as inputs for the proper execution of activities in Components 2, 3, and 4, as well as planning instruments. Furthermore, these activities are aimed at promoting a change in social and cultural behaviors that tend to neglect the ecosystem, which is crucial for their livelihood, and at understanding the importance of resilient productive practices that can prevent the loss of ecosystems and livelihoods. Additionally, through the project, monitoring, evaluation, and learning mechanisms will be established, which include community monitoring, actions for systematizing good practices and lessons learned on adaptation measures, workshops, and exchange visits to promote evidence-based knowledge management. These valuable lessons will be disseminated through various communication products and reflection workshops that will include government institutions, academia, and local stakeholders, and will serve as a foundation for future funding, facilitating the replication and scaling of these experiences.

Table 55: Analysis for the measures of Components 2, 3, and 4

Strategic Measure of the Project	Detail	Alternative technology options for the same results	Detail
Community Early Warning System (CEWS) and investment in strengthening community assets, complemented with community risk maps, rain gauges, drones, and a monitoring system for the impact of climate change effects	<p>A proactive and preventive measure, with low regret (IPCC 2012),¹³² that provides anticipatory information both to the vulnerable population and to the competent authorities for executing timely responses, with visible short-term results that are maintained in the long term.</p> <p><u>Multiple socioeconomic benefits compared to the BAU:</u> scenario: reduction in loss of life and better healthcare, decrease in material and production damage, reduction in economic assistance from the state and other organizations, and increased community resilience by promoting education, cooperation, and coordination within the community in response to disasters..</p> <p>Efficiency elements: It leverages the experiences and capacities already established in the target community and involves this community in risk management. The CCEWS is strengthened with the installation of rain gauges for precise monitoring and drones to improve surveillance reach to hard-to-access areas, community risk maps, and a system for monitoring climate impact effects, which will serve for decision-making based on evidenced information. National experience: Miranda State and the Capital District integrate community work into the EWS. Cost: low initial investment cost (USD 2400</p>	Early Warning System without community involvement	<u>Disadvantages compared to the alternative:</u> By not involving the community, the sustainability of the EWS over time is at risk, as it does not provide a sense of ownership and responsibility. The technologies may be vandalized, or the communities may not react in time. National experience: Vargas State (currently called La Guaira State) did not involve the community, leading to the vandalization of the EWS, which did not function properly. Cost: The initial cost will be lower without the community component, but the maintenance cost of the technology could be higher due to vandalism.
		Disaster insurance	<u>Disadvantage compared to the alternative:</u> it is a reactive measure, as losses and damages have already occurred, resulting in significant costs both at the budgetary and psychological levels for the affected individuals. The most vulnerable population, which is typically of low income, is not eligible as clients for insurance companies
		Relocation of communities in flood-prone areas	<u>Disadvantage compared to the alternative:</u> it is a reactive measure that is too costly, both budgetarily and socially, and very difficult to implement since it involves established population centers.

¹³² IPCC 2012, Summary for Policymakers, in Managing the risks of extreme events and disasters to advance climate change adaptation [CB Field, V Barros, T Stocker, D Quin, DJ Dokken, KL Ebi, MD Mastrandrea, KJ Mach, GK Plattner, SK Allen, M Tignor and PM Midgely (eds)]. A special report of Working Groups I and II of the Intergovernmental Panel on Climate Change, Cambridge University Press, Cambridge, UK and New York, pp. 1-19.

	for CEWS equipment), as well as low operation and maintenance costs		
Strengthening of the middle and upper watersheds and their forests through the restoration, conservation, and reforestation of slopes and steep terrain, and strengthening of local nurseries	<p>The intervention in upstream areas reduces the frequency and impact of floods and landslides in downstream areas, as well as mitigates slope erosion and increases resilience to droughts across the entire system. Visible results occur in the medium term and are sustained in the long term without maintenance.</p> <p><u>Multiple socioeconomic and environmental benefits compared to the BAU scenario:</u> Nature-based Solutions (NbS) not only regulate the hydrological cycle with greater infiltration capacity and reduced runoff, but also improve water quality as they function as natural filters, reduce soil erosion, and sedimentation in rivers (also protecting reservoirs) It provides habitats and promotes essential ecosystem services, such as biodiversity, nitrogen fixation in the soil, and carbon storage and sequestration</p> <p>Efficiency elements: it builds on the successful national experience of the National Reforestation Plan and takes as a lesson learned the importance of shared responsibility in the design, implementation, and monitoring between institutions and the community. Therefore, there will be a strong focus on working with local brigades and their training. National experience: National Reforestation Plan. Cost: USD 4500/ha for planting and maintenance in the first years (<i>Forest restoration in practice across Latin America, Department of Environmental Systems Science, ETH Zürich, 2024</i>)</p>	Construction of sedimentation basins, retention ponds, or infiltration trenches	<u>Disadvantages compared to the alternative:</u> Although they have immediate effectiveness in controlling runoff and sedimentation in the short term, the benefits are limited to these actions and do not provide additional environmental benefits. They may also have an aesthetic impact on the landscape. Furthermore, it can be difficult to find suitable locations to build them large enough to be effective Cost: The regular maintenance of these works, including the cleaning of accumulated sediments and structural repairs, can be costly over time, and maintenance is essential for their proper functioning.
		Widening the riverbed.	<u>Disadvantages compared to the alternative:</u> Although it has immediate effectiveness, it has negative environmental impacts. It can alter aquatic and riparian ecosystems, destroy natural habitats, and affect water quality. Additionally, it may contribute to the acceleration of water flow, which could lead to erosion downstream. Cost: The excavation and widening of the riverbed involve very high costs, especially if significant engineering works are required, such as the construction of retaining walls, bridges, or temporary diversions of the watercourse. In the long term, it could require significant maintenance to prevent sedimentation and maintain its capacity, particularly in areas prone to sediment accumulation
		Coconut fiber nets on the slopes to rehabilitate riverbeds.	<u>Disadvantages compared to the alternative:</u> Although they are a quick and effective solution to stabilize the soil and control erosion in the short term, the environmental benefits are also more limited, and they may have an aesthetic impact on the landscape. Cost: Initial costs may be lower, and installation faster, but they have a limited lifespan and may require replacement, which could increase costs in the long term.
Resilient diversification of farmers' livelihoods and production.	The measure establishes alternatives for climate-resilient livelihoods and production, increases income sources, while also protecting forests and watersheds. <u>Multiple socioeconomic and environmental benefits compared to the BAU scenario:</u> It allows the adoption of sustainable agro-productive practices (such as the use of bio-inputs and crop rotation and diversification) and other types of sustainable production (cultivating conservationist species and planting native and perennial species in rows or crop borders), which not only	Prohibition of Agricultural Production in the Protected Area to prevent deforestation	<u>Disadvantages compared to the alternative:</u> although the effect on deforestation and environmental conservation is immediate, the prohibition may negatively affect local communities that depend on agriculture for their livelihood. Without viable economic alternatives, farmers may suffer significant income losses and compromise food security, which could lead to social conflicts, resistance, and issues related to nutrition and subsistence for the communities

	<p>conserve the environment but also improve soil productivity and profitability in the medium and long term, with direct economic benefits for the producers Practices such as conservation agriculture and agroforestry have proven effective in increasing soil productivity, improving water retention capacity, and mitigating the effects of erosion caused by droughts, which will prevent production losses and economic aid from the government and other organizations.</p> <p>Efficiency elements: This activity will include community consultations, training, awareness-raising, and the provision of necessary inputs and Integrated Water Management technologies. It will also provide training and facilitate the transition to other livelihoods such as ecotourism and handicrafts, among others, to address the harvest time of conservation crops and the impacts of climate change that may affect agricultural production yields. By offering viable and productive alternatives, farmers are more likely to adopt them voluntarily, avoiding social conflicts or resistance that could arise from strict prohibitions. To ensure income improvement and support livelihoods aligned with sustainable agro-productive practices, the construction of collection centers and post-harvest services, as well as strengthening differential markets, is also planned.</p>		
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[209-210.](#) The project presents two activities under the USP definition (activity 2.3.2 and 3.1.1) because more information is needed to prioritize the locations that will receive funding and implementation of both activities. However, the defined technologies to be implemented have been evaluated in this analysis as the most cost-effective alternatives. Efforts will be made during FP stage to prioritize location but if USP activities remain in the implementation stage, the project will ensure budgeted processes for cost-screening, feasibility, long-term sustainability, and alignment with national and local implementation capacities at the end of Y1 and prior to their approval and implementation.

[240-211.](#) Finally, the project aims to leverage human and technical resources from the public sector to carry out activities, using and strengthening existing structures, while ensuring the integration of climate change and adaptation solutions. This contributes to sustainability and guarantees that climate change aspects are considered in future interventions. Additionally, it ensures complementarity with other projects and programs led by public and private institutions that promote community participation, training, and communication strategies based on local practices, culture, and social norms. This allows for effectively promoting behavior change and ensuring greater acceptance and commitment from the local community in the implementation of the proposed measures.

[244-212.](#) The project will further deepen the cost-effectiveness analysis and provide quantitative estimates on the cost-effectiveness ratio of the proposed actions in the Full Proposal stage.

D. Describe how the project/programme is consistent with national or sub-national sustainable development strategies, including, where appropriate, national adaptation plan (NAP), national or sub-national development plans, poverty reduction strategies, national communications, or national adaptation programs of action, or other relevant instruments, where they exist.

[242-213.](#) The proposed actions in the concept note align with and strengthen the aspects established in the 1st, 2nd, and 3rd National Communications on Climate Change (CNCC) regarding: technology transfer, research, climate monitoring and systematic observation, community organization and participation, risk management, emergency and disaster response, and capacity building, contributing to the implementation and strengthening

of the National Climate Change Registry and Reporting System to systematize information and bring the actions of the Venezuelan state closer to achieving the objective of the UNFCCC and the United Nations Sustainable Development Goal number 13.

[213-214](#). This project contributes to the implementation of the country's climate change and development policies and strategies, aligning with the different objectives and goals established in each of the following strategies and plans (see Table 6).

Table 66: List of Strategies and Plans to which the Project Aligns and Contributes

<p>Constitution of the Bolivarian Republic of Venezuela (1999) 133</p>	<p>In its Chapter IX, which deals with Environmental Rights in Article 127, it states that: 'It is a fundamental obligation of the State, with the active participation of society, to guarantee that the population lives in an environment free of pollution, where the air, water, soils, coasts, climate, ozone layer, and living species are specially protected, in accordance with the law'.</p> <p>Article 55, which establishes the right to protection by the State, through citizen security bodies, against situations that pose a threat, vulnerability, or risk to individuals and their properties. In harmony with Article 156, which addresses the administration of risks and emergencies, as well as national policies and legislation on health, food security, environment, water, land use, agricultural, livestock, fishing, and forestry production as competencies of the national public power.</p>
<p>Third Socialist Plan for Economic and Social Development 2019-2025 (Plan de la Patria)¹³⁴</p>	<p>National Objective 1.2: Objectives related to the sustainable use of strategic natural resources, with particular emphasis on hydrocarbons, mining, aquifers, among others, essential for the country's development.</p> <p>Also, in its Objective 2: To end hunger, achieve food security, improve nutrition, and promote sustainable agriculture.</p> <p>In its fifth historical objective, it establishes: To contribute to the preservation of life on the planet and the salvation of the human species. This outlines the guidelines and mandates related to environmental issues, specifically climate change, in national objective 5.4, which is related to disaster risk management, climate change adaptation, and the agrifood system.</p> <p>Finally, the project also contributes to the objective: 3.1.1.4.2. Strengthen national tourism promotion through policies and programs of social and community tourism, particularly the promotion of underdeveloped tourist destinations and agro-ecotourism ventures.</p>
<p>Updated Nationally Determined Contributions (NDCs) in 2021</p>	<p>Agriculture Sector (Food Security): Component 4 aligns with the actions proposed in Sheets 1 and 2, which include: non-polluting agroecological systems, agroecological or organic production, and agricultural bioinputs. It also aligns with actions to strengthen cacao production as a conservationist crop, the prevention and optimal management of the cacao agroecosystem, and the development of training, capacity-building activities, and technology transfer processes in the cacao sector. It promotes the expansion of planting areas with minimal soil tillage and the application of plant cover and other agroecological techniques.</p> <p>Urban Agriculture Sector Sheet 3: Progress in the recovery of native seeds from rural, indigenous, and Afro-descendant origins to adapt to new climatic conditions; promote good agricultural practices to support the food system and increase resilience to climate conditions. Establish an action plan to address the effects of climate change, which integrates different entities and government levels, adapted to various forms of agriculture and different climate zones of the country. Identify areas vulnerable to fires, floods, and other severe climate events in both urban and rural areas. Create training programs, crop rotation practices to mitigate the spread of pests, and the impacts of climate change.</p> <p>Water Sector: It aligns with the actions outlined in Sheet 4, particularly with the goal of Integrated Water Management in Watersheds, emphasizing the protection, sustainable use, and recovery of water resources. Component 2 of the project contributes to the action of establishing an Early Warning Communication Network for threats. It also supports awareness-raising actions in schools about water resources and strengthening capacities on this issue and climate change.</p> <p>Science and Technology Sector: The project contributes to the actions outlined in Sheet 6 through the following actions: Increasing national capacities for hydrometeorological monitoring and climate prediction in the country. It also involves the development of vulnerability maps for the country to prioritize the adaptation strategy in various sectors.</p> <p>Communes Sector: It contributes to the actions identified in Sheet 7, particularly Component 1, which supports awareness-raising actions and the building of climate change adaptation actions through education-driven transformation.</p> <p>Basic Education Sector: It aligns with the actions outlined in Sheet 8, particularly regarding strengthening ecological brigades in educational institutions.</p> <p>Gender Sector: Through the project's gender approach, it contributes to the following actions in Sheet 11: identifying needs, capacities, roles, and gender-sensitive actions to be implemented in disaster and</p>

¹³³ Constitution of the Bolivarian Republic of Venezuela (asambleanacional.gob.ve)

¹³⁴ <http://www.minecc.gob.ve/plan-de-la-patria/>.

	<p>agro-climate risk management with rural women producers. The training that the project will carry out for women agricultural producers and their organizations.</p> <p>Indigenous Peoples Sector: Comprehensive care for the indigenous population in vulnerable conditions residing in the national territory, promoting the eradication of extreme poverty.</p> <p>Risk and Disasters Sector: Component 1, through risk mapping, contributes to Fiche 15 regarding the generation of information and consultation for the process of planning and territorial, sectoral, and population management in the country based on risk minimization management.</p> <p>Ecosystems Sector: The project contributes to Action 4: ABRAES and PORU outlined in Fiche 19. It also contributes to Action 6: Soil Conservation, Desertification, and Drought.</p>
National Strategy for Land Degradation Neutrality (NDT) towards 2030 (2019)	The basins of the Carinicua River, Neveri River, and Manzanares are among the 11 prioritized in Goal 1: by 2030, forest cover will be increased, Measure 1.1: Reforestation. And in Goal 6: by 2030, the integration of NDT (Sustainable Land Management) into territorial planning has been promoted and supported, particularly within areas with a high level of land degradation process: Measure 6.3: Basin Management and Conservation Plan.
National Adaptation Plan (NAP, ongoing)	The sectoral national adaptation plans for agriculture, fisheries, and water resources are in the process of formulation at the same time as the planning of the activities of this project. Meetings have been held with the Coordinator of the NAP to ensure alignment with the activities included there, as well as to coordinate consultation activities at the territorial level.
National Reforestation Plan (2022-2025)	Component 3 of the Project contributes to and aligns with the National Reforestation Plan 2022-2025, aimed at increasing forest cover in the country and combating deforestation caused by factors such as illegal logging and forest fires. It includes measures to engage communities in the protection and maintenance of forests and the conservation of biodiversity.
Great Mother Earth Mission (launched in 2025)	The Great Mother Earth Mission has seven action pillars. It will implement state policies aimed at addressing climate change and will consolidate a new sustainable ecological mode. This proposal aligns specifically with the following pillars: Pillar 2, Sowing for Life , will promote the national plan for seeds, nurseries, and reforestation. Pillar 3, Territory for Life , focuses on watersheds, risk mapping, desertification, and the management and use of national parks. Pillar 4, Climate for Life , involves the development of national climate monitoring, adaptation to the climate crisis, and mitigation efforts.

E. Describe how the project/programme meets relevant national technical standards, where applicable, such as standards for environmental assessment, building codes, etc., and complies with the Environmental and Social Policy of the Adaptation Fund.

[214-215](#) As an ABRAE, the Project will ensure compliance with the PORU for the ABRAE areas, following the guidelines, directives, and policies for implementation in national parks and reservoirs within the scope of the project, as well as providing guidance for the allocation of permissible uses and activities. (Article 17 of the Organic Law for Land Zoning, GO No. 3,238 - Extraordinary, of August 11, 1983). The project will act in accordance with the standards outlined in the Manual of priority areas to address in the event of forest fires and in the integrated fire management published by MINEC.

[215-216](#) The project will ensure compliance with national laws in all project activities through coordination with the governing bodies of each law and MINEC as the Executing Entity of the Project (see table 7).

[216-217](#) The listed regulation and standards are also applicable to the USP activities 2.3.2 and 3.1.1.

Table 77 Applicable regulations for all activities

<p>Environmental Laws:</p> <ul style="list-style-type: none"> Organic Environmental Law. Official Gazette No. 5,833 Extraordinary, December 22, 2006. Law of the National Parks Institute. Official Gazette No. 2,290, July 21, 1978. Wildlife Protection Law. Official Gazette No. 29,289, August 11, 1970. Partial Regulation of the Organic Law for Land Use Planning regarding the administration and management of national parks and natural monuments. Decree 276, June 9, 1989. Reform of the Mochima National Park. Official Gazette No. 4,520 Extraordinary, January 19, 1993. Decree creating the Mochima National Park. Official Gazette No. 30,285, December 20, 1973. 	<p>Laws and strategies with an impact on women's rights:</p> <ul style="list-style-type: none"> Organic Law Reforming the Organic Law on the Right of Women to a Life Free of Violence. Official Gazette No. 6,667 Extraordinary, December 16, 2021. Law for the Promotion of the Use of Gender-Focused Language. Official Gazette No. 6,654 Extraordinary, October 7, 2021. Reform of the Law for the Protection of Families, Maternity, and Paternity, published in Official Gazette No. 38,773, September 20, 2022. Special Regulation to Guarantee Political Participation Rights in a Gender-Parity Manner in the Elections of Deputies to the National Assembly 2015. <p>Laws or regulations related to children and adolescents:</p>
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<ul style="list-style-type: none"> • Biodiversity Management Law. Official Gazette No. 39,070, December 1, 2008. • Integrated Waste Management Law. Official Gazette No. 6,017 Extraordinary, December 30, 2010. • Environmental Penal Law. Official Gazette No. 39,913, May 2, 2012. • Law No. 55 on Hazardous Substances, Materials, and Wastes. Official Gazette No. 5,554 Extraordinary, November 13, 2001. • Forest Law. Official Gazette No. 40,222, August 6, 2013. 	<ul style="list-style-type: none"> • Organic Law for the Protection of Children and Adolescents (LOPNNA). Official Gazette No. 5,266 Extraordinary, October 2, 1998. • Partial Reform Law of the Organic Law for the Protection of Children and Adolescents. Official Gazette No. 6,185, June 8, 2015.
<p style="text-align: center;">Labor Rights Laws:</p> <ul style="list-style-type: none"> • Organic Law of Labor, Workers, and Workers. Official Gazette No. 6,076 Extraordinary, May 7, 2012. • Constitutional Law of the Productive Councils of Workers. Official Gazette No. 41,336, February 6, 2018. • Partial Reform Law of Decree No. 6,243, with Rank, Value, and Force of the Organic Law of the Social Security System. Official Gazette No. 39,912, April 30, 2012. 	<p style="text-align: center;">Indigenous Peoples Protection Laws:</p> <ul style="list-style-type: none"> • Organic Law of IP and Communities. Official Gazette No. 38,344, December 27, 2005. • Law on Demarcation and Habitat and Lands of IP and Communities. Official Gazette No. 39,665, May 3, 2011. • Registry of the Indigenous Community of Our Lady of the Conception of the Santa Fe Plateau of the Kariña People, Sucre State. Dated October 10, 2013.

247-218. Additionally, the Project will ensure compliance with the following laws by type of key action of the project through the project's executing entity (see Table 8). These regulation apply also for the identified USPs.

Table 88: Applicable regulations by type of intervention

<p>Early Warning Systems</p> <p>Hydrometeorological Information</p>	<p>Laws or regulations related to the National Disaster Management System</p> <ul style="list-style-type: none"> • Organic Law on National Security. Official Gazette No. 37,594, December 18, 2002. • Organic Law on States of Exception. Official Gazette No. 37,261, August 15, 2001. • Organic Law of the Bolivarian National Armed Force. Official Gazette No. 6,156 Extraordinary, November 18, 2014. • Law on the National Organization for Civil Protection and Disaster Management. Official Gazette No. 5,557 Extraordinary, November 13, 2001. Presidential Decree No. 1,557. • Law on Integrated Management of Socionatural and Technological Risks. Official Gazette No. 39,095, January 9, 2009. • Simón Bolívar Humanitarian Task Force. Official Gazette No. 38,201, June 3, 2005. • Signage for Ranks and Hierarchies of Civil Protection and Disaster Management - Establishment of the ZOEDAN. Official Gazette No. 41,427, June 26, 2018. • Strategic Regions for Damage Assessment and Needs Analysis (REDAN). Official Gazette No. 41,113, March 14, 2017. • Internal Regulations of the Ministry of Popular Power for the Interior, Justice, and Peace. Official Gazette No. 6,175, February 20, 2015. • Organic Law of the Fire Service and Fire Brigades and Civil Emergency Management. Official Gazette No. 6,207 Extraordinary, November 28, 2015. • Presidential Decree for the Creation of the Great Mission "Quadrants of Peace". Official Gazette No. 41,786, Decree 4,078, December 20, 2019. • National Meteorology and Hydrology Law. Official Gazette No. 5,833 Extraordinary, December 22, 2006. • Law on the National Organization for Civil Protection and Disaster Management. Official Gazette No. 5,557, November 13, 2001 <p>For actions on asset reinforcement: Regarding the current building codes, the regulations for projects, construction, repair, renovation, and maintenance of buildings are considered, as well as the regulations for project construction, repair, renovation, and maintenance of buildings published in Official Gazette No. 4,044.</p>
<p>Restoration and Conservation of Ecosystems</p>	<p>For the implementation of the reforestation, conservation, and ecosystem restoration plan, this project adheres to the national plans of the National Directorate of CONARE and the legal regulations for the establishment of forest plantations, such as:</p> <ul style="list-style-type: none"> • Organic Law on the Environment. Official Gazette No. 5,833 Extraordinary, December 22, 2006. • Law of the National Parks Institute. Official Gazette No. 2,290, July 21, 1978. • Law for the Protection of Wildlife. Official Gazette No. 29,289, August 11, 1970. • Partial Regulation of the Organic Law for the Planning of the Territory on the Administration and Management of National Parks and Natural Monuments. Decree 276, June 9, 1989. • Reform of the Mochima National Park. Official Gazette No. Extraordinary 4,520, January 19, 1993. • Decree for the Creation of the Mochima National Park. Official Gazette No. 30,285, December 20, 1973. • Law on Biological Diversity Management. Official Gazette No. 39,070, December 1, 2008. • Environmental Penal Law. Official Gazette No. 39,913, May 2, 2012. • Forests Law. Official Gazette No. 40,222, August 6, 2013. • Decree 2026 of April 2, 1988 (Regulations on Forest Plantations), Decree 1257, which considers Environmental Impact Studies regulating activities that may degrade the environment, and the Land and Rural Development Law, along with its Regulations, which establishes the types of soils where forest plantations can be located. • Regulations on Environmental Evaluation of Activities Susceptible to Degrading the Environment. Official Gazette No. 35,946, April 25, 1996. <p>For the protection and conservation of high, medium, and low watersheds and protected zones, the following laws on water protection and conservation are considered:</p> <ul style="list-style-type: none"> • Law. Official Gazette No. 38,595, January 2, 2007.

	<ul style="list-style-type: none"> Regulations of the Water Law. Official Gazette No. 41,377, April 13, 2018. Organic Regulations of the Ministry of Popular Power for Water Attention. Decree No. 4,201, Official Gazette No. 42,187, May 12, 2020. Decree 750 on the Regulations for Hydraulic Works Control for water supply in the reservoirs contemplated in the project: El Guamo and Turimiquire.
Resilient Agro-productive Practices and Diversification of Agricultural Livelihoods	<p>For the strengthening of livelihoods and agricultural sectors of the project, compliance with agricultural laws is guaranteed:</p> <ul style="list-style-type: none"> Law on Partial Reform of the Fishing and Aquaculture Law, GO N° 6.150 Extraordinary, November 18, 2014. Law on Integral Agricultural Health, GO N° 5.890 Extraordinary, December 31, 2008. Law on Land and Partial Reform of Agrarian Development, GO N° 5.991 Extraordinary, June 29, 2010. Seed Law, GO N° 207 Extraordinary, December 28, 2015. Law of the National Agro-Food System, GO N° 6.150 Extraordinary, November 18, 2014. National Agro-Food System Law (SUNAGRO), Organic Law of Agro-Food Security and Sovereignty, 2009. Decree N° 6.071, with Rank, Value, and Force of the Organic Law of Agro-Food Security and Sovereignty, GO N° 6.442 Extraordinary, April 3, 2019. Law of Integrated Agricultural Health, Official Gazette No. 5.890 Extraordinary, July 31, 2008. Norms, Measures, and Phytosanitary Procedures for the Adjustment and Operation of Nurseries, Plant Outlets, and Protected Environments, in the Bolivarian Republic of Venezuela, Official Gazette No. 41.754, November 5, 2019. Provisions establishing the norms, measures, and phytosanitary procedures for the prevention and containment of agricultural pests and diseases, Official Gazette No. 41.40, September 12, 2018. Law on Integrated Waste Management, Official Gazette No. 6.017 Extraordinary, December 30, 2010. Organic Law of Tourism, Official Gazette No. 6.152, November 18, 2014. Organic Law of Communal Councils, Official Gazette No. 39.335, December 28, 2009.

F. Describe if there is duplication of project/programme with other funding sources, if any

[218-219.](#) The project has taken into account the experiences of other projects that worked on similar themes, as well as activities implemented through government agencies, to ensure complementarity, synergies, and avoid duplication of actions in the ZPMMT (see table 9).

Table 99: Complementarity of the Project with Other Actions and Projects

Project Title	Status/Implementati on Date	Description	Complementarity/ Lessons Learned by the Project
"Reduction of Vulnerability to Climate Change Effects and Increased Resilience of Rural Women" (TCP/VEN/3703/C3)	Completed 2020-2021 Executors: MinMujer-FAO	Agro-climatic risk management. Gender approach.	The lessons learned and background on climate change (CC) adaptation actions employed and their effectiveness, as well as the gender approach. They worked with a baseline Diagnosis, training plans on adaptation measures, collaborated with INAMEH, and worked with action plans. It was implemented in the Andean region, specifically in the states of Mérida, Portuguesa, and Trujillo.
Global Network Against Food Crises Project (GNAFC) – Venezuela (GCP/VEN/017/EC)	Completed 2021 Executors: FAO-EU	Agro-climatic risk management. Agro-climatic Tables. Gender approach. Implemented in the Andean region, specifically in the states of Mérida, Portuguesa, and Trujillo.	The lessons learned and background on the adaptation measures to CC used and their effectiveness, as well as the gender approach. It worked with Agroclimatic Tables, livelihood strengthening, biodiversity, and food security.
Sustainable Forest Management and Forest Conservation from an Ecosocial Perspective GCP/VEN/011/GFF	Completed 2016-2023 Executors: FAO-MINEC-GEF	IMATACA. Integrating biodiversity conservation, sustainable land management, and Climate Change mitigation into Forest Management for Sustainable Forest Management. It was implemented in the states of Bolívar and Delta Amacuro.	Lessons learned on reforestation, biodiversity conservation, and IP were considered in the design of the project's activities.
EUROCLIMA+ Droughts and Floods in the Andes.	Completed 2020-2021. Executors: INAMEH-CIIFEN-UAE- AECID and AFD.	Strengthening of national and regional monitoring and risk management systems for droughts and floods in the context of climate change and desertification in Andean countries. Mainstreaming of the gender approach. It was implemented in the state of Guárico, as it is the driest area in the country according to INAMEH and national historical records, but due to climatic variability, it also experiences intense rainfall.	The experience of this project was considered because it faces the same climate risks of flooding and drought. Additionally, it worked on the national early warning system for droughts and floods, using the VOLUNCLIMA platform. The lessons learned from this project regarding the need to address both water scarcity and flooding were key in the development of the proposed actions for the project.

"Integrated Management of Multi-use Landscapes and High Conservation Value for the Sustainable Development of the Venezuelan Andean Region" GCP/VEN/020/GFF.	Under development 2022-2026 Executors: MINEC-FAO-GEF	Baseline study on coffee, cocoa, and vegetable crops, with a gender approach in strategies to "reduce and reverse forest degradation in productive landscapes of the Venezuelan Andean region to create a favorable environment for the conservation and sustainable use of biological diversity, with an emphasis on Simultaneous Agroforestry Systems (SAF) and Forest Systems (SF) that contribute to the livelihood of local populations and global environmental benefits." This is being implemented in the Andean region: the states of Mérida, Portuguesa, Barinas, Lara, and Trujillo.	The integrated landscape management is incorporated among the proposed measures as strategies for better resilient practices. Consultation was also conducted on reforestation strategies, biodiversity conservation, and soil degradation reduction, as these are also actions included in this proposal. Lessons learned regarding the importance of community monitoring of reforestation actions were also considered.
"Mitigation of Protection Risks for Vulnerable Indigenous Women and Girls" UNJP/VEN/026/EC	Under development 2023-2024 Executor: FAO-PNUD	Communities prone to threats implement DRM and risk management strategies that take gender issues into account, including community-based early warning systems and anticipatory actions. These strategies are integrated with the National Risk Management System at all levels to protect their lives and livelihoods.	Lessons learned from the management approach with the Free, prior and informed consent (FPIC) as these ethnic groups are also included in the project.
"TNC on Climate Change" and the "First Biennial Transparency Report of the Bolivarian Republic of Venezuela" under the UNFCCC	Completed and Published 2024 Executor: FAO-MINEC	An updated database on climate scenarios, mappings, vulnerabilities, and capacities across all sectors of the country.	Information on observed climate, future climate scenarios, and vulnerability of different sectors was used to prioritize areas of the project and vulnerable communities in the ZPMMT. It was also used to complement the context section and the analysis of the ZPMMT.
NAP in the sectors of Agriculture, Fisheries, and Water Resources	Under development 2024-2026 Executor: FAO-MINEC - funded by FVC	Overcome the existing barriers and gaps and achieve the national objective of reducing vulnerability, improving adaptation capacity, and strengthening resilience to climate change at the national, regional, local, and sectoral levels through the formulation of a National Adaptation Plan for the water resources, agriculture, and fisheries sectors.	Consultations were held with those responsible for the implementation of the NAP to coordinate actions and ensure alignment with the proposals being considered. The duplication of actions was prevented, and it is expected that this project will serve as a precedent for adaptation actions in the areas of agriculture and water resources.
National Reforestation Plan	Under development 2023-2025 Executors: MINEC - National Directorate and CONARE	The National Reforestation Plan includes the identification of critical areas, planning and production in nurseries, which is continuously carried out by MINEC as a policy, the location of soil banks, soil management, and planting. Additionally, to complement the plan, the programs 'One Student, One Tree,' 'Ecocities,' 'Family Agroforestry,' 'Sowing Life,' and the recovery of endangered species are implemented.	Collaboration was carried out with the Directorate of the National Reforestation Plan to ensure synergy. The directorate identified costs and potential reforestation areas, as well as the estimated area to be reforested. Community monitoring was also included as part of the lessons learned and the need for shared responsibility in these actions at the community level.
National Plan for Climate Change Brigades and Climate Risk Mapping.	Under development 2023-2024-2025 Executors: MINEC - National Directorate of Climate Change Adaptation	Raise awareness among the population about the climate crisis and strengthen community capacities in the identification and mapping of climate risks.	Discussions have been held with those responsible to gather lessons learned and the most appropriate actions to raise awareness among the population about the climate crisis and strengthen community capacities in the identification and mapping of climate risks. The project will complement these actions by raising awareness and strengthening community capacities in the identification and mapping of climate risks in the prioritized areas of the ZPMMT.
Project for the Comprehensive Plan for Economic, Social, and Cultural Development of the ABRAE Area of Turimiquire.	Under development 2023-2024-2025	Design and implement an agroforestry system to improve environmental and socio-economic conditions in the rural area. Plant 1,500 fruit trees over 2 years.	Different projects planned by various stakeholders for the Turimiquire area were reviewed to identify and validate the actions of Components 3 and 4 of the proposal. The proposed activities align with the needs and proposals identified by these stakeholders.

G. If applicable, describe the learning and knowledge management component to capture and disseminate lessons learned.

[249-220](#). The learning and knowledge management component includes actions for systematizing good practices and lessons learned, as well as identifying challenges and better strategies to promote behavioral changes in

communities and transition toward greater prevention and improved responses to flood and landslide risks, as well as towards sustainable practices that reduce the risk to water resources and ecosystems in the ZPMMT.

220-221. This will be achieved through the actions outlined in Component 1, which includes the systematization and knowledge capture mentioned (Activities 1.1.1, 2.1.1, 1.2.3), as well as its dissemination through strengthening local capacities, community awareness-raising (Activity 1.2.1), and training directed at technicians from national and local governments in Anzoátegui, Monagas, and Sucre (Activity 1.2.3). This aims to increase understanding of climate risks in the ZPMMT and promote the use of appropriate adaptation measures, including a gender approach and work with Indigenous populations.

221-222. To ensure the sustainability and replicability of good practices, lessons learned will be documented, and various products will be created to disseminate successful adaptation experiences, including materials such as infographics and podcasts. These will be accessible to both decision-makers and local communities, as well as digital tools and multimedia products. Efforts will also be made to ensure alignment with environmental and social safeguards, promoting the inclusive participation of affected communities in the various activities.

222-223. Regarding dissemination, the project will promote the scalability and replicability of effective practices through the exchange of experiences with other regions facing similar climate risks, such as floods, droughts, and landslides, as well as awareness campaigns targeted at different audiences. Various tools have already been used and validated by MINEC in successful awareness-raising activities, such as FOROChat and Cineforo, educational campaigns in primary schools, community work strengthening environmental brigades and those combating the climate crisis, fire and flood brigades, the strengthening of Technical Water Tables, Recycling and Sanitation Technical Tables (METRAS), among other community organizations.

223-224. The Project's Monitoring, Evaluation, and Learning system will ensure the recording of trainings and various activities that allow for tracking actions as well as capturing the strategies that work best for the project's objective. Work with each community will be analyzed as pilot projects, from which, in addition to systematizing experiences, evaluations will be conducted to understand the effectiveness of promoting different practices. The WFP MEL system uses a combination of quantitative and qualitative methods to monitor project implementation and outcomes. Quantitatively, it tracks progress through standardized monitoring tools, process reviews, and outcome measurements, supported by a beneficiary feedback loop integrated throughout the project cycle. This includes tools applied at the start, during, and after interventions to assess performance and the adoption of expected practices. Qualitatively, the system incorporates focus groups and participatory learning with communities to capture insights, understand the progress in their capacities, document experiences, and adjust interventions. It emphasizes learning, good practice documentation and participatory approaches. A structured MEL strategy with MINEC and local partners, will further be developed and tailored for the project in the full proposal stage.

224-225. All activities in Components 2, 3, and 4 of implementation will be carried out with a participatory approach and community monitoring, promoting the incorporation of local and Indigenous knowledge in the implementation of the best adaptation measures, as well as the exchange of knowledge to generate citizen science. Exchange visits will foster a virtuous circle of continuous learning between institutional and community actors. Additionally, an inclusive approach will be adopted in all materials and workshops, ensuring equitable gender representation and inclusion of IP, as well as the active participation of women and youth. In this way, the knowledge management and capacity-building component will contribute to better adaptation capacities in vulnerable contexts.

H. Describe the consultative process, including the list of stakeholders consulted, undertaken during project preparation, with particular reference to vulnerable groups, including gender considerations, in compliance with the Environmental and Social Policy and Gender Policy of the Adaptation Fund.

225-226. The formulation of this project has been led by MINEC – the National Designated Authority for the Adaptation Fund – and supported by WFP.

226-227. The project idea was consulted and collectively developed by MINEC as the National Environmental Authority, addressing the prioritization of the country's river basins that need to be addressed due to their high vulnerability to the effects of climate change. The project aims to increase local resilience to climate change impacts such as drought, fires, landslides, and floods in the Turimiquire Mountain Massif and associated river basins.

227-228. Within the framework of the formulation of this concept note, consultations were held in four main instances between June and October 2024: 1) Start-up workshops with key national actors, WFP, and its main partners; 2) Bi-weekly meetings with governmental actors; 3) Virtual bilateral consultations with representatives of governmental and non-governmental organizations, including consultations with women's groups and

representatives of IP; 4) Google form to gather information from key actors; 5) Collective Concept Note (CN) construction mission with a field visit, which included visits to 3 prioritized sites where consultations and working groups were held with **local institutional actors**, as well as **consultations with the community** and **focus groups of women**.

[228-229](#). **Table 10** lists all the actors consulted throughout the mentioned instances. In total, 485 people were consulted during this stage (65% women), of which 210 are from the national government (ministries, administrations, governmental organizations, and municipal governments) (51% women), and 275 are representatives of associations and the local population (84% women). A total of 14 representatives from Indigenous Peoples participated in this process, of which 10 were women (71.4% women).

Table 10: Stakeholders consulted during the CN development

Gobierno Nacional y sus expresiones territoriales National Government and its Territorial Expressions		
<ul style="list-style-type: none"> National Observatory of the Climate Crisis, Eastern Regional Headquarters Scientific Council of Monagas General Directorate of Management Policies and Ecosystem Conservation INAMEH National Reforestation Plan State Unit of the Ministry of Popular Power for Agriculture and Lands (UEMPAT) – Monagas, Anzoátegui, Sucre INSAI – Monagas, Anzoátegui, Sucre FONDAS – Monagas, Anzoátegui, Sucre INIA – Monagas, Anzoátegui, Sucre INTI – Monagas, Anzoátegui, Sucre Coordination of the National Climate Change Adaptation Plan in the sectors of Agriculture, Fisheries, and Water Resources Coordination of the 3rd National Communication 		
<ul style="list-style-type: none"> Ecosocialist Territorial Units – Monagas, Anzoátegui, Sucre National Observatory of Climate Change – Monagas, Anzoátegui, Sucre Fundambiente INPARQUES – Monagas, Anzoátegui, Sucre IFLA MINAGUAS – Monagas, Anzoátegui, Sucre MINMUJER – Monagas, Anzoátegui, Sucre Ministry of Popular Power for the Communes and Urban Agriculture (CIARA) – Monagas, Anzoátegui, Sucre Civil Protection and Disaster Management – Monagas, Anzoátegui, Sucre MINCYT – (Fundacite) – Monagas, Anzoátegui, Sucre Climate Change Brigades 		
Local Governments		
<ul style="list-style-type: none"> Government of Sucre, Anzoátegui, and Monagas <ul style="list-style-type: none"> Directorate of Environment Directorate of Economic Development Mayors' Offices of Cumaná, Barcelona, Maturín Directorate of Environment Directorate of Economic Development 		
Civil Society Organizations		
In the state of Anzoátegui: <ul style="list-style-type: none"> Agricultural Producers Association Water for All Foundation (Fundación Agua para Todos) NGO There is Still Time (ONG Aún Hay Tiempo) Aquarium (Acuario) Turimiquire Brigade (Brigada de Turimiquire) 	In the state of Sucre: <ul style="list-style-type: none"> Ecosocial Awareness Foundation Movimiento Ecologista Venezolano (MEVEN) 	In the state of Monagas: <ul style="list-style-type: none"> Peace and Life Movement Mission Tree
Universities, Private Sector		
<ul style="list-style-type: none"> University of the Andes CIDIAT. Inter-American Center for Integrated Water and Land Development University of Oriente (UDO) Fedecámaras 		
International Partners		
WFP – Local Offices in Sucre, Anzoátegui, and Monagas		
Local Communities		
Anzoátegui: <ul style="list-style-type: none"> Focal Group of Women: Street Leaders, Commissioners, Communal Council Local Communities 	Sucre: <ul style="list-style-type: none"> Focal Group of Women: Street Leaders, Commissioners, Communal Council Local Communities 	Monagas: <ul style="list-style-type: none"> Focal Group of Women: Street Leaders, Commissioners, Communal Council Local Communities: Neighbors, Spokespersons, and Street Leaders
Instituciones locales Local Institutions		
Anzoátegui: <ul style="list-style-type: none"> Anzoátegui State Tourism Corporation (CONRANZTUR) Forest Firefighters Ombudsman's Office (Defensoría del Pueblo) of the Legislative Council of the State of Anzoátegui (CLEANZ) 	Sucre: <ul style="list-style-type: none"> Sucre Educational Zone Ministry of IP Sucre 	Monagas: <ul style="list-style-type: none"> Territorial Unit of the Ministry of Water of Monagas Eastern Sociobioregion of INSAI Territorial Unit of Socialist Institute of Fisheries and Aquaculture (INSOPESCA)

		<ul style="list-style-type: none"> National Police Territorial Unit of the Ministry of Popular Power for IP
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229-230. With all these actors, the threats and impacts of floods, cyclonic storms, and droughts, which are exacerbated by climate change and the El Niño/La Niña phenomenon, as well as larger fires and non-climatic issues in each of the regions within the prioritized area, were validated. Needs for institutional strengthening and monitoring of different variables were identified, as well as the need to improve agricultural practices and livelihoods, as well as capacity building. The need to improve early warning systems, whether existing or the development of new ones for some areas, was also identified. Some of the topics discussed with representatives of the local population provided a better understanding of the impacts of droughts and floods, such as their effects on crops, transportation, communications, and health, increasing the vulnerability of certain groups like women, pregnant women, elderly people, and IP (see table 11).

Table 1144: Main feedback from the consulted parties and how it was considered in the proposal

Organization/Institution	Main feedback received
UTEAC Anzoátegui Bilateral meeting (July 1, 2024); 4 participants (2 women)	<ul style="list-style-type: none"> The impacts of flooding in the upper and middle basin of the Neverí River, as well as the effects of droughts and fires, were validated in order to define the context and environmental issues. Additionally, data was collected on the region's agricultural activities, the effects of deforestation, and the need to continue with awareness-raising, reforestation, and sustainable agricultural practices, such as in the El Hatico area. The importance of awareness-raising measures, community monitoring, fire and flood risk management, and strengthening climate information and early warning services was also identified, contributing to the design of Components 1, 2, 3, and 4.
UTEAC Monagas (July 2, 2024); 9 participants (9 women)	<ul style="list-style-type: none"> Issues of pollution and agricultural expansion were validated, along with knowledge barriers and the need to diversify livelihoods, which influenced the design of activities for Outputs 1.1 and 4.1. The presence of IP who depend on agriculture and livestock was highlighted. As lessons learned, the need to map affected areas, create a comprehensive action plan, and have adequate infrastructure and resources was emphasized. Proposed measures include promoting coffee and cacao production, implementing rainwater harvesting systems and well drilling, and establishing an early warning system, which informed the design of Components 1, 2, 3, and 4.
Turimiquire Brigades (July 3, 2024); 6 participants (3 women)	<ul style="list-style-type: none"> Issues related to subsistence farming in vulnerable populations were identified, such as encroachments in protected areas, deforestation, burning, and conflicts over water and land use, as well as pollution and critical drought in rivers, which helped describe the context. The need for greater community participation in monitoring, oversight, and early warning systems was highlighted, influencing Components 1 and 2. The proposal to increase capacity building and awareness, intensify monitoring, reforest critical areas, and update the land-use planning for the basin supported the design of Component 3 and confirmed the importance of Component 4.
University of the East and National Observatory of the Climate Crisis , New Eastern Region (July 9, 2024); 11 participants (6 women)	<ul style="list-style-type: none"> The need to strengthen governance and implement protection measures against logging drove activities in components 1 and 3. The expansion of the monitoring network with flow measurement and meteorological stations, along with the development of an EWS based on inputs and previous experiences, supported the design of Component 2. Additionally, the need to diversify livelihoods, with a focus on agriculture, contributed to Component 4.
Scientific Council of Monagas (July 8, 2024); 7 participants (2 women)	<ul style="list-style-type: none"> The validation of local issues related to climate change and deforestation, such as burning, logging, the need for reforestation, and environmental education, as well as the creation of risk maps in vulnerable areas, contributed to the development of the context and activities of Components 1 and 3. The experiences of the "Embalse Plan and El Guamo Park" and the improvement of contingency protocols in Mérida to protect water sources strengthened the design of Component 2. Finally, strategies to increase food security were discussed.
National Adaptation Plan (July 22) Coordination of the 3rd National Communication (July 23); 8 participants (7 women)	<ul style="list-style-type: none"> A discussion was held with the coordination of the National Adaptation Plan to coordinate actions and ensure alignment with the proposal of the sectoral NAP for water resources and agriculture. Key inputs were obtained from the 3rd National Communication, such as vulnerability analyses and key sources of information to develop the context of the NC.
General Directorate of Management Policies and Ecosystem Conservation (August 21, 2024); 8 participants (5 women)	<ul style="list-style-type: none"> The exchange allowed progress in defining the prioritized areas within the ZPMMT. The need to update the legal frameworks and land-use planning, which has supported the development of activities in Component 2, is mentioned.
Fundambiente (August 23, 2024); 7 participants (3 women)	<ul style="list-style-type: none"> They propose addressing CC issues and capacity building through training in practices related to solid waste, community nurseries, reforestation campaigns, agroecological management, agroecological practices, temperature, and soils. They also aim to improve awareness and information dissemination through a phone chat forum. The contributions primarily influenced activities in Component 1 for capacity building, but also in Components 3 and 4.

Organization/Institution	Main feedback received
Inparques (August 23, 2024); 5 participants (3 women)	<ul style="list-style-type: none"> The agricultural issues in the middle and upper basin of the ZPMMT, along with the need for awareness, transition to crops such as coffee and cacao, and the strengthening of livelihoods, including responsible tourism, contributed to the design of Components 1, 3, and 4. Additionally, the lack of monitoring tools, proper protocols, and improvements in monitoring and control informed the design of Component 1.
IFLA (September 2, 2024) 3 participants (2 women)	<ul style="list-style-type: none"> Requirement for a monitoring and resource management tool and extensive experience in managing basins and sub-basins, as well as the design, evaluation, and studies of mountainous areas for forest management. Extensive knowledge and experience in implementing projects in these areas (management plans, land management, national reforestation plan, agroclimatic and marketing tables). The contributions informed the design of activities for Component 1 and Component 2.
INAMEH (September 13, 2024); 5 participants (3 women)	<ul style="list-style-type: none"> INAMEH commented on the need to strengthen the monitoring of climatic and hydrological variables and provide more information on the status of the network of stations, as well as previous experiences in implementing community-based EWS. The need for a community-based EWS in Cumanacoa and territorial planning were used in the development of activities in Component 2.
National Reforestation Plan (September 16, 2024); 5 participants (4 women)	<ul style="list-style-type: none"> Alignment with the objectives and actions of the National Reforestation Plan, as well as key information on lessons learned and the importance of community monitoring. Experiences in awareness-raising work with populations and brigades in the field, the production of outreach materials, and executed planting programs and community nursery projects served as inputs for the development of activities in Components 1 and 3.
Mission: Local Government Institutions of Monagas (September 25, 2024); 83 participants (40 women)	<ul style="list-style-type: none"> Climate risks such as droughts, floods, and fires were validated. Issues of deforestation, agricultural expansion, poor management of natural resources, and water contamination guided the activities of Component 1. The disconnection of communities during rains, affecting food distribution and causing losses, along with the need to strengthen capacities to manage climate risks, informed the measures for the early warning system (EWS) in Component 2. Additionally, the impact on food security and livelihoods of the communities guided the activities in Component 4.
Mission: Monagas Community (September 26, 2024); 47 participants (30 women)	<ul style="list-style-type: none"> The main identified needs, such as reforestation and awareness campaigns, were the foundation for designing measures in Components 1 and 3. The lack of an early warning system and the need to improve infrastructure for managing climate risks influenced the development of Component 2. Additionally, the climate impacts (rain, droughts, fires) affecting agriculture, access routes, and water quality, along with proposed activities such as agro-tourism, eco-tourism, and handicrafts, supported the creation of activities in Component 4.
Mission: Local Government Institutions of Sucre (September 27, 2024); 49 participants (28 women)	<ul style="list-style-type: none"> The main climate risks (floods, landslides, strong winds, and earthquakes) as well as socio-environmental issues such as burning, deforestation, fires, and contamination by agrochemicals were validated, which were key to the development of the NC context. Cumanacoa was affected by flooding in 2024. The lack of an early warning system, along with the need for training, equipment, and climate monitoring, and the consequences such as agricultural losses, increased diseases, and the impact on the indigenous population, supported the proposal for an EWS and strengthening assets in Component 2. Additionally, it was proposed to incorporate reforestation projects, agroecological nurseries, and continue with ecotourism and conservation initiatives, which, although hindered by lack of follow-up and funding, were essential in the construction of Components 3 and 4.
Mission: Sucre Community (September 28, 2024); 40 participants (35 women)	<ul style="list-style-type: none"> Climate changes, such as irregular rainfall and droughts, have disrupted planting cycles, affecting agricultural production and food access, providing key information for livelihood diversification in Component 4. The lack of reliable meteorological information and the request for the reactivation of meteorological stations to improve climate monitoring and decision-making in agriculture supported the activities of Component 2. Additionally, proposals for training in sustainable agroecological practices, reforestation plans with native and fruit species, and community nurseries were integrated into the activities.
Mission: Local Government Institutions Anzoátegui (September 30, 2024); 30 participants (17 women)	<ul style="list-style-type: none"> The climate risks of droughts, floods, and fires were validated, which affect agricultural production, housing, and health, especially in vulnerable groups, complementing the context of the NC. Water contamination, caused by unsustainable agricultural and livestock practices, demographic expansion, overpopulation, poor waste management, and the use of agrochemicals, contributed to the development of training activities in Component 1. Indigenous communities in the Bolívar and Sotillo municipalities, affected by land occupation, inadequate agricultural practices, and water contamination, were considered in the design of environmental and social safeguards. The lack of technological equipment, EWS, and legislative updates validated the need for Components 1 and 2. Additionally, the demand for green infrastructure, ecotourism initiatives, and reforestation projects was integrated into the development of Components 3 and 4.
Mission: Anzoátegui Community (October 1, 2024); 75 participants (52 women)	<ul style="list-style-type: none"> The community validated the main climate threats, such as floods, droughts, and landslides, which affect vulnerable groups such as elderly people, pregnant women, and indigenous populations. The climate impacts on agricultural production, food access and transportation, increased diseases, water contamination, landslides, and lack of fuel were key inputs for estimating costs, proposing technological solutions for monitoring, and adjusting the activities of the EWS in Component 2, as well as strengthening and diversifying livelihoods in Component 4. It was proposed to improve climate communication, implement a reforestation plan, and strengthen productive activities such as tourism and gastronomy, all of which were integrated into the design of the project's components.

[230-231](#). During the field mission, **three women's focus group meetings** were organized. The first meeting took place in Monagas on September 26, 2024, with 21 participants. Based on the main climate threats

impacting women, such as droughts and floods, and their consequences-including reduced food availability and increased diseases-the group explicitly requested improvements in communication methods and transportation systems, strengthened emergency response capacities, climate risk mapping, and the development of an early warning system. These inputs were considered in the activities of Components 2 and 4. Another women's focus group was held in Sucre on September 28, 2024, with 34 participants. The assessment of livelihood issues, challenges related to access, transportation, and vector-borne diseases during extreme weather events, along with proposals for disaster workshops, livelihood strengthening, early warning systems, improved communication and climate information, and childcare spaces to facilitate participation in other activities, were key contributions that shaped the project's measures (Components 1, 2, 3, and 4). The third meeting was held in Anzoategui on October 1, 2024, with 58 participants. The group validated floods (the greatest impact) and droughts as the main threats. Floods have had severe consequences, with increased diseases and infections being the most pressing, followed by a lack of access to transportation and communication systems. These inputs were used during the development of Component 2. Their proposals included workshops on livelihoods, entrepreneurship, and first aid, which were considered for Components 2 and 4. Key suggestions (Component 2) included strengthening community organization, improving communication, creating climate committees, preparing early warning systems, and establishing disaster funds, including shelters and medicines. They also proposed reforestation with local plantings and creating school nurseries (Components 3 and 4).

232-233. Also, during the field mission, **representatives from indigenous Peoples** in the area were consulted to ensure their inclusion in the design of the proposed solutions. The communities validated the main climate threats, identifying floods, droughts, and landslides as the most critical risks affecting them. Within the community, the impact on elderly people and pregnant women, considered particularly vulnerable groups, was highlighted. It was specifically recognized that indigenous communities face greater challenges due to their high dependence on agriculture, language barriers, land occupation, inadequate agricultural practices, and water pollution. The absence of an early warning system was highlighted, along with the need to strengthen training, equipment, and climate monitoring to mitigate climate impacts, which include agricultural losses, increased diseases, and specific impacts on these vulnerable populations. Based on these contributions, the importance of incorporating the indigenous worldview into the project design was emphasized, respecting their traditional knowledge and relationship with the territory. Additionally, strengthening government technical teams to work with cultural sensitivity will be considered, ensuring that environmental and social safeguards adequately address the needs and perspectives of these communities.

232-233. During the full proposal stage, discussions will continue with the entities and organizations mentioned in the previous paragraph and will be expanded to include other stakeholders to delve into the technical and budgetary details of the prioritized measures. Furthermore, during the next phase, a Prior, Free, and Informed Consultation process will be conducted with the indigenous population in the project area. Additionally, the Environmental and Social Management Plan, which will include a Stakeholder Consultation Plan aligned with the requirements of the Adaptation Fund's Environmental and Social Policy, will be developed. Consultations will also be held with organizations and agencies with expertise in gender to validate activities and design the Gender Action Plan.

I. Provide justification for funding requested, focusing on the full cost of adaptation reasoning.

233-234. In the formulation of this proposal, careful consideration has been given to the non-duplication and complementarity of the project with other initiatives, as described in Section F. Additionally, it has been ensured that the project activities can generate adaptation results independently. It is important to highlight that none of the proposed activities depend on additional investments from other sources or stakeholders. Below are the scenarios with and without the project for each project component.

Component 1: Risk knowledge and capacity building for climate risk planning and monitoring in the ZPMMT.

234-235. Baseline: Without AF funding, the lack of training and studies to better understand climate risks in the ZPMMT and the state of the various watersheds would hinder adaptation and the updating of the territorial planning plan and watershed management and conservation plans. Without raising awareness in the communities, their organization and strengthening through brigades, and the strengthening of technical capacities to understand climate risks and best adaptation practices, the region would remain exposed to significant risks.

235-236. With AF funds: With AF funding, comprehensive studies on climate risks and vulnerability (Activity 1.2.1) will facilitate the updating of a territorial planning plan adapted to climate change. The capacities of community organizations and conservation brigades will be strengthened, and a social and environmental safeguard system will be developed (Activity 1.2.4), ensuring a sustainable response.

Component 2. Hydrometeorological monitoring and community strengthening of disaster risk management in the ZPMMT.

236-237. Baseline: Without AF funds, the vulnerable communities of the ZPMMT would not have a system to monitor climate impacts, limiting their understanding of extreme events and preventing the implementation of a sustainable hydrometeorological monitoring system. The limited coverage of stations in Monagas, Anzoátegui, and Sucre prevents the collection of accurate hydrometeorological monitoring data, leaving communities without timely information to act when droughts, floods and landslides occur. Additionally, the absence of early warning systems and local technical capacities limits community response and increases vulnerability to climate-related disasters.

237-238. With AF funds: An integrated monitoring system will be implemented in the ZPMMT to record climate impacts on ecosystems, infrastructure, and local livelihoods (Activity 2.1.1). This system, which will include mobile applications to collect data at the community level without the need for a connection, will be managed by trained personnel from local institutions (Activity 2.1.2). The project will implement key interventions in the ZPMMT to strengthen disaster risk monitoring and management. This includes the installation of hydrometeorological stations (Activity 2.2.1) at strategic points in Monagas, Anzoátegui, and Sucre, obtaining real-time climate and hydrological data, which are essential for anticipating droughts, floods and landslides. The training of technicians and local actors (Activity 2.2.2) will facilitate the interpretation and dissemination of this information in accessible formats, improving community understanding of risks. In addition, community early warning systems (Activity 2.3.1) will be implemented, and key assets and capacities in these communities will be strengthened (Activity 2.3.2), increasing their preparedness and response capacity to extreme events.

Component 3. Restoration and conservation of ecosystems to support livelihoods.

238-239. Baseline: Despite the existence of the National Reforestation Plan, which promotes the restoration of degraded watersheds, soil water retention, and the planting of native species, this national effort is not sufficient to meet all local needs. Without additional support from the AF, watershed restoration and the strengthening of public nurseries would remain limited, increasing vulnerability to extreme events. Additionally, the lack of community monitoring would reduce the capacity of communities to manage their natural resources

239-240. With AF funds: The project will carry out reforestation and restoration activities in degraded watersheds, increasing the ecosystems' ability to withstand extreme events. Activity 3.1.1 will allow the reforestation of critical areas with native species selected to stabilize the soil, improve water retention, and protect biodiversity, strengthening the resilience of water resources in the region. Additionally, strengthening public nurseries will ensure a stable supply of native species for reforestation, supporting the long-term recovery of ecosystems. Communities will actively participate in monitoring reforested areas, providing them with tools to manage their natural resources sustainably and adapt more effectively to climate change, ensuring the sustainability of the interventions and reducing environmental risks in the region.

Component 4. Promotion of resilient agro-productive practices and diversification of agricultural livelihoods.

240-241. Baseline: Without AF funding, farming communities would continue with conventional practices without climate adaptation, increasing their vulnerability to extreme events. This would affect their production and food security. Without support for sustainable practices and access to differentiated markets, they would continue with methods that degrade the environment. The lack of alternative livelihoods would limit their income, reinforcing their dependence on intensive agriculture.

241-242. With AF funds: The project will support vulnerable communities in adopting resilient agro-productive practices and diversifying livelihoods, increasing their resilience to climate variability. Activity 4.1.1 will provide technical assistance and equipment for soil conservation and water management, promoting agroforestry, crop rotation, and water management practices that improve productivity and protect natural resources. Activity 4.1.2 will strengthen access to sustainable markets, increasing income and consolidating an adaptive economy. Additionally, support for alternative livelihoods, such as ecotourism and handicrafts, will reduce dependence on intensive agriculture.

J. Describe how the sustainability of the project/programme outcomes has been taken into account when designing the project/programme.

242-243. The project has been designed so that the results endure after the intervention is completed, with the central goal of fostering transformative adaptation capacities throughout the ZPMMT. Its design responds to the needs and interests expressed by the involved communities. Additionally, a multiplier effect of the proposed actions is anticipated through the strategies outlined below, which have been defined by the participating social actors.

- [243-244.](#) Alignment **with national programs**: The project complements the socio-environmental and climate change adaptation programs promoted by the Venezuelan government, strengthened through the resources obtained (see section F for more information).
- [244-245.](#) Integration into **strategies and public policies with permanence in the territory**: The actions will be executed through governmental entities, integrating primarily with the lines of action of MINEC and its affiliated bodies, which include climate justice and environmental sustainability. This allows for ownership, capacity building, and fosters institutional sustainability.
- [245-246.](#) Strengthening **community organization and empowerment of communities**: The institutionalization of dialogue spaces and social organization in the ZPMMT will be promoted, based on the knowledge and experience of MINEC as the executing entity. This will prioritize the sustainable use of natural resources and the adaptation of livelihoods to climate change through local cultural practices. The project promotes the empowerment of local actors for ownership of the project and the engagement of volunteers in the Brigades, who will actively participate in the activities and be able to replicate knowledge in their communities, thus amplifying the reach and sustainability of the results.
- [246-247.](#) **Inclusive and equitable** participation: Active and equitable participation of youth, women, men, and indigenous populations is guaranteed throughout the entire project cycle, including decision-making.
- [247-248.](#) Strengthening **local capacities, knowledge and technology exchange**: From the formulation stage, knowledge and technology exchanges tailored to the intervention area's environment will be planned. Additionally, the use of new technologies, such as drones and satellite imagery, will be enhanced to reduce costs associated with land characteristics. Training will ensure the continued use of these tools beyond the project's completion, promoting the economic sustainability of the action.
- [248-249.](#) Therefore, the project has a series of coordinating elements that are based on social, economic, and environmental sustainability, which are described in more detail in the following paragraphs:
- [249-250.](#) **Social Sustainability**: The project will facilitate the active and inclusive participation of various actors, both men and women in decision-making, leveraging the knowledge acquired during training. Identifying key actors from civil society, the private sector, and the public sector for their integration into dialogue and engagement spaces is essential to structure responses to the environmental issues and climate scenarios of the territory, ensuring the sustainability of these spaces.
- [250-251.](#) Dialogue and decision-making processes will establish smooth communication in the ZPMMT. A team of local facilitators in the Brigades will continue replicating knowledge, best practices, and training more people on the effects of climate variability and change in the intervention areas.
- [251-252.](#) The participation of small farmers, including women, youth, and other vulnerable groups, will foster the reduction of conflicts over the use of common resources and contribute to the improvement of livelihoods, social security, and food security, generating a positive social impact. These farmers and other participants will receive training so they can develop and sustain the proposed interventions, promoting sustainable and resilient livelihoods.
- [252-253.](#) Finally, awareness-raising actions on the effects of climate change among various stakeholders will ensure interest and ownership of the activities, both in the short term and in the medium and long term.
- [253-254.](#) **Economic Sustainability**: The project focuses on diversifying economic activities and adapting agricultural practices to the climate, promoting improvements in crop production so that families can generate sustainable income and maintain these practices after the intervention. These actions prioritize soil conservation, efficient water use, crop diversification, and the adoption of agroecological practices, thus ensuring the long-term viability of agricultural systems, minimizing environmental impact, and improving resilience to climate change. Additionally, the establishment of CEWS and the generation of climate information will enable the population to anticipate and minimize losses in agricultural production, infrastructure, and housing.
- [254-255.](#) To optimize income, the project will facilitate access to markets and improve agricultural livelihoods, raising the quality of life for participating farmers. By relying on low-cost solutions that leverage natural resources, the proposed activities generate benefits that justify long-term investment.
- [255-256.](#) In the design of the full proposal, mechanisms for the sustained participation of private sector actors, such as farmers' associations and other members of the agricultural value chain, will be included. Through training in sustainable practices and project management, the project fosters knowledge exchange between indigenous and non-indigenous farmers, promoting a dialogue and market opportunities that creates new economic benefits and strengthens the sustainability of the project. Post-implementation, it is expected that the strengthened capacities of smallholder farmers, farmers' groups and supported microenterprises will help maintain these linkages, supported by agreements and partnerships fostered during the implementation phase.

~~256-257.~~ **Environmental Sustainability:** Awareness of the climate crisis and its implications will facilitate greater coordination between MINEC, local authorities, and other national actors, promoting joint actions that will benefit and protect the ZPMMT area in the long term. WFP has an Environmental and Social Sustainability Framework that applies to all projects in line with the environmental and social policy of the Adaptation Fund. This allows for the management of sustainability risks, among other risks, and contributes to ensuring a greater impact of the interventions. The landscape restoration actions, and the promotion of sustainable agricultural practices will generate lasting benefits, such as improved hydrological flows, soil fertility, and the production of agricultural and forestry resources, as well as improvements in water quality. To prevent ecosystem degradation, the project will implement awareness campaigns, community consultations, and training, which will promote environmental care of the ZPMMT. Furthermore, it will demonstrate how sustainable environmental management can improve livelihoods and reduce vulnerability to climate change. Barriers to the adoption of these practices, such as the lack of assets and skills, will also be addressed, thereby strengthening environmental sustainability in the territory.

~~257-258.~~ **Institutional sustainability:** The ownership of institutional actors, both local and national, of the results and actions promoted by the project is ensured from the formulation stage, as this project is developed in a consultative manner with extensive involvement of these actors in identifying the main climate issues and the necessary solution. Furthermore, the execution is planned through local and national government institutions, working in coordination and hand in hand with the communities, as active involvement of the beneficiaries is promoted throughout the entire management process. It is recognized that institutional sustainability can only be effective when working together with local organizations, which facilitate dialogue between different groups in society and strengthen the project's impact. For this reason, local organizations are essential in the consultation, design, and implementation strategies of the project.

~~258-259.~~ **Longer-term sustainability:** MINEC will ensure that activities are implemented by the various competent national entities with the legal mandate and technical expertise to manage the specific sectoral areas covered by the project and thus remain embedded in their operations. Detailed implementation arrangements will be developed during the FP stage, including i) the design of clear handover processes, ii) mapping and identification of the specific entities that will assume responsibility for the O&M of each infrastructure component and project-supported action. Replication and upscaling mechanism will further be developed in the FP stage. Some of the proposed activities are already part of public policies at the country level, while for other this project represents a pilot from which to draw lessons and further scale such as the EWS. The strong focus on community engagement and building institutional local capacities is key to ensure ownership and appropriation.

K. Provide an overview of the environmental and social impacts and risks identified as being relevant to the project/programme.

~~259-260.~~ This preliminary analysis of the Project's impacts and risks considers the Policy and the Environmental and Social Principles of the Adaptation Fund, as well as the Environmental and Social Safeguards of WFP. In accordance with the location, type, scale of the intervention, and the nature of the project's activities, it has been classified as a **Category B** project, whose potentially negative impacts are few, of small scale, not extremely widespread, reversible, or easily mitigated. A detailed E&S impact assessment and an Environmental and Social Management Plan will be developed for the full proposal stage.

~~260-261.~~ Activities 2.3.2 and 3.1.1 are USPs at this stage of the NC because there is limited data at this stage to have a prioritized location and therefore, they are subject to an environmental and social risk analysis once the priority area of the activities is determined (see section IIA for the full justification of USP). Further prioritization will be conducted at the FP stage. However, in recognition that they may remain USP, both USP have been kept at this stage to ensure that during the implementation stage appropriate process and tools are developed for environmental, social, gender screening and to ensure USP undergo a validation process with the stakeholders after final site is prioritized in Year1. As part of the due diligence process, the corresponding mitigation measures will be established, and the results will be shared with the relevant communities and authorities.

~~261-262.~~ WFP has a Helpline to address questions, suggestions, and complaints related to the programmatic activities supported by WFP. The Helpline is available through calls, SMS messages, and WhatsApp. For remote areas where phone coverage is intermittent, WFP implements suggestion boxes.

~~262-263.~~ Table 11 presents the identification of environmental and social risks of the Project. This identification was carried out through a document review by the project formulation team, as well as informed by key stakeholders during the project's stakeholder consultation process (see the list of consulted parties in section II.H)

Table 1244 Checklist of environmental and social principles & Potential risks identified

Environmental and social principles	No further assessment required for compliance	Potential impacts and risks – further assessment and management required for compliance
1. <i>Compliance with the Law</i>	Additional evaluation required	<p>The project recognizes that there are currently instances of improper regulatory use within the protected area. The lack of clarity in the usage regulations could result in the implementation of unauthorized productive activities, endangering biodiversity and local communities. To mitigate these risks, the project will review and revise the usage regulations in collaboration with authorities and experts, based on studies from Component 1, ensuring alignment with conservation and sustainable development needs. Project activities will not be implemented until the regulations are approved, and a monitoring mechanism will be established to ensure regulatory compliance. Certain interventions may require specific environmental administrative authorizations or permits. These must be obtained from MINEC or the relevant municipalities, depending on the project's scale, before any intervention is carried out in the project area.</p> <ul style="list-style-type: none"> • USPs: Activities 2.3.2 and 3.1.1 may require specific administrative authorizations or environmental permits once their exact locations and scopes are defined. Their acquisition and regulatory compliance will be ensured, based on studies under Component 1 and the regulations at the national and local level.
2. <i>Access and Equity</i>	Additional evaluation is required	<p>The main risk is that the numerous needs of the communities may not be fully addressed due to limited resources, potentially leading to dissatisfaction among vulnerable groups, social conflicts, and the exclusion of needy sectors. To mitigate this risk, it is essential to establish a transparent access and prioritization mechanism that considers differentiated vulnerabilities and impacts. The project will implement a system that ensures the active participation of marginalized and vulnerable groups, as well as local authorities, ensuring that decisions reflect the realities of all communities and promoting equitable access to the project's resources. Additionally, tools developed by WFP, such as the conflict sensitivity integration strategy and related guidance documents, will be available.</p> <ul style="list-style-type: none"> • USPs: As the locations of USP Activities 2.3.2 and 3.1.1 are still to be determined, there is a risk that logistical challenges may hinder equitable access to project benefits for all vulnerable groups. A transparent access and prioritization mechanism will be established, taking into account differentiated vulnerabilities, during the full proposal phase (ESMP) to mitigate this risk.
3. <i>Marginalized and vulnerable groups</i>	Additional evaluation is required	<p>The risk is that, despite identifying the main vulnerable groups (see Context section), access to the project's benefits may be limited. Logistical difficulties, such as the lack of routes and difficult access in mountainous areas, could hinder the identification and effective participation of these groups. To mitigate this risk, socialization meetings with various stakeholders will be held to ensure that the voices of vulnerable groups are heard. During the development of the full proposal and the Environmental and Social Management Plan, specific measures will be defined to ensure the inclusion and universal access of these groups to the project's benefits, allowing their specific needs to be effectively addressed.</p> <ul style="list-style-type: none"> • USPs: As in ESP2, effective identification and participation of vulnerable groups in Activities 2.3.2 and 3.1.1 is essential. Logistical limitations in mountainous areas may make outreach challenging; therefore, specific measures will be defined in the ESMP to ensure their inclusion once the locations are defined.
4. <i>Human rights.</i>	Additional evaluation is required.	<p>Although no project activities are expected to negatively affect human rights, it is necessary to further evaluate this criterion during the full proposal preparation stage. Additionally, the topic will be included in awareness and training activities, and a Grievance Mechanism will be established to receive concerns regarding human rights within the project framework. Moreover, monitoring activities will be conducted to track these aspects.</p> <ul style="list-style-type: none"> • USPs: Activities 2.3.2 and 3.1.1, involve on-the-ground interventions (reinforcement of assets and capacity strengthening, reforestation and restoration). This will require detailed assessment during the full proposal phase to ensure full respect for human rights in the specific locations once identified.
5. <i>Gender equality and women's empowerment</i>	Additional evaluation required	<p>In the project area, women face additional vulnerabilities due to a lack of land ownership, which reduces their ability to secure stable livelihoods and increases their economic dependence. Without targeted interventions, this structural inequality could perpetuate gaps in access to the project's benefits. Additionally, women's participation in productive and conservation activities may be limited by unpaid labor burdens and a lack of access to technical training and productive resources. To mitigate these risks, the project will establish strategies for equitable access to resources and assets, prioritizing women's participation in leadership and decision-making. Inclusive training, gender-sensitive tools, and strategies will also be implemented, ensuring women's participation in governance</p>

		<p>and project benefits, and fostering support networks to share experiences and build community resilience. <u>The Full Proposal</u> will include a Gender Assessment and Gender Action Plan.</p> <ul style="list-style-type: none"> • USPs: Activities 2.3.2 and 3.1.1 must incorporate gender-sensitive approaches tailored to local realities once their locations are defined, to ensure women's equitable participation and address barriers such as unpaid care burdens or lack of access to resources and training, promoting their leadership and empowerment.
6. <i>Fundamental labor rights</i>	Additional evaluation is required	<p>The project adheres to the compliance with labor laws and regulations. Employment relationships will be based on the principle of equal opportunities and fair treatment and will not involve discrimination. To manage some project activities, the support of contractors and/or subcontractors will be required, who must comply with labor laws and the regulations of the International Labour Organization (ILO).</p> <ul style="list-style-type: none"> • USPs: If the implementation of USP Activities 2.3.2 and 3.1.1 involves contractors or subcontractors in locations yet to be identified, strict compliance with labour laws and ILO regulations will be required.
7. <i>Indigenous peoples</i>	Additional evaluation required	<p>IP, such as the Kariña, Chaimas, Warao, and Cumanagoto, may face challenges related to their cultural and territorial rights. The lack of free, prior, and informed consent could allow activities that impact their lands. Furthermore, the exclusion of their ancestral knowledge in the project planning could limit their sustainable agro-productive practices. Without considering their worldviews, misunderstandings could arise with the communities. Additionally, free, prior, and informed consent is a legal requirement, and failure to comply with it could entail other legal and governance risks.</p> <p>To address these challenges, the project will implement an inclusive approach that respects Indigenous knowledge. <u>During the full proposal process</u>, free, prior, and informed consent will be ensured in coordination with the Ministry of Popular Power for IP, facilitating dialogue with the communities, and an Indigenous Peoples' Plan will be developed. Trainings on cultural awareness and the value of their worldview will be offered to technicians and government personnel.</p> <p>Additionally, there will be collaboration with IP in the development of climate-resilient agro-productive practices, integrating their languages and traditions, thereby strengthening their natural resource management and cultural well-being. WFP will ensure that the Helpline is accessible to members of Indigenous communities. The project will be aligned with the principles of the United Nations Declaration on the Rights of IP.</p> <ul style="list-style-type: none"> • USPs: Considering that the FPIC process will be completed and the ESMP finalized during the FP stage, it will be guaranteed that the USP activities will be implemented only in locations where prior consent has been obtained and documented.
8. <i>Involuntary resettlement.</i>	No additional evaluation required.	<p>The Project does not include activities that could lead to involuntary resettlement. None of the activities presented will pose a risk of relocating people. Nor will they cause the displacement of economic activities.</p>
9. <i>Protection of natural habitats.</i>	Additional evaluation is required.	<p>Despite the project's goal of improving the health of natural habitats, risks may arise during its implementation. Some activities, such as those related to ecotourism, could negatively affect ecosystems within and near protected areas if not properly managed. The lack of environmental and social impact assessments could harm local biodiversity and compromise the integrity of ecosystems, limiting their ability to adapt to climate change.</p> <p>To mitigate these risks, the project will conduct an environmental and social impact analysis before any intervention. It will ensure that the activities have the approval of the relevant authorities and comply with the specific requirements of each area. Additionally, restoration and conservation measures will be prioritized, integrating the traditional knowledge of local communities.</p> <ul style="list-style-type: none"> • USPs: Although USP Activity 3.1.1 (restoration/reforestation) aims to enhance habitats, the implementation of this and Activity 2.3.2 (asset reinforcement) will require further environmental and social impact assessments once their locations are defined, to ensure biodiversity and ecosystem integrity are not negatively affected.
10. <i>Conservation of biological diversity.</i>	Additional assessment is required.	<p>The project includes a vulnerability analysis of the project's area of influence and its main ecosystems. All species promoted as part of the reforestation and restoration processes will be native and local species, adapted to the area. The use of genetically modified organisms will not be employed. The full proposal will include additional elements to ensure the conservation of biodiversity.</p> <ul style="list-style-type: none"> • USPs: Activity 3.1.1 will focus on reforestation using native and local species. However, to ensure biodiversity conservation, additional assessments will be

		conducted during the full proposal phase once the specific sites are determined, to ensure the appropriateness of species and methods.
11. <i>Climate change</i>	No additional evaluation is required.	It is not expected that the project activities will target sectors that generate Greenhouse gases (GHGs). When civil works are required, it is acknowledged that vehicle movement may increase emissions, but this impact is considered temporary and not significant.
12. <i>Pollution Prevention and Resource Efficiency.</i>	Additional evaluation is required.	No significant risks related to the generation of pollution or inefficiency in the use of resources during the execution of the activities have been identified. Nevertheless, in the next phase, this aspect will continue to be analyzed, and it will be ensured that the Environmental and Social Management Plan includes the necessary measures for mitigating this risk. <ul style="list-style-type: none"> • USPs: While no major risks are anticipated, Activities 2.3.2 and 3.1.1 will undergo detailed analysis in the next phase to ensure any use of resources or waste generation at future sites is handled efficiently and sustainably.
13. <i>Public health.</i>	Further evaluation is required.	Although no significant public health risks are anticipated, it is important to note that the increased frequency and intensity of floods may lead to greater contamination and disease spread. However, the project's activities are expected to strengthen ecosystem services, diversify and strengthen community livelihoods, and ultimately improve the population's resilience to these challenges. In any case, the project will include proactive measures to support the population in these aspects, such as training on safe water management practices and small, locally implementable actions to decontaminate drinking water. By strengthening community knowledge and capabilities, health risks are expected to be reduced and a healthier environment promoted, thus aligning the project's actions with the improvement of public health in the region. <ul style="list-style-type: none"> • USPs: While USP Activities 2.3.2 and 3.1.1 aim to strengthen community resilience, a deeper assessment of potential public health impacts will be conducted once locations are defined, to implement proactive measures where needed, such as training on safe water management.
14. <i>Physical and cultural heritage</i>	Further evaluation is required.	Project activities, such as ecological restoration, strengthening agricultural practices, or promoting ecotourism, could inadvertently affect culturally significant sites. Without careful assessment, there is a risk that these interventions could alter historical monuments, such as the Guácharo Cave, or impact areas that are significant to indigenous communities, whose connection to the environment is part of their intangible heritage. <p>To mitigate these risks, the project will include cultural impact assessments in all its interventions. These evaluations will ensure that restoration or land use activities respect the tangible and intangible cultural heritage of the region. Consultation protocols with communities will be implemented, and the project will work with heritage authorities to adjust plans and minimize any potential impact.</p> <ul style="list-style-type: none"> • USPs: As Activities 2.3.2 and 3.1.1 have not yet defined locations, there is potential risk of impacting physical or cultural heritage sites (e.g., Alexander von Humboldt Natural Monument or areas of Indigenous significance). Cultural impact assessments and consultations with communities and relevant authorities will be carried out once intervention zones are delineated.
15. <i>Land and soil conservation.</i>	Additional evaluation required.	The project activities aim to increase ecosystem resilience by promoting land and soil conservation. However, further analysis will be required to ensure that none of the activities cause harm and that appropriate mitigation measures are put in place. <ul style="list-style-type: none"> • USPs: Although USP Activity 3.1.1 (restoration/reforestation) directly targets soil conservation, and Activity 2.3.2 may involve earthworks, a more in-depth analysis will be required once locations are defined to ensure no unforeseen negative impacts occur and appropriate mitigation measures are applied. This will be reflected in the ESMP.

PART III: IMPLEMENTATION ARRANGEMENTS

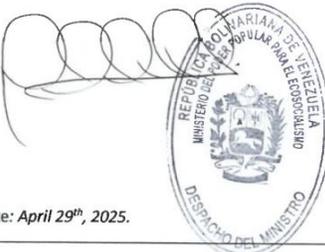
A. Demonstrate how the project/programme aligns with the Results Framework of the Adaptation Fund

Project Objective(s) ¹	Project Objective/ Outcome Indicator(s)	Fund Outcome/Output	Fund Outcome/Output Indicator	Grant Amount (USD)
Component 1: Risk knowledge and capacity building for climate risk planning and monitoring in the ZPMMT.				

Outcome 1: Vulnerable communities and institutional actors of the ZPMMT are aware of their climate risks and plan appropriate measures to manage and reduce them.	Number of people, disaggregated by sex, with greater knowledge about climate risks (and percentage of the total participants in workshops and awareness activities).	Outcome 3: Strengthened awareness and ownership of adaptation and climate risk reduction processes at local level	3.1. Percentage of targeted population aware of predicted adverse impacts of climate change, and of appropriate responses	1,000,000
Output 1.1. Knowledge on climate risk and adaptation actions generated and disseminated. Output 1.2. Strengthened knowledge management.	Number of posts on social media and media outlets that inform about awareness activities on adaptation in the ZPMMT.	Output 3.1: Targeted population groups participating in adaptation and risk reduction awareness activities	3.1.1 No. of news outlets in the local press and media that have covered the topic	
Component 2: Hydrometeorological monitoring and community strengthening of disaster risk management in the ZPMMT.				
Outcome 2: Improved preparedness and rapid response capacity to extreme hydro-meteorological events in vulnerable communities of the ZPMMT.	Type of climatic information generated for the ZPMMT and periodically disseminated to the population.	Outcome 1: Reduced exposure to climate related hazards and threats	1. Relevant threat and hazard information generated and disseminated to stakeholders on a timely basis	1,820,000
Output 2.1: Climate impact damage registration and monitoring system developed. Output 2.2 Timely and usable climate information at the local level. Output 2.3 Community early warning systems for extreme hydro-meteorological events.	Number of CEWS for extreme hydro-meteorological events. Number of people covered by the CEWS disaggregated by sex.	Output 1.1: Risk and vulnerability assessments conducted and updated	1.2 No. of early warning systems (by scale) and no. of beneficiaries covered (and scale)	
Component 3: Restoration and conservation of ecosystems to support livelihoods.				
Outcome 3: Degraded watersheds with increased moisture retention and forest cover to withstand the impacts of extreme events and variability and support local livelihoods.	Number of hectares with improved management, restored, or conserved.	Outcome 5: Increased ecosystem resilience in response to climate change and variability-induced stress	5. Ecosystem services and natural resource assets maintained or improved under climate change and variability-induced stress	2,000,000
Output 3.1 Key ecosystem areas for integrated water management and sustaining local livelihoods reforested and conserved.	Number of physical and natural assets strengthened to withstand the impacts resulting from climate change.	Output 5: Vulnerable ecosystem services and natural resource assets strengthened in response to climate change impacts, including variability.	5.1. No. of natural resource assets created, maintained or improved to withstand conditions resulting from climate variability and change (by type and scale)	
Component 4: Promotion of resilient agro-productive practices and livelihood diversification				
Outcome 4: Livelihoods of vulnerable communities in the ZPMMT diversified to withstand the impacts of extreme events and climate variability.	Number of households strengthening their livelihoods to withstand climate impacts in the ZPMMT.	Outcome 6: Diversified and strengthened livelihoods and sources of income for vulnerable people in targeted areas	6.2. Percentage of targeted population with sustained climate-resilient alternative livelihoods	3,522,000
Output 4.1: Resilient agro-productive practices and alternative livelihoods promoted.	Number and type of adaptation assets created or strengthened to support resilient agro-productive livelihoods.	Output 6: Targeted individual and community livelihood strategies strengthened in relation to climate change impacts, including variability	6.1.1.No. and type of adaptation assets (tangible and intangible) created or strengthened in support of individual or community livelihood strategies	

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

A. **Record of endorsement on behalf of the government²** Provide the name and position of the government official and indicate date of endorsement. If this is a regional project/programme, list the endorsing officials all the participating countries. The endorsement letter(s) should be attached as an annex to the project/programme proposal. Please attach the endorsement letter(s) with this template; add as many participating governments if a regional project/programme:

<p>RICARDO ANTONIO MOLINA PEÑALOZA Minister of Ministry of People's Power for Ecosocialism Bolivarian Republic of Venezuela Telf +584142212879 Correo: oi.ai.minec@gmail.com</p>	 <p>Date: April 29th, 2025.</p>
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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

Name & Signature Laura Melo Country Director & Representative of Venezuela World Food Programme (WFP)		
Implementing Entity Coordinator		
Date: (Month, Day, Year) May 19, 2025	Date: (Month, Day, Year) May 19, 2025	
Project Contact Person: Andres Rodriguez		
Tel. And Email: +584121179218 Andres.Rodriguez@wfp.org		

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 and subject to the approval by the Adaptation Fund Board, commit to implementing the project/programme in compliance with the Environmental and Social Policy and the Gender 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.

Caracas, 29 de abril de 2025

Para: La Junta del Fondo de Adaptación

Asunto: Aprobación del proyecto “Fortalecimiento de la resiliencia de las comunidades, sus medios de vida y ecosistemas ante los impactos del cambio climático en la Zona Protectora del Macizo Montañoso del Turimiquire”.

En mi calidad de autoridad designada para el Fondo de Adaptación en Venezuela, confirmo que la propuesta de proyecto nacional mencionado se ajusta a las prioridades del gobierno nacional en la implementación de actividades de adaptación para reducir los impactos adversos y los riesgos que plantea el cambio climático en la República Bolivariana de Venezuela.

Por consiguiente, me complace respaldar la propuesta de proyecto anterior con el apoyo del Fondo de Adaptación. Si se aprueba, el proyecto será implementado por el Programa Mundial de Alimentos (PMA) y ejecutado por esta institución.



Atentamente

RICARDO ANTONIO MOLINA PEÑALOZA
MINISTRO DEL PODER POPULAR PARA EL ECOSOCIALISMO

Decreto N° 5.095 de fecha 20 de febrero de 2025, publicado en la Gaceta Oficial N° 6.886
Extraordinario de fecha 20 de febrero de 2025

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

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

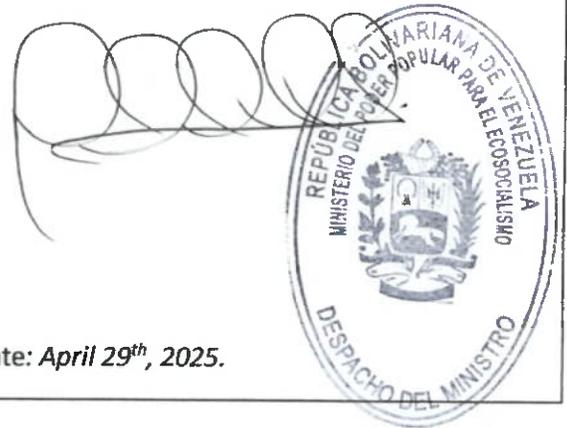
RICARDO ANTONIO MOLINA PEÑALOZA

Minister of Ministry of People's Power for Ecosocialism

Bolivarian Republic of Venezuela

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Date: April 29th, 2025.

⁶ Each 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.

Annex 1: Theory of Change of the Project.

