



**ADAPTATION FUND**

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11 September 2024

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Adaptation Fund Board  
Project and Programme Review Committee  
Thirty-fourth Meeting  
Bonn, Germany, 8-9 October 2024

**PROPOSAL FOR HONDURAS, EL SALVADOR, GUATEMALA**



ADAPTATION FUND

## ADAPTATION FUND BOARD SECRETARIAT TECHNICAL REVIEW OF PROJECT/PROGRAMME PROPOSAL

PROJECT/PROGRAMME CATEGORY: Regional Project Concept

**Countries/Region:** Latin America/Honduras, El Salvador, Guatemala  
**Project Title:** Building Resilience of Urban Communities in Central America by Leveraging Nature-based Solutions (NbS) for Adaptation  
**Thematic Focal Area:** Disaster risk reduction and early warning systems  
**Implementing Entity:** United Nations Environment Programme (UNEP)  
**Executing Entities:** Ministry of Environment and Natural Resources, El Salvador; Ministry of Environment and Natural Resources, Guatemala; Secretary of Natural Resources and Environment, Honduras  
**AF Project ID:** AF00000338  
**IE Project ID:** **Requested Financing from Adaptation Fund (US Dollars):** 14,000,000  
**Reviewer and contact person:** Neranda Maurice-George **Co-reviewer(s):**  
**IE Contact Person:**

<p><b>Technical Summary</b></p>	<p>The project “Building Resilience of Urban Communities in Central America by Leveraging Nature-based Solutions (NbS) for Adaptation” aims to address the interlinked challenge of climate change and urbanization by implementing and upscaling NbS to reduce urban climate risks, enhance climate resilience of the communities, provide sustainable and inclusive livelihood opportunities, and build institutional capacity”. This will be done through the four components below:</p> <p><u>Component 1:</u> Ecosystem-based urban resilience plans are adopted in nine cities and integrated at the national policy level in Honduras, El Salvador, and Guatemala. (USD 1,200,000M).</p> <p><u>Component 2:</u> Enhanced ecosystem services reduce the exposure and vulnerability of urban populations and critical infrastructure in nine cities. (USD 7,760,000 M)</p> <p><u>Component 3:</u> Municipalities are accessing innovative adaptation financing and mobilizing investments from the private sector in NbS for urban resilience. (USD 850,000 M).</p> <p><u>Component 4:</u> Climate-resilient urban planning is adopted by additional cities across Central America. (USD 1,650,000 M).</p>
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	<p>Requested financing overview:  Project/Programme Execution Cost: USD 1,270,000  Total Project/Programme Cost: USD 12,730,000  Implementing Fee: USD 1,270,000  Financing Requested: USD 14,000,000</p> <p>The initial technical review raises several issues such as cost effectiveness, full cost of adaptation basis and issues related to the Environmental and Social Policy and Gender Policy of the Adaptation Fund among others as is discussed in the number of Clarification Requests (CRs) and Corrective Action Request (CAR) raised in the review.</p>
Date	8 <sup>th</sup> February 2024

Review Criteria	Questions	Comments	AE responses
Country Eligibility	1. Are all of the participating countries party to the Kyoto Protocol, or the Paris Agreement?	<b>Yes.</b>	
	2. Are all of the participating countries developing countries particularly vulnerable to the adverse effects of climate change?	<b>Yes.</b> Honduras, El Salvador and Guatemala. face various climate risks, particularly from extreme hydrometeorological events, including floods, storms, and droughts experienced in cities.	
Project Eligibility	1. Have the designated government authorities for the Adaptation Fund from each of the participating countries endorsed the project/programme?	<b>Yes.</b> As per the Endorsement letters dated: 20 <sup>th</sup> July 2023 for Honduras 18 <sup>th</sup> July for Guatemala and; 10 <sup>th</sup> August 2022 El Salvador	

	2. Does the length of the proposal amount to no more than fifty (50) pages for the project/programme concept, including its annexes?	<b>Yes.</b>	
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	<p>3. Does the regional project / programme support concrete adaptation actions to assist the participating countries in addressing the adverse effects of climate change and build in climate resilience, and do so providing added value through the regional approach, compared to implementing similar activities in each country individually?</p>	<p><b>Partly.</b></p> <p>The proposal contains a proposed set of outputs aligned with the outcomes and overall objective of the project suited to address climate change including activities that incorporate nature-based solutions to addressing climate change. The proposed project would also contribute to reducing risks from climate related disasters.</p> <p>The theory of change is well articulated (down to the output level) as contained on pages 14-16. It is noted that this concept note does not specify activities although it provides brief general descriptions.</p> <p><b>CAR1:</b> Please provide an indicative list of activities under each output, to supplement the brief descriptions provided and update the TOC by also including these activities.</p> <p><b>CR1:</b> Based on output 2.3 it seems that the project may include unidentified sub-projects (for some activities either the exact location or the specific measure may only be identified during the project implementation. Please clarify if the project will ultimately contain USPs and if so, please ensure that the revised concept adequately recognises the use of USP in the project and provides a logical justification for their use. Please</p>	<p><b>CAR1:</b> Noted. Indicative activities are included in the proposal and the ToC is updated accordingly.</p> <p><b>CR1:</b> The identification of project activities, specifically pertaining to location and defined Nature-based Solutions (NbS) interventions outlined in Output 2.3, will occur during the project preparation phase following comprehensive risk analysis and stakeholder consultations. Moreover, Output 2.3 emphasizes a collaborative approach with local stakeholders to refine the design of NbS, aiming to optimize co-benefits and secure stakeholder ownership throughout the process. The proposal does not envision USPs.</p>
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		refer to the updated guidance document on USPs <a href="https://www.adaptation-fund.org/wp-content/uploads/2021/05/Updated-guidance-on-USPs-.pdf">https://www.adaptation-fund.org/wp-content/uploads/2021/05/Updated-guidance-on-USPs-.pdf</a>	
	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 of the Fund?	<p><b>Partly.</b></p> <p>The project does provide economic, social and environmental benefits. However further information on the expected beneficiaries is not provided. In addition, the concept does not include initial gender assessment.</p> <p>It is noted that the proposal is accompanied by a PFG which seeks to produce feasibility study, gender action plan as well as an activity marked Environmental and Social Safeguards.</p> <p><b>CAR2:</b> Please provide an initial gender analysis including initial information on the different needs, capabilities, roles and knowledge resources of women and men, and indications on how changing gender dynamics might drive lasting change.</p>	<p>Noted. Kindly consider that in para 15 (previously para 14) there is already a brief description of the gender analysis (highlighted in blue), describing the differentiated impacts and capacities of urban men and women. Additional gender relevant information was already present in the section “Gender integration in urban planning” for each project country (para 84 – 86, previously para 83 - 85).</p> <p><b>CAR2:</b> Please see new section “Gender Analysis” (para 15 - 17) for additional information on gender analysis in the urban context.</p>

	<p>5. Is the project / programme cost-effective and does the regional approach support cost-effectiveness?</p>	<p><b>Unclear.</b></p> <p>The cost effectiveness of the project is partly demonstrated. The project document does provide some general information on the cost effectiveness of the NbS approach, and specific information on the regional approach on page 25.</p> <p><b>CAR3:</b> Please strengthen the cost effectiveness analysis and include project specific information based on the project outputs and activities including quantitative comparisons where possible.</p> <p>Please note that a detail comparative analyses of the cost-effectiveness of the proposed measures with alternative adaptation measures is needed in <u>the fully developed proposal</u>.</p>	<p><b>CAR3:</b> A description of the cost-effectiveness is included for each of the Outcomes and relevant Outputs. See para 72-75.</p> <p>It is noted that a detailed comparative analysis of the cost-effectiveness of proposed measures will be required at full developed proposal.</p>
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	<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 of action and other relevant instruments? If applicable, it is also possible to refer to regional plans and strategies where they exist.</p>	<p><b>Yes.</b>  The proposal is aligned with national policies of the three countries.  <u>Honduras:</u> updated NDC, and Objective 8 of NAP currently under development.  <u>El Salvador:</u> Cuscatlán Plan (PQD 2019-2024); National Environmental Policy; the 2015 National Climate Change Plan and El Salvador's Sustainable Plan (2018-2030).  <u>Guatemala:</u> Framework Law on Climate Change (LMCC) in 2013 with Article 10 of Decree 7-2013; National Climate Change Action Plan (PNACC) 2020.</p> <p>A number of local level policies were also identified for all the local level in the three countries.</p>	
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	7. Does the project / programme meet the relevant national technical standards, where applicable, in compliance with the Environmental and Social Policy of the Fund?	<p><b>Partly.</b> Relevant national legislation is indicated for each country however the proposal falls short of indicating the relevant technical standards and guidelines which may be applicable as well as how the compliance of the relevant technical standards will be met.</p> <p><b>CAR4:</b> Please specify the national technical standards that need to be complied with (construction codes, permits, specific regulations, quality standards etc) and outline how the steps that the project will take to ensure compliance, as required by the ESP of the AF.</p>	<p><b>CAR4:</b> The technical standards and regulations relevant to the project interventions are revised under Section F as well as the project approach to ensure compliance.</p>
	8. Is there duplication of project / programme with other funding sources?	<p><b>No.</b></p>	

	<p>9. Does the project / programme have a learning and knowledge management component to capture and feedback lessons?</p>	<p><b>Partly.</b> The project activities have not been defined therefore specific KM activities are not stated. However, under Part under Part II section A, the proposal outputs indicate knowledge management as well as sharing of experience among the participating countries and across the region. (Outputs 1.2; 3.2; 4.1; 4.2). Additional information is provided under Part II at paragraphs 90-93 on how knowledge will be managed)</p> <p><b>CAR5:</b> Please include indicative knowledge management activities as well as activities related to the experience sharing and knowledge exchanges that are currently proposed under the relevant outputs.</p>	<p><b>CAR5:</b> Indicative activities were added under outcome 4 – see paragraphs 62 to 64. Section J was also revised to include more information on the knowledge management activities – see paragraphs 95 to 97.</p>
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	<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><b>Partly.</b></p> <p>Part II Section H, presents information on stakeholder engagement during the concept development including that particular attention to Environmental, Social and gender Risk policies. However, further information should be provided.</p> <p><b>CAR6:</b> Please provide more details on the stakeholder engagement process and amend table 8 to include a column that indicates the gender considerations which were followed as well as provide gender disaggregated consultation data if available.</p>	<p><b>CAR6:</b> Noted. Please see tables 8 and 9 where additional columns were added with information on participants and sex-disaggregated information.</p>
	<p>11. Is the requested financing justified on the basis of full cost of adaptation reasoning?</p>	<p><b>Unclear.</b></p> <p>Although the proposal demonstrates that the project could address its adaptation objectives at Part II Section I, there is a lack of clarity whether that it will be able to do so without additional funding. Part II Section A at paragraph 46, on page 18, the proposal indicates “Financial resources mobilized in Outcome 3 will support investment implementation and long-term sustainability.” Whereas Under Section C in Table 4 under the Economic column related to Outcome 3 it indicates “Bankable projects on NbS may attract investors, including Government”.</p>	<p><b>CAR7:</b> The project does not require additional resources to achieve project objectives. Activities under Outcome 3 will enhance the enabling conditions for local governments to access and mobilize additional funding for scaling-up of NbS interventions and operationalize the long-term ecosystem-based urban resilience strategies. See paragraph 103 for the clarification made.</p> <p>With reference to paragraph 50 (previously 46), the text was modified for clarity: “<i>Outcome 3 will support <b>up-scaling of NbS and long-term sustainability</b></i>”. This is to confirm that no additional resources will have to be mobilized for the</p>

		<p><b>CAR7:</b> Please clarify if additional resources which the project will try to mobilize is critical to the achievement of the projects objectives.</p>	<p>implementation of the project interventions to achieve the project results.</p> <p>The reference to the economic benefit in table 4, the text is adjusted for clarity <b>“Local government capacities to develop bankable projects on NbS are enhanced”</b> refers to activities envisioned under Output 3.1 which aims to enhance capacities of local governments to prepare project ideas to access climate finance and eventually result in bankable projects.</p>
	12. Is the project / program aligned with AF’s results framework?	<p><b>Partly.</b></p> <p><b>CR2:</b> Please amend the AF output indicator related to 1.1 to include “scale” for an accurate reflection of the AF output indicator.</p>	<p><b>CR2:</b> The text of indicator was corrected accordingly in Table 13.</p>
	13. Has the sustainability of the project/programme outcomes been taken into account when designing the project?	<p><b>Partly.</b></p> <p>Issues of maintenance of NbS installations have not been addressed and financial sustainability post project can be strengthened at Part 2 Section J.</p> <p><b>CAR8:</b> Please amend to address the issue of maintenance of NbS, including considering future climate impacts, and providing additional information on financial sustainability post project at Part 2 Section J.</p>	<p><b>CAR8:</b> The sustainability and maintenance of the NbS interventions will be ensured via the following key factors considered in the design of the proposal (see para 112 and 113 for further details):</p> <p><b>A. Maintenance:</b></p> <ul style="list-style-type: none"> <li>- <b>Build Local Capacity:</b> Under Output 2.2, the project will provide training and capacity-building programs to local stakeholders on NbS maintenance. This training will engage community members, municipal staff, volunteers, or local organizations, equipping them with the skills and knowledge needed to effectively manage and maintain NbS interventions.</li> </ul>

			<ul style="list-style-type: none"> <li>- <b>Promote Community Engagement:</b> Under Output 2.1 and 2.3, the project encourages community engagement and participation in NbS design and implementation activities enhancing community ownership and thus engagement in further maintenance activities.</li> <li>- <b>Integrate NbS into Urban Planning:</b> Under Output 1.3, the project will mainstream NbS into broader urban planning processes to ensure that budget and responsibilities for maintenance considerations are factored into citywide development plans and policies.</li> <li>- <b>Climate change impacts:</b> the potential climate impacts regarding the defined Nature-based Solutions (NbS) will be assessed during the project formulation stage. This analysis will incorporate worst-case scenarios to guide the optimal design of NbS interventions, accounting for potential impacts. Specific protocols for recovery will be established in the case of damage due to extreme events.</li> </ul> <p><b>B. Financial sustainability:</b></p> <ul style="list-style-type: none"> <li>- <b>Innovative funding mechanisms:</b> Under Output 3.1 and 3.2, the project will support local governments in (i) identifying innovative financing mechanisms for NbS interventions and (ii) enhance capacities of technical staff for the formulation of</li> </ul>
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			<p>funding proposals. Both outputs aim to mobilize finance to support NbS maintenance over the long term. This may involve leveraging public funds, securing grants or donations, establishing user fees or levies, or exploring innovative financing models. This will be strengthened with the mainstreaming of NbS in urban policy instruments.</p> <p>- <b>Engagement of the private sector:</b> Under Output 3.3, the project will engage private sector actors and seek partnerships that can provide financial support through direct investments in NbS projects. This may involve funding the implementation and maintenance of NbS interventions in urban areas.</p>
	<p>14. Does the project / programme provide an overview of environmental and social impacts / risks identified, in compliance with the Environmental and Social Policy and Gender Policy of the Fund?</p>	<p><b>Partly.</b> Part II Section K contains table 11 which presents an overview of environmental and social risks. However</p> <ol style="list-style-type: none"> <li>1. The project risk category is not provided.</li> <li>2. Additionally, on “Compliance with the Law”- the table indicates that no further assessment is required. However, there is a possibility that new legislation may be passed in one or more of the participating countries and allowance must be made for</li> </ol>	<p><b>CAR9:</b> Noted. The following information is included and Table 11 is revised accordingly.</p> <ol style="list-style-type: none"> <li>1. The project is not expected to result in any adverse environmental or social impacts and the risk level in an ESS screening is category C. During the project formulation phase, once there is more information on the project activities the screening tool will be run again and any moderate or high-risk areas will be carefully matched with a mitigation plan.</li> </ol>

		<p>this assessment if the need arises.</p> <p>3. On “Gender Equity and Women’s Empowerment” the table indicates that “The project proposal has been designed to be gender responsive and where possible gender transformative by creating tailored opportunities responding to the needs and priorities of men and women, equal benefits and decent green jobs opportunities.” However, this is not adequately reflected in the proposal particularly in the absence of an initial gender analysis. Please note that the risk assessment should reflect the potential risks and impacts of the current context, without including mitigation measures by the projects.</p> <p><b>CAR9:</b></p> <ol style="list-style-type: none"> <li>1. Please include a risk category for the project.</li> <li>2. Please revise risk statements for all principle to ensure they reflect the current risks before the project mitigation measures.</li> <li>3. Please make allowance for possible new legislation that the proposal may be subject to.</li> </ol>	<ol style="list-style-type: none"> <li>2. The statements are revised accordingly.</li> <li>3. Compliance with the Law: the clarification was included: “<i>The possibility that new relevant legislation may be passed in one or more of the participating countries may require further policy assessment. The AE will closely coordinate with countries’ governments to ensure that any envisioned policy change relevant to the implementation for the project will be timely communicated to inform the project design.</i>”</li> <li>4. Gender Equity and Women’s Empowerment: The CAR2 is addressed and throughout the proposal it can be observed specific reference to gender-responsive actions including, among others: <ul style="list-style-type: none"> <li>• <b><u>Output 1.1</u></b> <i>Urban climate services and decision-support tools are developed and tested to guide urban planning processes and regulatory frameworks: [...] information will be transformed into user-friendly urban climate services, including participatory, <b>gender-responsive vulnerability and risk assessments</b> and hydrological impact modelling to address floods and water access in cities.</i></li> <li>• <b><u>Output 1.2</u></b> <i>National Dialogues “Urban NbS for Resilience” facilitated the coordination and collaboration of diverse actors facilitated:</i></li> </ul> </li> </ol>
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		4. Please strengthen gender equity and Women's empowerment throughout the proposal after addressing CAR2 above.	<p>The Dialogues will bring together representatives from the local and national government institutions <b>focusing on engaging of women representatives</b> to enhance the climate action agenda in Honduras, El Salvador y Guatemala</p> <ul style="list-style-type: none"> <li>• <b>Output 2.1 Ecosystem-based urban adaptation strategies are co-designed for nine cities with a gender-responsive and socially inclusive approach:</b> <ul style="list-style-type: none"> <li>· <b>Organize inclusive workshops to co-create</b> ecosystem-based urban adaptation strategies in the nine cities;</li> <li>· Organize workshops with local stakeholders to <b>co-design a set of gender responsive NbS interventions</b> for climate risk reduction for the nine cities.</li> </ul> </li> </ul>
	15. Does the project promote new and innovative solutions to climate change adaptation, such as new approaches, technologies and mechanisms?	<b>Yes.</b> As per information provided under Part II section A para 31-32 including "provide diverse experiences and solutions for adapting to the climate impacts in urban settings"; as well as the elements of component 3 which is entitled "Municipalities are accessing innovative adaptation financing and mobilizing investments from the private sector in NbS for urban resilience"	
Resource Availability	1. Is the requested project / programme funding within the funding windows of	<b>Yes.</b>	



	the regional projects/programmes?		
	2. Are the administrative costs (Implementing Entity Management Fee and Project/ Programme Execution Costs) at or below 10 per cent of the project/programme for implementing entity (IE) fees and at or below 10 per cent of the project/programme cost for the execution costs?	<b>Yes.</b>	
Eligibility of IE	1. Is the project/programme submitted through an eligible Multilateral or Regional Implementing Entity that has been accredited by the Board?	<b>Yes.</b>	

Implementation Arrangements	1. Is there adequate arrangement for project / programme management at the regional and national level, including coordination arrangements within countries and among them? Has the potential to partner with national institutions, and when possible, national implementing entities (NIEs), been considered, and included in the management arrangements?	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? Proponents are encouraged to refer to the Guidance document for Implementing Entities on compliance with the Adaptation Fund Environmental and Social Policy, for details.	n/a at concept stage	
	4. Is a budget on the Implementing Entity Management Fee use included?	n/a at concept stage	
	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 outcome indicator from the Fund's results framework?	n/a at concept stage	
	10. Is a disbursement schedule with time-bound milestones included?	n/a at concept stage	



# CONCEPT NOTE FOR REGIONAL PROJECT/PROGRAMME

## PART I: PROJECT/PROGRAMME INFORMATION

**Title of Project/Programme:** Building Resilience of Urban Communities in Central America by Leveraging Nature-based Solutions (NbS) for Adaptation

**Countries:** Honduras, El Salvador, Guatemala

**Thematic Focal Area<sup>1</sup>:** Disaster risk reduction and early warning systems

**Type of Implementing Entity:** Multilateral Implementing Entity

**Implementing Entity:** United Nations Environment Programme (UNEP)

**Executing Entities:** Ministry of Environment and Natural Resources, El Salvador  
Ministry of Environment and Natural Resources, Guatemala  
Secretary of Natural Resources and Environment, Honduras

**Amount of Financing Requested:** 14,000,000 (in U.S Dollars Equivalent)

**Project Formulation Grant Request:** Yes  No

**Amount of Requested financing for PFG:** 80,000 (in U.S Dollars Equivalent)

**Letters of Endorsement (LOE) signed for all countries:** 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 proposal has been submitted before including at a different stage (pre-concept, concept)
- This is the first submission ever of the proposal at any stage

In case of a resubmission, please indicate the last submission date: 1/9/2023

**Please note that the Concept note proposal document should not exceed 50 pages, including annexes.**

<sup>1</sup> Thematic areas are: Food security; Disaster risk reduction and early warning systems; Transboundary water management; Innovation in adaptation finance.

## Project/Programme Background and Context:

### Socio-economic context in cities in Central America

1. Countries in Central America are undergoing an important transition, with urban populations increasing at an accelerated speed, especially in intermediate cities, bringing pressing challenges and opportunities to boost sustained, inclusive, and resilient growth.<sup>1</sup> Central America is one of the most urbanized regions in the world, with the second-fastest rate of urbanization.<sup>2</sup> At present, 59 percent of Central America's population lives in urban areas; within a generation, the population is projected to grow to 70 percent, and to double by 2050<sup>3</sup>, welcoming over 25 million new urban dwellers, calling for better infrastructure, higher coverage and quality of urban services and greater employment opportunities within a climate change context.<sup>4</sup>



*Figure 1. Map of project countries in Central America – Honduras, El Salvador and Guatemala*

2. Urban sprawl into surrounding landscapes leads to the degradation of ecosystems, resulting in a significant decrease in the provision of essential ecosystem services. These services include flood regulation, water quality and quantity regulation, and the preservation of biodiversity, among others.
3. Poverty and inequalities are major challenges in cities in Central America. The region is among the most unequal regions, with Gini coefficients of 38.8 in El Salvador, 48.2 in Honduras, and 48.3 in Guatemala<sup>5</sup>, disproportionately affecting indigenous populations.<sup>6</sup>
4. Climate change-related hazards, including droughts, floods, and storms characteristic of the region, can drive people out of the countryside and into urban areas,<sup>7</sup> where they often land in informal settlements that tend to be those most affected by organized crime, least served by urban planning and city services, and vulnerable to further climate hazards like flooding or landslides.

### Climate context

5. The latest Intergovernmental Panel on Climate Change Assessment Report (IPCC - AR6, 2022) identifies Central America as the most sensitive tropical region to climate change.<sup>8</sup> As such, Guatemala, Honduras, and El Salvador face common challenges regarding climate change impacts in their territories. Cities in Honduras, Guatemala, and El Salvador are highly vulnerable to climate change impacts due to unplanned and rapid urban expansion, where planning and infrastructure development have not integrated climate risk aspects.

<sup>2</sup> Maria et al., 2017. *Central America Urbanization Review: Making Cities Work for Central America*

<sup>3</sup> Ibid.

<sup>4</sup> World Bank, 2016, *Central America Urbanization Review - Making Cities Work for Central America*

<sup>5</sup> World Bank, 2019. World Bank. (2019b). "Gini index (World Bank estimate) - El Salvador, Guatemala, Honduras."

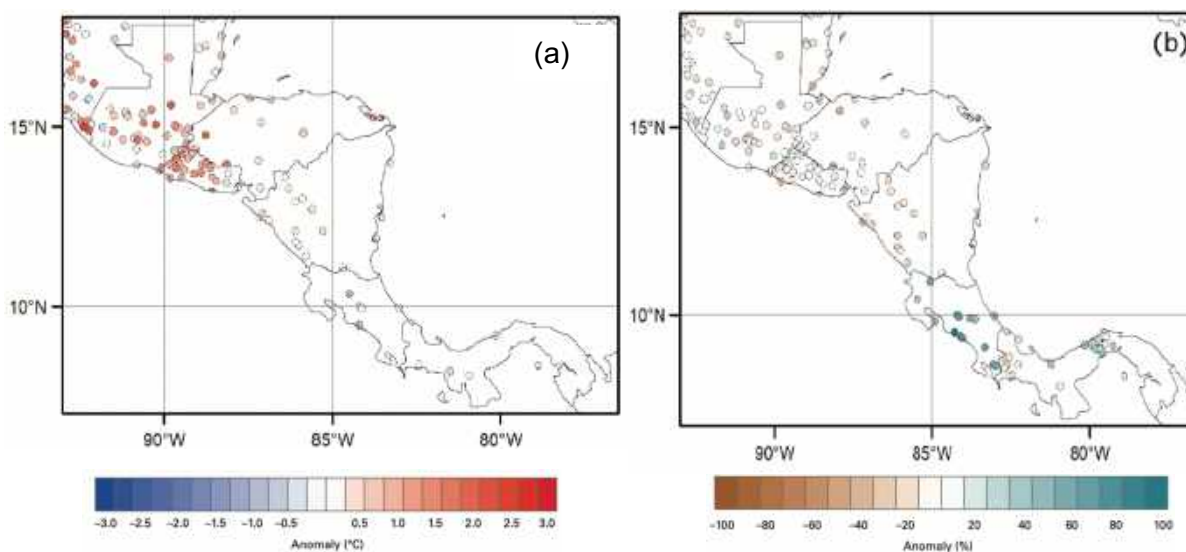
<sup>6</sup> BCIE, 2020. BCIE, 2020: *Centroamérica en Cifras*. Banco Centroamericano de Integración Económica, Tegucigalpa, Honduras, 34 pp. Available at: <https://www.bcie.org/novedades/publicaciones/publicacion/centroamerica-en-cifras>

<sup>7</sup> Clement, V., Rigaud, K. K., De Sherbinin, A., Jones, B., Adamo, S., Schewe, J., ... Shabahat, E. (2021). Groundswell Part 2: Acting on internal climate migration. *World Bank*, 1–362.

<sup>8</sup> IPCC, 2022. Sixth Assessment Report: Impacts, Adaptation and Vulnerability. <https://www.ipcc.ch/report/sixth-assessment-report-working-group-ii/>

## Observed climate trends

**Temperature and precipitation:** Past climate trends in the project countries show climate changes in several ways, including i) an increase in temperature and ii) shifting rainfall patterns and anomalies. The average rate of temperature increase in the region was around 0.2 °C per decade between 1991 and 2021, compared to 0.1 °C per decade between 1961 and 1999. Anomalies of +1 °C to +3 °C were recorded in Guatemala, Honduras, and El Salvador, while rainfall anomalies ranged from 50% below normal to 20% above normal.<sup>9</sup> In most parts of the region, wet seasons are shortening while the intensity of midsummer droughts is increasing. Droughts that extend over a year or more are also becoming increasingly frequent and severe, mainly because of the increasing frequency and intensity of El Niño events. Concurrently, extreme rainfall events are increasing in frequency and severity because of changes in La Niña. Figure 2 shows the temperature and rainfall anomalies in the region during 2021.



**Figure 2.** Temperature and rainfall anomalies in Central America: (a) Air temperature (2 m) anomalies for 2021 (relative to 1981–2010) and (b) Rainfall anomalies for 2021 (% with respect to the 1981–2010 reference period) in Central America. Source: WMO, 2022.<sup>10</sup>

- Climate risks and impacts:** Central America's location makes it remarkably prone to extreme hydrometeorological events. Key climate hazards affecting the urban areas in the nine project cities include floods, landslides, and drought. In the last three decades, the economic losses due to climate change have accounted for USD 5.7 billion in Honduras, USD 3.5 billion in Guatemala, and USD 2.2 billion in El Salvador, with infrastructure and agriculture being the most affected sectors.<sup>11</sup> If ambitious and immediate measures are not implemented, these losses could account for between 5.8% and 9% of the national GDP of these countries.<sup>12</sup>
- Recent climate extreme events include the 2014 - 2016 droughts and the flooding following Hurricanes Eta and Iota that hit Central America within two weeks in 2020. The latter affected 7.5 million people and destroyed over 700,000 ha of crops, devastatingly affecting farmers' livelihoods in El Salvador, Guatemala, and Honduras, impacting their food security, and encouraging migration often to nearby intermediate cities. In Honduras alone, over 3 million

<sup>9</sup> WMO, 2022. State of the Climate in Latin America and the Caribbean 2021.

<sup>10</sup> WMO, 2022. Idem.

<sup>11</sup> WFP 2017. Food security and emigration. Why people flee and the impact on family members left behind in El Salvador, Guatemala and Honduras

<sup>12</sup> WFP, 2017. Idem.

people are suffering from food insecurity, and 2.8 million people still need humanitarian assistance. In 2020, at least 1.5 million people were displaced in Central America because of disasters (including Hurricanes Eta and Iota): 937,000 in Honduras and 339,000 in Guatemala.<sup>13</sup> Table 1 summarizes the past extreme climate events and their impacts in project countries.

**Table 1. Past climate extreme events in the three countries and selected cities between 2005 – 2022**  
(Source: EM-DAT, CRED / UCLouvain, Brussels, Belgium)

<b>Honduras</b>			
Droughts	2009, 2011, 2015, 2018, 2019	2,690, 000	-
Floods	2008, 2010, 2011, 2014, 2018, 2020, 2022	1,003,000	45,000,000
Storms	2005, 2008, 2010, 2016,2017, 2020	5,438,000	303,150,000
<b>Guatemala</b>			
Droughts	2009, 2012, 2014, 2016	5,566,000	175,000,000
Floods	2005, 2007, 2011, 2016, 2017, 2020, 2022	3,867,000	284,000,000
Storms	2005, 2007, 2011, 2016, 2017, 2020	4,370,000	2,790,000,000
<b>El Salvador</b>			
Droughts	2009, 2014, 2018	108,000,000	203,500,000
Floods	2005, 2007, 2011, 2016, 2017, 2020	313,000	-
Storms	2005, 2007, 2011, 2016, 2017, 2020	356,000	2,106,000,000

8. *Floods and storm surges*: The impervious areas in cities have increased the frequency of flood occurrence, primarily by replacing land-cover types that would convert a greater proportion of precipitation to infiltration.<sup>14</sup> Major rain events occurring in urban areas in Honduras, El Salvador y Guatemala with large impervious areas is the primary source of urban flooding, causing enormous losses of property and life. This type of flooding, known as pluvial flooding, occurs because rates of precipitation exceed the capacity of natural and engineered drainage systems to store rainwater or convey it safely away from buildings and people.<sup>15</sup> The coupling of intensifying storm events driven by climate change and increasing areas of impervious surfaces is exacerbating urban pluvial floods.<sup>16</sup> Evidence shows that floods and storm surges occurring in intermediate cities are affecting a higher percentage of the population and area, compared to bigger cities.<sup>17</sup> This is often due to the lack of the capacity for risk-informed urban planning and the financial resources to invest in resilient infrastructure. In Honduras and Guatemala, during the La Niña periods, cities are impacted by increasing tropical storms, whereas during the dry season, intensified with El Niño, water scarcity, and shortages increase, threatening several

<sup>13</sup> International Federation of Red Cross and Red Crescent Societies (IFRC) 2021. Press Release: <https://www.ifrc.org/press-release/communities-affected-hurricanes-eta-and-iota-are-threatened-food-insecurity>

<sup>14</sup> Cutter, Emrich, Gall, & Reeves, 2018. Flash Flood Risk and the Paradox of Urban Development. Natural Hazards Review Vol.19

<sup>15</sup> Rosenzweig et al., 2018. *Climate Change and Cities: Second Assessment Report of the Urban Climate Change Research Network*

<sup>16</sup> Dong et al., 2020. Vulnerability of urban water infrastructures to climate change at city level. Resources, Conservation and Recycling

<sup>17</sup> UN-Habitat, 2022.



sectors and water provision at the city level. During the flooding period, the countries have seen population migration from flooded areas to cities or higher lands.<sup>18</sup> All the above increase social vulnerability due to climate change and variability.

### **Projected climate trends**

9. The region is regularly affected by ENSO (El Niño Southern Oscillation) events, drought, cyclones, and intense rainfall.<sup>19</sup> Central America's long coastlines increase its climate exposure, with the Caribbean coast of Honduras particularly vulnerable to sea level rise, storm surge and coastal erosion. By the mid-century, the main climate impacts in the region will include significant heat waves<sup>20</sup>; increased intensity and frequency of tropical cyclones<sup>21</sup>, relative sea level rise, coastal flooding, aridity, and droughts.
10. Temperature: According to future estimations by IPCC AR6 (2022), it is *virtually certain* that warming will continue in Central America, and there is *high confidence* that, by the end of the century, the region will undergo extreme heat stress much more often than in recent past (e.g., increase of dangerous heat with HI > 41°C, or Tx > 35°C) with more than 200 additional days per year under SSP5-8.5, while such conditions will be met typically 50–100 more days per year under SSP1-2.6 over the same regions. Cold spells and frost days decreased (*high confidence*). While the trend of temperature increase is consistent across Central America, the magnitude of change is expected to vary among countries and between geographical areas within countries (Figure 3).
11. Precipitation: Mean annual rainfall is projected to decrease across much of Central America by 2070 for RCP4.5 and RCP8.5. In addition to the predicted future trends in mean annual temperature and rainfall, extreme temperatures are predicted to increase in the coming decades (Figure 4). In addition, although rainfall in the region is expected to decrease by 11% on average by the end of the century, extreme rainfall is predicted to increase significantly across parts of the region by mid-century. The number of intense rainfall events<sup>22</sup> and extremely intense rainfall events<sup>23</sup> occurring each year is predicted to increase (Figure 5).
12. Droughts and water stress in cities: Droughts increasingly affect water scarcity in urban areas. Urban areas in arid, semi-arid, and humid regions, where the cities of El Salvador, Honduras y Guatemala are located, are more susceptible to droughts. Climate change exacerbates the frequency and extent of droughts and makes it harder for cities to cope with water scarcity since it tends to deplete commonly used water reservoirs such as dams. At the same time, while cities are experiencing increasing droughts and higher temperatures, they also face higher demand for water due to rising urbanization and increasing economic activities.<sup>24</sup> Droughts and water stress cause health and economic risks, especially in cities of low and middle-income countries. They can cause public health issues such as diarrhoeal diseases, especially among children, and lead to the faster spread of diseases, especially in densely populated areas with low water and sanitation services. Droughts can also cause food insecurity and are associated with economic and welfare loss. A study of 78 Latin American cities between 2005 and 2014

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<sup>18</sup> Honduras National Adaptation Plan 2018.

<sup>19</sup> IPCC 2022. "Regional fact sheet – Central and South America." Sixth Assessment Report, Working Group I.

<sup>20</sup> IPCC 2022. *Climate Change 2022: Impacts, Adaptation, and Vulnerability*. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change.

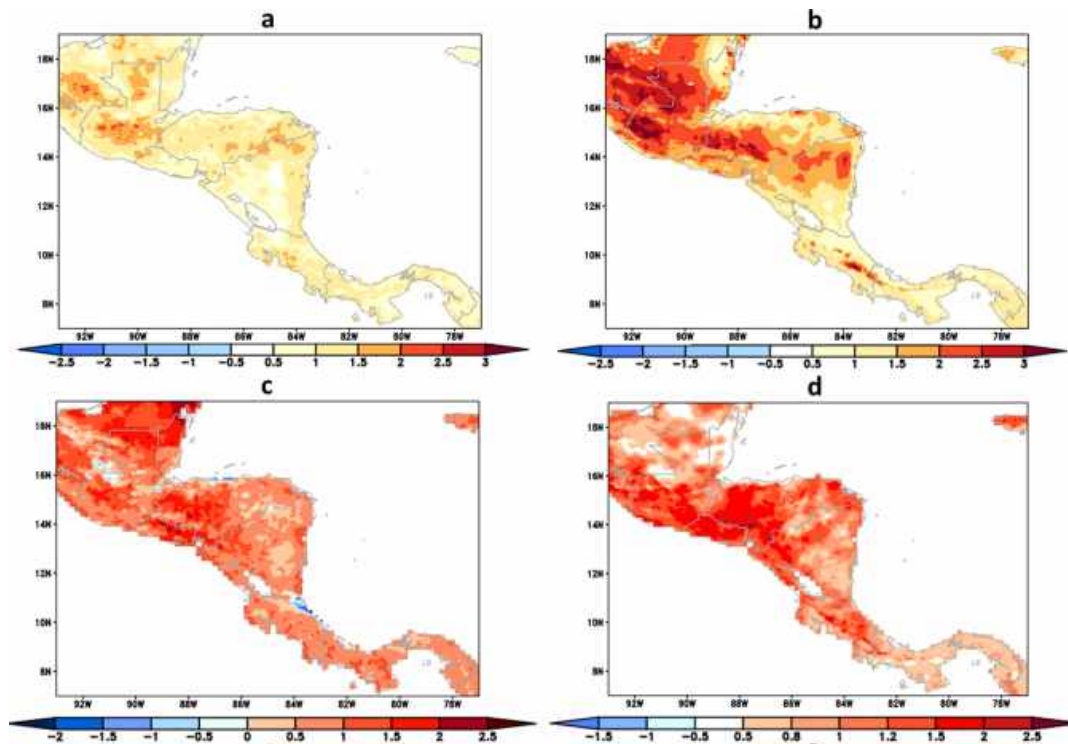
<sup>21</sup> IPCC 2022. Climate Change Information for Regional Impact and for Risk Assessment. In: *Climate Change 2022: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*.

<sup>22</sup> Heavy rainfall events are defined as those in which rainfall reaches 50 mm per day.

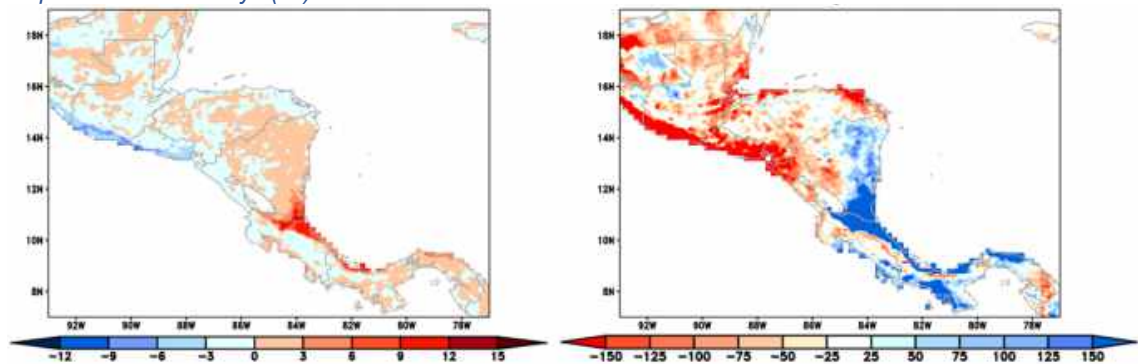
<sup>23</sup> Extremely heavy rainfall events are defined as those in which rainfall exceeds 50 mm per day.

<sup>24</sup> Flörke, M., C. Schneider and R. McDonald (2018), "Water competition between cities and agriculture driven by climate change and urban growth", *Nature Sustainability*, Vol. 1/1, pp. 51-58

concluded that droughts lead to a decline in employment and number of working hours and negatively impact informal employment.<sup>25</sup>

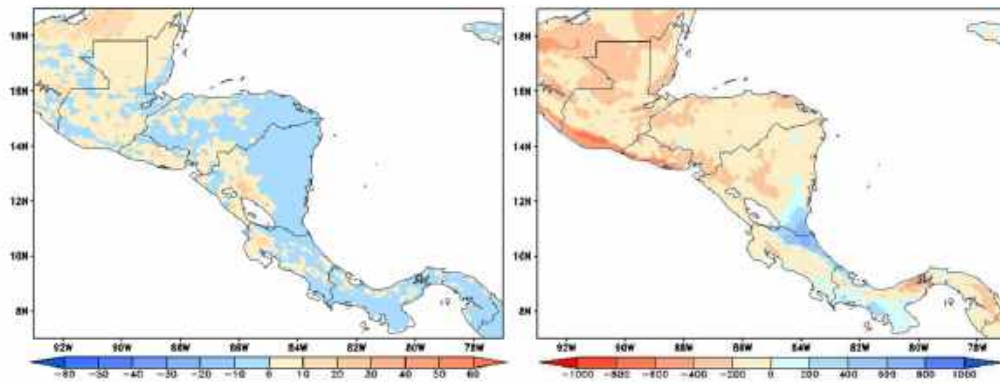


**Figure 3.** Projected trends of extreme temperature indicators for Central America over the period 2021–2050, namely: a) TNx – temperature of warm nights (°C); b) TXx – temperature of warm days (°C); c) TNn – temperature of cold nights (°C); d) TXn – temperature of cold days (°C).



**Figure 4.** Projected trends of extreme rainfall indicators for Central America over the period 2021–2050, namely: i) R50mm (days) – heavy rainfall events, where rainfall exceeds 50 mm/day (left); and ii) R90p (mm) – extreme (90th percentile) of rainfall (right).

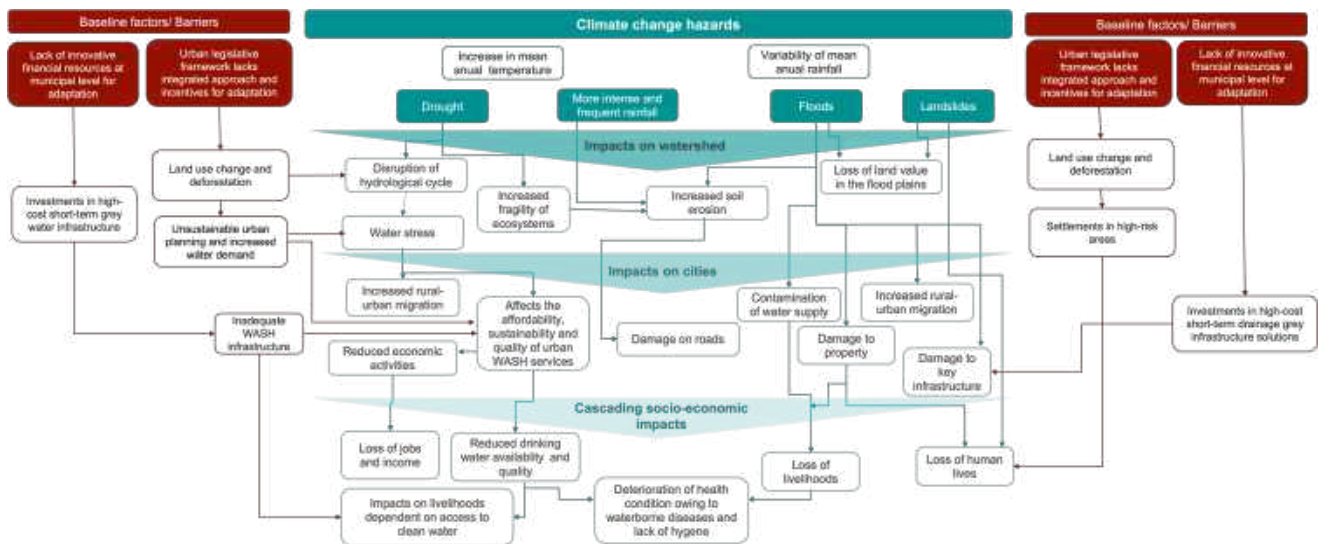
<sup>25</sup> Desbureaux, S. and A. Rodella 2019. Drought in the city: The economic impact of water scarcity in Latin American metropolitan areas, *World Development*, Vol. 114.



**Figure 5.** Projected trends of drought indicators for Central America over the period 2021–2050, namely: i) dry spells, defined as annual largest number of consecutive days when  $ET \leq 0.5 \cdot ETP$  (left); and ii) annual P-ETP in (mm per year, right).

13. The exposure to climate hazards, such as fluvial flooding, urban flooding, coastal flooding and heat waves, extreme rainfall, and storms, combined with rapid urbanization and lack of climate-sensitive planning, has taken a toll on urban communities, including marginalized urban populations, infrastructure, and services.<sup>26</sup> Climate change causes a cascade of impacts at different scales, including watershed, urban, and socio-economic scales. Key direct and indirect impacts include: i) reduced access to food supplies or high prices of food resulting in food insecurity; ii) disrupted access to basic services such as water and sanitation; iii) decreased water quality as a result of increasing pollution in rivers and other waterways; iv) damage on critical infrastructure such bridges, highways, hospitals, etc.; and v) loss of lives and livelihoods, vi) health impacts, among others. Ecosystem degradation and the consequent threats to the well-being of urban communities in the region will be exacerbated by the negative effects of climate change. Figure 3 shows the climate impact chain with cascading impacts.
14. The climate change impact chain in Figure 6 outlines the complexity of cascading impacts at different scales affecting the urban system. Climate change drivers, such as rising temperatures and altered precipitation patterns, affect watersheds by influencing the hydrological cycle. In response, watersheds experience changes in streamflow, groundwater recharge, and water quality, including increased runoff during heavy rainfall and reduced flow during droughts. These climate impacts can disrupt natural ecosystems within the watershed. Moreover, changes in water availability and quality have cascading effects, potentially impacting water supply for downstream cities and regions. Such impacts at city scales can have significant economic repercussions, including damage to infrastructure, increased healthcare costs, reduced drinking water availability, among others. Climate change has unique and differentiated impacts on women living in cities in Central America.

<sup>26</sup> IPCC 2022. *Climate Change 2022: Impacts, Adaptation, and Vulnerability*. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change.



**Figure 6.** Climate change impact chain for urban populations and their surrounding ecosystems and watersheds (Source: Adapted from IPCC, 2022 AR6).

### Gender analysis

15. The over-representation of women in poor households is a well-documented reality in Latin America and the Caribbean region<sup>27</sup> and acts as a barrier to achieving the 2030 Agenda by limiting women’s economic, physical, and decision-making autonomy. Evidence suggests that women bear a disproportionate burden of the impacts of climate change and disasters, attributed to existing gender roles and inequalities.<sup>28</sup> These conditions of inequality are more evident during times of crisis and for women that spend most of her time at home in unpaid care work, 21% of the time in Guatemala’s women life for example<sup>29</sup>, including direct care and domestic tasks. Additionally, domestic violence, forced marriage, human trafficking, and forced prostitution are also more likely to occur during disasters.
16. Women in urban areas often face heightened vulnerabilities as they tend to be more reliant on public services and infrastructure, which are susceptible to climate-related disruptions. Increased frequency of extreme weather events, such as hurricanes and floods, can disproportionately affect women due to their roles as caregivers and providers within households. Information gathered by the local coordinators for disaster reduction in Guatemala’s Department shows that almost 65% the people affected (1286) by climate disasters are women. Women may also have limited access to resources, making it harder to adapt to changing climate conditions. Moreover, urban women in Central America are often engaged in the informal economy, making them more economically precarious and susceptible to livelihood disruptions caused by climate change. Women and girls are more socially vulnerable, because they experiment extreme levels of poverty: of more than a billion people living in the deepest levels of poverty, women are considered the majority<sup>30</sup>. However, it should be recognized that there is insufficient sex-disaggregated information regarding the specific climate impacts and needs of women, children, and men in urban areas compared to rural areas.

<sup>27</sup> According to ECLAC estimates, for every 100 poor men in the LAC region there are 113 poor women (circa, 2019). Information available at: [oig.cepal.org/en/indicators/feminity-index-poor-households](http://oig.cepal.org/en/indicators/feminity-index-poor-households).

<sup>28</sup> IPCC (2022). Climate Change 2022: Impacts, Adaptation and Vulnerability.

<sup>29</sup> Encuesta Nacional de Empleo e Ingresos. (2022). INE. <https://www.ine.gob.gt/encuesta-nacional-de-empleo-e-ingresos/#:~:text=Encuesta%20Nacional%20de%20Empleo%20e%20Ingresos%202022&text=La%20ENEL%202022%2C%20de%20acuerdo,09%20de%20diciembre%20de%202022>

<sup>30</sup> Género y medio ambiente: un análisis preliminar de brechas y oportunidades en América Latina y el Caribe. (2021). Programa de las Naciones Unidas Para el Medio Ambiente. [https://wedocs.unep.org/bitstream/handle/20.500.11822/34929/GEN\\_ES.pdf?sequence=2&isAllowed=y](https://wedocs.unep.org/bitstream/handle/20.500.11822/34929/GEN_ES.pdf?sequence=2&isAllowed=y)

17. Concurrently, women exhibit significant influence as environmental stewards, owing to their distinct connection with the environment and their efforts in conserving and sustainably managing natural resources within rural and urban settings. Nevertheless, women encounter disparities in accessing and controlling natural resources. They often lack recognition as pertinent stakeholders and are inadequately represented in decision-making processes related to the conservation and sustainable management of natural resources, for example, in Guatemala only the 19% of seats, 27% in Honduras and El Salvador, are occupied by women in the National Parliament<sup>31</sup>. The difference between women and men can be expressed in numbers: for example, in land tenure, less than 20 per cent of all landowners are women at a global level, as well as, only in 28 countries, women have the same legal rights as men to own and access land.<sup>32</sup>
18. These gender-specific challenges underscore the urgency of gender-responsive climate policies and initiatives to address the differentiated impacts on women and promote resilience in urban settings, which will be considered in the project.

### Project sites

19. Identifying the project cities was based on a prioritization exercise in close collaboration with the national governments in Honduras, El Salvador, and Guatemala. The project addresses risks from extreme hydrometeorological events, including floods, storms, and droughts. The selection criteria for cities included:
  - **Level of climate vulnerability and risks:** Cities with high climate vulnerability and exposure to risks from extreme hydrometeorological events. Focusing on cities with low adaptive capacity and high sensitivity of ecosystems and infrastructure critical for the urban population and their livelihoods.
  - **Existing initiatives on ecosystem-based urban adaptation** – Analysis of current and planned initiatives relevant to urban planning and the role of ecosystems for resilience building.
20. Based on the above criteria, the project selected the following nine cities: **(i) El Salvador:** Metropolitan Area of San Salvador, San Miguel, and La Libertad; **(ii) Honduras:** La Lima, Choloma, and Puerto Cortes and **(iii) Guatemala:** Ciudad de Guatemala, Escuintla and Port San Jose. Figure 7 shows the location of the cities, and Table 2 summarizes the socio-economic and ecological context of the nine cities.

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<sup>31</sup> World Bank Open Data. (2022). World Bank Open Data.  
<https://datos.bancomundial.org/indicador/SG.GEN.PARL.ZS>

<sup>32</sup> Género y medio ambiente: un análisis preliminar de brechas y oportunidades en América Latina y el Caribe. (2021). Programa de las Naciones Unidas Para el Medio Ambiente.  
[https://wedocs.unep.org/bitstream/handle/20.500.11822/34929/GEN\\_ES.pdf?sequence=2&isAllowed=y](https://wedocs.unep.org/bitstream/handle/20.500.11822/34929/GEN_ES.pdf?sequence=2&isAllowed=y)



Figure 7. Map of selected cities in (a) El Salvador, (b) Guatemala, and (c) Honduras.

Table 2. Selected cities' overview on socioeconomic context and climate risks (Source: ThinkHazard).

Selected cities	Socio-economic context			Climate hazards <sup>33</sup>		
	Population (Year)	Annual growth rate	Poverty rate	Flooding	Water shortage	Land slides
<b>Honduras</b>						
La Lima <sup>34,35</sup>	84,102 (2020)	1,18%	35%	high	low	low
Choloma <sup>36</sup>	262,186 (2022)	5,54%	44,8%	high	low	high
Puerto Cortés <sup>37</sup>	140,229 (2022)	2,8%	44,4%	high	low	low
<b>El Salvador</b>						
San Salvador Metropolitan Area <sup>38</sup>	1,809,087 (2020)	1,38%	20,47%	high	medium	high
San Miguel <sup>39</sup>	65,921 (2017)	n/a	30,6%	high	medium	high
La Libertad <sup>40</sup>	53,321 (2017)	0,43%	41,7%	high	medium	high
<b>Guatemala</b>						
Guatemala City Metropolitan <sup>41</sup>	3,052,521 (2021)	0,13%	33,3%	high	high	medium
Escuintla	156,313 (2018)	3,84%	52,9%	high	high	medium
Port San Jose	23,887 (2018)	2,03%	52,9%	high	high	medium

Root causes for climate vulnerability in urban areas

21. The combination of rising vulnerability and increasing exposure translates to a growth in the number of people and properties at risk from climate change in the cities in the region.
22. **Rapid urbanization in high-risk areas.** A combination of economic, social, and environmental factors drives rapid urbanization in Central American cities. Some of the key drivers include:
  - *Rural-to-Urban migration:* Rural populations often migrate to cities for better economic opportunities, improved access to education and healthcare, and escape from rural poverty.

<sup>33</sup> ThinkHazard: <https://thinkhazard.org>

<sup>34</sup> Municipal Plan for Risk Management for Lima, Honduras, 2017

<sup>35</sup> Interviews with local stakeholders

<sup>36</sup> Perfil Demográfico de Choloma, Cortés 2022. Instituto de Investigaciones Económicas y Sociales. Universidad Nacional Autónoma de Honduras.

<sup>37</sup> Perfil Demográfico de Puerto Cortés, Cortés 2022. Instituto de Investigaciones Económicas y Sociales. Universidad Nacional Autónoma de Honduras.

<sup>38</sup> Esquema director AMSS, 2017

<sup>39</sup> Plan de desarrollo territorial de la subregión de San Miguel, Volumen 2 Diagnóstico Integrado.

<sup>40</sup> Plan Estratégico Participativo PEP, Diagnóstico del Municipio de La Libertad.

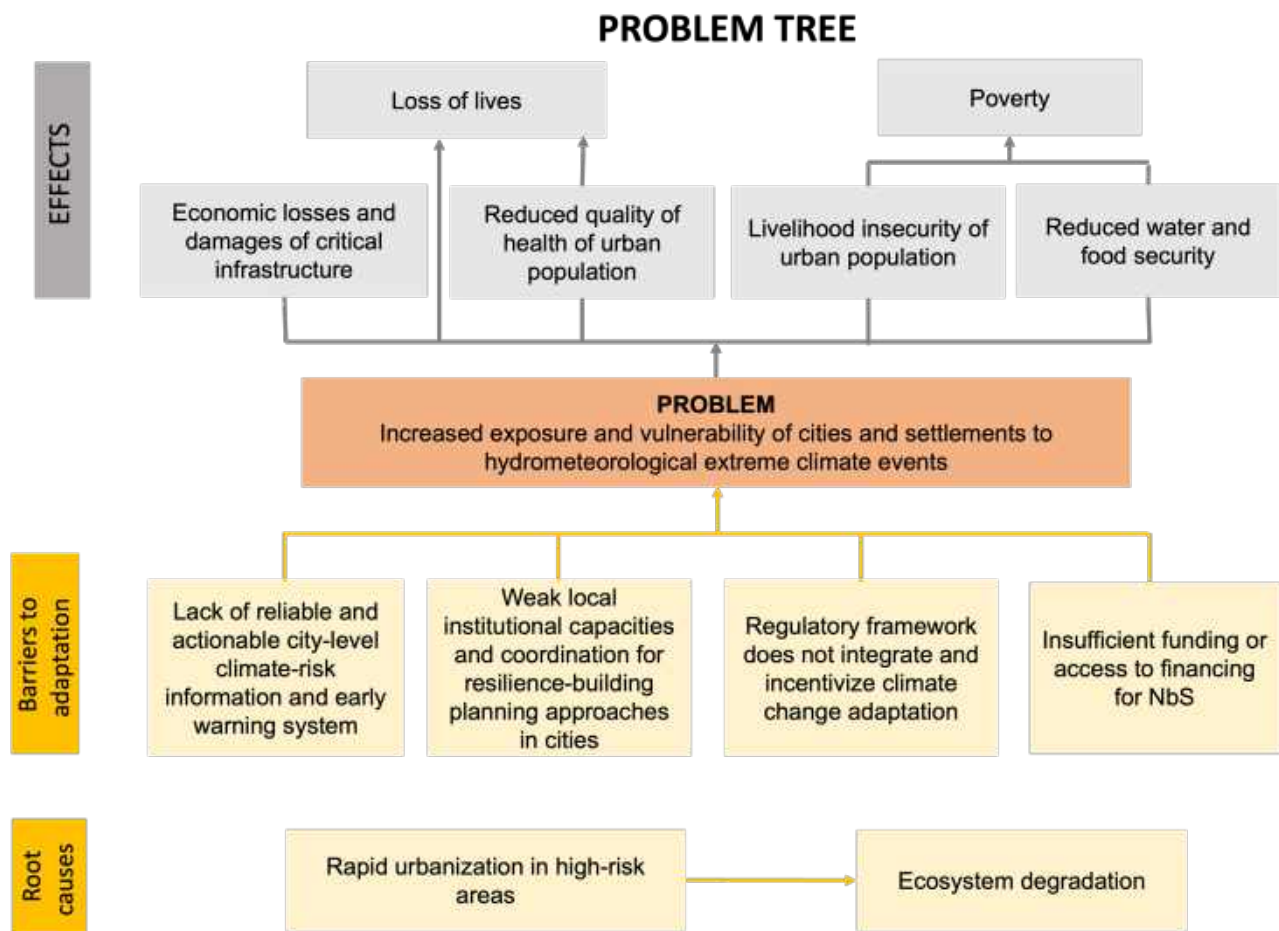
<sup>41</sup> [https://www.copresam.gob.gt/wp-content/uploads/2022/04/GUIA\\_PARA\\_LA\\_IMPLEMENTACION\\_DEL\\_PDM-OT\\_EN\\_GUATEMALA-1.pdf](https://www.copresam.gob.gt/wp-content/uploads/2022/04/GUIA_PARA_LA_IMPLEMENTACION_DEL_PDM-OT_EN_GUATEMALA-1.pdf)

- *Economic development:* Central American countries are undergoing industrialization and economic development, leading to the growth of manufacturing and service sectors in urban areas. These sectors create jobs and pull people into cities in search of employment.
- *Climate change and disasters:* Central American cities are susceptible to climate-related challenges, including hurricanes, floods, and droughts. These events have displaced rural populations, forcing them to seek refuge in urban areas, primarily if their livelihoods depend heavily on agriculture.
- *Housing Availability:* Affordable housing in high-risk urban areas can be a driving factor. Rapid urbanization sometimes leads to informal settlements in these areas due to the lack of formal housing options, drawing people with limited alternatives.

23. **Ecosystem degradation in and around cities.** The unplanned urban growth leads to unsustainable use of resources in medium-sized cities in the region and thus to the degradation of urban and peri-urban ecosystems and a decline in the provision of ecosystem services. The effects of such ecosystem degradation include: i) reduced water infiltration by removal of vegetation and catchment hardening, which leads to reduced groundwater availability and increased flooding; ii) increased soil erosion as a result of reduced forest and wetlands through urban expansion; iii) decreased water quality as a result of increasing pollution in rivers and other waterways; iv) increase in urban heat wave and reduction of ecosystems connectivity; and v) decrease in access to potable water, among others. These effects threaten urban communities' lives and well-being, reducing food and water security.

#### **Problem statement and main barriers to the adoption of effective urban adaptation planning in the Central American region**

24. Under the described context, cities in Central America are becoming poles of population concentration, environmental degradation, and loss of ecosystem services that, in turn, generate increasing levels of climate vulnerability and exposure for urban communities and economic assets. Poorly planned urbanization, in combination with climate change, puts great pressure on ecosystems, urban communities, and critical infrastructure, thus increasing the vulnerability of cities and escalating climate risks such as water scarcity and floods. Traditional approaches to urban development are ill-equipped to cope with the current and future climate change challenges. Thus, urban adaptation planning is constrained by short-term development agendas, lack of reliable information, limited local capacities, and absence of innovative decision support tools and financial strategies. Figure 8 outlines the problem tree.



**Figure 8.** Problem tree for effective urban adaptation planning in the Central American region.

Barriers to adaptation in cities include governance capacity, access to affordable finance, short-term planning horizons, and the legacy of insufficient past urban infrastructure investment.<sup>42</sup>

25. **Barrier 1. Lack of reliable and actionable city-level climate-risk information and early warning systems:** While global climate models and projections are increasingly becoming more robust and national climate risk and vulnerability studies more available, downscaling climate data and predicting climate change impacts on cities and particular neighbourhoods within them remains a challenge. The three project countries have national scenarios, but only the Metropolitan Area of San Salvador has localized climate projections. Other project cities lack sufficient climate data at the municipal level. The lack of reliable urban climate information service and science-informed decision support tools limits the capacities of cities to effectively plan for mid-term and long adaptation strategies.<sup>43</sup>

26. **Barrier 2. Weak local institutional capacities and coordination for building resilience-building planning approaches in cities:** The insufficient capacities and resources limit the planning and implementation of NbS and climate-resilient infrastructure within an integrated ecosystem-based urban adaptation planning. Climate risk management, climate adaptation and ecosystems conservation agendas are fragmented. This lack of capacities and coordination mechanisms hinder integrated planning and resilience-building in the cities.

<sup>42</sup> IPCC, 2022. Climate Change 2022: Impacts, Adaptation and Vulnerability, Summary for Policymakers

<sup>43</sup> Chu, E., Brown, A., Michael, K., Du, J., Lwasa, S., & Mahendra, A. 2019. *Unlocking the Potential for Transformative Climate Adaptation in Cities*. 76.



27. **Barrier 3. Regulatory framework does not integrate and incentivize climate change adaptation:** The existing urban regulatory frameworks in Honduras, El Salvador, and Guatemala lack effective incentives and provisions for cities to address climate change vulnerability through innovative approaches like Nature-based Solutions (NbS) and climate-resilient infrastructure. Additionally, there is a lack of incentives for private-sector investment, and in some cases, regulations may even promote investments that increase climate vulnerability (e.g., construction in floodplains).
28. **Barrier 4. Insufficient funding or access to financing for NbS:** Municipalities face budget constraints and must prioritize spending due to limited revenue sources primarily derived from taxes and user fees. Creditworthiness issues, especially among intermediate cities, restrict their access to loans, while limited awareness, resources, and capacities hinder their ability to tap into national and regional climate change funding opportunities.

**Proposed adaptation approach: Ecosystem-based urban adaptation planning and climate-resilient infrastructure for cities**

29. In response to climate change projections, highlighting the increasing risks and impacts for cities both in magnitude and occurrence<sup>44</sup>, there is a need to build the resilience of cities and urban ecosystems to withstand climate stresses better. The project will achieve such a change in paradigm by fostering the adoption of ecosystem-based urban adaptation strategies as the preferred model for urban planning and development. To maximize ecosystem functionality, the urban ecosystem approach to adaptation should be the center of urban planning processes, which are informed by climate risk data and ecosystem assessments. For example, this would entail avoiding construction in flood-prone zones and reducing the amount of runoff from upstream developments as well as enhancing water harvesting and storage capacity by i) implementing urban NbS interventions, ii) advocating policies that promote the use of permeable surfaces, and rainwater harvesting; and iii) undertaking construction that facilitates infiltration and increases detention storage for flood reduction or enhanced water availability in cases of water scarcity. Such interventions should be integrated into designing new urban developments and retrofitting urban NbS into existing infrastructure when possible.
30. Taking an integrated systems approach also means that the ecosystem-based urban adaptation strategies will not be designed independently, but rather to complement and strengthen existing risk management strategies and interventions in the cities.

**Project/Programme Objectives:**

31. The project's objective is to address the interlinked challenge of climate change and urbanization by implementing and upscaling NbS to reduce urban climate risks, enhance climate resilience of the communities, provide sustainable and inclusive livelihood opportunities, and build institutional capacity. The project will incorporate new approaches to transform urban development traditional models into climate resilient urban development pathways using NbS. This objective will be achieved via:
- i) Strengthen decision-making capacities of local and national governments and relevant local actors to plan and manage urban climate risks and vulnerabilities by the design and adoption of NbS.
  - ii) Implement cost-effective Nature-based Solutions for climate adaptation and disaster risk

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<sup>44</sup> IPCC. 2022. Sixth Assessment Report: Impacts, Adaptation and Vulnerability. <https://www.ipcc.ch/report/sixth-assessment-report-working-group-ii/>

reduction at watershed and urban scale in nine cities and enhance adaptive capacity of the population and critical infrastructure.

- iii) Increase the access of local government institutions and the urban population to financial strategies to scale up the implementation of Nature-based Solutions for urban climate resilience.
- iv) Enhance replication and upscaling of climate-resilient urban strategies with NbS via strengthening of regional platforms for learning and collaboration.

## Project/Programme Outcomes and Financing:

Project Outcomes	Expected Outputs	Countries	Amount (US\$)
1. Ecosystem-based urban resilience plans are adopted in nine cities and integrated at the national policy level in Honduras, El Salvador, and Guatemala.	1.1 Urban climate services and decision-support tools are developed and tested to guide urban planning processes and regulatory framework. 1.2 National Dialogues “Urban NbS for Resilience” for coordination and collaboration of diverse facilitated. 1.3 A nature-based approach for climate resilience is mainstreamed in urban development, land use planning and policy instruments at the local and national level	El Salvador, Guatemala, Honduras	1.2M US\$
2. Enhanced ecosystem services reduce the exposure and vulnerability of urban populations and critical infrastructure in nine cities.	2.1 Ecosystem-based urban adaptation strategies are co-designed for nine cities with gender-responsive and socially inclusive approach. 2.2 Local and national stakeholders with enhanced capacities to plan, design, implement, maintain and monitor NbS interventions. 2.3 NbS for adaptation are co-designed and implemented at different scales to address identified climate risks and reduce impacts in nine cities	El Salvador, Guatemala, Honduras	7.76 M US\$
3. Municipalities are accessing innovative adaptation financing and mobilizing investments from the private sector in NbS for urban resilience.	3.1 Roadmaps for innovative financing of Nature-based Solutions for urban resilience designed and adopted 3.2 Innovative framework on climate related “loss and damage” in urban areas guides investment for adaptive measures 3.3 Enhanced engagement of private sector in promoting ecosystem-based urban adaptation	El Salvador, Guatemala, Honduras	0.85 M US\$
4. Climate-resilient urban planning is adopted by additional cities across Central America	4.1 City-to-city learning program enhances collaboration at local level for climate resilient urban planning 4.2 South-south learning and peer-to-peer exchange is enhanced through regional conferences.	El Salvador, Guatemala, Honduras	1.65 M US\$
6. Project/Programme Execution cost			1,270,000 US\$
7. Total Project/Programme Cost			12,730,000 US\$
8. Project/Programme Cycle Management Fee charged by the Implementing Entity (if applicable)			1,270,000 US\$
Amount of Financing Requested			14,000,000 US\$

## Projected Calendar:

Milestones	Expected Dates
Start of Project/Programme Implementation	August 2024
Mid-term Review (if planned)	March 2026
Project/Programme Closing	August 2028
Terminal Evaluation	November 2028

## PART II: PROJECT / PROGRAMME JUSTIFICATION

### A.1. Rationale for regional approach

32. Common climate threats and contexts and opportunities for learning and replication bring together Honduras, Guatemala, and El Salvador to pursue a change in paradigm towards improving urban planning, strengthening capacities and response of relevant stakeholders, and benefiting vulnerable communities and nature.
33. **Common urban context:** including poor territorial planning and ineffective integration of climate risk management, increasing settlements in high climate risk areas. This increases people's vulnerability, their settlements, ecosystems, and water security.
34. **Common climate threats:** the three countries are highly vulnerable to climate change and experience recurrent floods and storm surges with devastating effects in urban areas. In addition, increased variability in rainfall often results in water stress for urban areas.
35. **Innovation and the possibility to learn from each other:** The project will provide diverse experiences and solutions for adapting to the climate impacts in urban settings from which all three countries can learn, thanks to the adopted regional approach. In addition, these nine urban cases will be a valuable representative sample of diverse situations from which different urban adaptation models and practices can be extracted to compile lessons learned and further disseminate them in the region. Countries can learn from each other, sharing through training, regional conferences, and thematic virtual gatherings on best practices and lessons learned.
36. The above-mentioned factors provide a strong justification for adopting a regional approach instead of working in each country individually. The regional approach will enable the synergy of action through coordinated planning and implementation of activities and contribute to a comprehensive approach for achieving the goals of the Regional Plan for Implementation of the New Urban Agenda in Central America and the Dominican Republic.<sup>45</sup>

### A.2 Theory of Change

37. The Theory of Change (ToC) is based on the close relationship between ecosystem functions and services (primarily hydrological regulation) and social-ecological resilience in cities. It shows how NbS will transform degraded and climate-sensitive landscapes and build resilience in the ecosystems that sustain urban systems and livelihoods.
38. The project's goal states: **IF** national and local governments maintain their commitment to redirect urban development towards resilience through the adoption of NbS **(A1)** and create enabling conditions for their upscaling **(A2)**, as well as decision-makers acknowledge the significance of addressing climate risks in urban planning and strengthen regulatory instruments **(A5)**, combined with supporting environment of NAPs, NDCs, and NBSAPs **(D1)**, **then** climate impacts in cities will be reduced and the well-being of urban communities will be improved, **because** of the reinforcement of urban planning and regulations, investments in watershed

<sup>45</sup> SICA/UN-HABITAT, 2021. Plan Regional para la Implementación de la nueva agenda urbana en Centroamérica y República Dominicana.

restoration, and the adaptation of nature-based urban livelihoods resilient to the challenges posed by climate change.

39. Figure 9 outlines the ToC strengthened by Assumptions and impact Drivers. The project is designed to achieve four outcomes, which are jointly reinforcing to deliver a paradigm shift:
- **Outcome 1.** Ecosystem-based urban resilience plans are adopted in nine cities and integrated at the national policy level in Honduras, El Salvador, and Guatemala.
  - **Outcome 2.** Enhanced ecosystem services reduce the exposure and vulnerability of urban populations and critical infrastructure in nine cities.
  - **Outcome 3.** Municipalities have increased capacities for accessing innovative adaptation financing and mobilizing investments from the private sector in NbS for urban resilience.
  - **Outcome 4.** Climate-resilient urban planning is adopted by additional cities across Central America.
40. To attain Outcome 1, **If** (i) local and national governments maintain their political will and commitment and share information promptly (**A1**) and (ii) increased awareness and engagement from local communities and with the leadership of networks like Global Covenant of Mayors (GCoM) and the Sustainable Cities Platform, which enhance capacity and drive the policy agenda (**D2**), **then** ecosystem-based urban resilience planning will shape the development trajectories of the nine cities. Moreover, NbS will become an integral outcome of urban policy instruments **because** of the availability of urban-level climate information, decision support system (DSS) tools, effective intergovernmental collaboration, and concerted national and local efforts to mainstream NbS.
41. To achieve Outcome 2, **If** rates of climate change remain within expected projections, and the associated risks are manageable (**A3**), **then** enhanced ecosystem services will effectively reduce exposure and vulnerability of urban population and critical infrastructure in nine cities, **because** ecosystem-based urban adaptation strategies are co-designed and implemented at both watershed and urban scales.
42. To accomplish Outcome 3, **If** policy and fiscal enabling environments encourage financing for the scaling-up of NbS in cities (**A2**), **then** municipalities will have the capability to mobilize investments for this purpose. This will be achieved **because** of the development and adoption of roadmaps for innovative financing of NbS for urban resilience, coupled with an enhanced engagement of the private sector.
43. To realize Outcome 4, **If** key local and national stakeholders are committed to participating in regional collaborations on urban resilience (**A4**), and with the strategic guidance and collaboration at the regional level facilitated by the Central American Integration System (CCAD) (**D3**), **then** enhanced regional coordination and the exchange of best practices regarding urban adaptation approaches will bolster the NbS adoption in Central American cities. This will be achieved **because** of city-to-city learning programs and south-south learning exchanges that will leverage the potential of NbS in the region.

## THEORY OF CHANGE

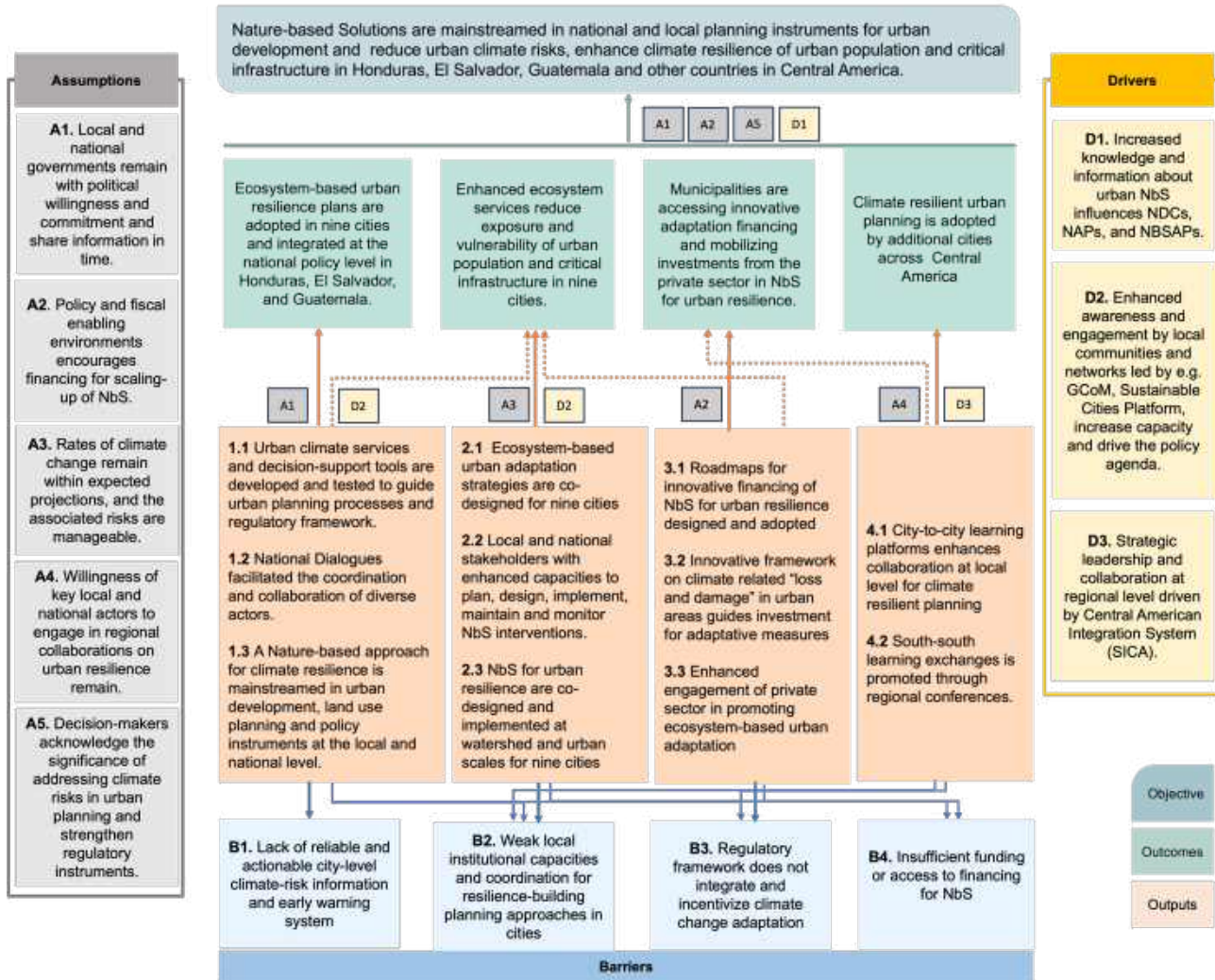


Figure 9. Theory of Change.

### A.3 Project description

44. In this context, this regional project will strengthen urban resilience and reduce climate impacts in nine Central American cities in Honduras, Guatemala, and El Salvador. The strategy is to transform current unsustainable and fragmented urban planning patterns, which increase climate vulnerability and risk exposure of urban communities and infrastructure, towards resilient urban development pathways based on an ecosystem approach to adaptation. The project is designed with four outcomes:

#### Outcome 1: Ecosystem-based urban resilience plans are adopted in nine cities and integrated at the national policy level in Honduras, El Salvador and Guatemala.

45. This project outcome addresses critical challenges in Central American cities' climate change adaptation efforts, including the lack of available and reliable information on hydrological dynamics, climate impacts, and ecosystem functions for resilience building. Regulatory framework does not sufficiently incentivize municipalities, private sector actors and local communities to implement measures to adapt to climate change. Policies are often vague

regarding the specific prioritized climate change investments required at the local level (e.g. permeable pavement, retention ponds, urban wetland restoration, riparian area restoration)<sup>46</sup> and there is a tendency to favor investments in grey infrastructure (due to lack of awareness of and experiences with NbS). There are also insufficient requirements or incentives to attract private sector investment. The legal and regulatory framework within cities may even further enable private sector actors to make investments that could increase cities and their inhabitants' vulnerability to climate change (e.g. building in floodplains). Support is thus required for climate change mainstreaming within municipal development plans, urban development programs/plans, and municipal climate action programs to enable integrated urban planning, mobilize resources by adequately incentivize both public and private investments in climate action, especially NbS and climate-resilient infrastructure.

46. The project aims to strengthen technical capacities at local and national levels, improve urban climate information and decision support tools, and create an enabling environment for integrating Nature-based Solutions (NbS) into urban adaptation planning. The project will tailor urban climate services, including climate risk assessments and hydrological modeling, and produce regionally replicable tools and models for urban planning with NbS, fostering economies of scale and transforming the urban planning trajectories in Honduras, El Salvador, and Guatemala at the national level.

***Output 1.1 Urban climate services and decision-support tools are developed and tested to guide urban planning processes and regulatory frameworks***

47. Effective urban flood management relies on detailed watershed-scale hydrological models, which are often lacking or insufficient in Central American intermediate cities (*Barrier 1*). To bridge this gap, the project will assess cities' climate service needs and generate reliable urban-level climate data. This information will be transformed into user-friendly urban climate services, including participatory, gender-responsive vulnerability and risk assessments and hydrological impact modeling to address floods and water access in cities. These services will align with the Global Framework for Climate Services (GFCS)<sup>47</sup> and actively involve women and youth groups to ensure equitable access. Additionally, successful NbS adoption necessitates a collaborative planning approach, which is often at odds with sectoral planning in cities. Decision support systems (DSS) will facilitate this transition, utilizing urban climate services to co-develop DSS for guiding urban adaptation planning in the nine cities. Activities will include:

- Conduct capacity and needs assessment for urban climate services;
- Conduct Training of Trainers for national and local technical staff on the generation and use of climate information services;
- Develop urban climate information services products;
- Conduct gender-responsive vulnerability and risk assessment and hydrological modelling for nine cities
- Design and develop a web-based DSS to support participatory adaptation planning in cities.

***Output 1.2 National Dialogues “Urban NbS for Resilience” facilitated the coordination and collaboration of diverse actors facilitated.***

48. This output will improve the inefficient coordination and participatory mechanisms used in urban development planning processes by establishing National Urban Resilient Dialogues (*Barrier 2*). These Dialogues will be a platform to build a bridge between science – policy – practice to enhance understanding of the role of ecosystems in urban adaptation strategies, create strategic partnerships and intergovernmental coordination. The Dialogues will bring together

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<sup>46</sup> Azuela, A. 2013. El ordenamiento territorial en la legislación mexicana. En: Sánchez Salazar, M.T., G. Bocco, J.M. Verdinelli (Coord.) *La política de ordenamiento territorial en México: de la teoría a la práctica*. Universidad Nacional Autónoma de México (UNAM) Instituto de Geografía (IG) Centro de Investigaciones en Geografía Ambiental (CIGA) Secretaría de Medio Ambiente y Recursos Naturales (Semarnat) Instituto Nacional de Ecología y Cambio Climático (INECC).

<sup>47</sup> World Meteorological Organisation (WMO): <https://gfcs.wmo.int>

representatives from the local and national government institutions focusing on engaging of women representatives to enhance the climate action agenda in Honduras, El Salvador y Guatemala and effectively contribute to the national planning efforts like in NDCs by developing metrics and indicators relevant for measuring urban adaptation results. The Dialogues will be structured depending on each country's needs and preferences aligned with existing coordination mechanisms. Activities will include:

- Conduct a comprehensive stakeholder analysis to identify key actors involved in urban development planning processes;
- Organize technical roundtable discussions on specific topics related to climate resilience in cities to facilitate National Urban Resilient Dialogues
- Organize three National Dialogues “*Urban NbS for Resilience*”;
- Facilitate the development of action plans during the National Dialogues.

***Output 1.3 A nature-based approach for climate resilience is mainstreamed in urban development, land use planning and policy instruments at the local and national level***

49. Current spatial development plans in the region overlook climate risks and their impact on urban development and the critical interaction between cities and ecosystems, including water recharge, flood protection, and erosion regulation (*Barrier 3*). The success of adopting and upscaling NbS hinges on their integration into urban planning and policies. To address these issues and enhance climate resilience, the project aims to incorporate climate risk and NbS considerations into existing urban development plans, disaster management plans, provincial and district development plans, land use plans, guidelines, and building codes across nine cities, with national-level significance. This will involve policy revisions and updates (e.g. Urban Development Plans, Territorial Plans, etc.) through consultations with government decision-makers and experts, working closely with NbS Task Groups and city-level project focal points. The inclusive process will include workshops, stakeholder meetings, and engagements with urban planners, policymakers, and various stakeholders to ensure that revised plans reflect each urban area's specific needs and vulnerabilities. The outcomes of mainstreaming NbS will not only bolster the resilience of the nine cities but also align with national adaptation planning processes, particularly the NAP processes in Honduras and El Salvador, supported by UNEP. This will foster a holistic and cohesive approach to climate adaptation and disaster risk reduction at the national level. This collaborative effort seeks to enhance urban development in Central America by aligning it with land use planning, integrated water resources management, promoting NbS, enhancing climate resilience, and safeguarding communities from future climate change risks. Activities will include:

- Provide training activities to enhance the knowledge and skills of policymakers, planners, and other stakeholders in understanding and implementing nature-based approaches for climate resilience;
- Develop guidelines documents to provide guidance on integrating NbS into urban development, land use planning, and policy instruments in the three countries;
- Prepare policy briefs to advocate for the integration of nature-based approaches into relevant policies, plans, and regulations at the local and national levels;
- Convene consultation workshops with policymakers, planners, and other stakeholders to draft a roadmap to integrate NbS in relevant policies.

**Outcome 2: Implementing NbS interventions to build climate resilience of citizens, critical urban infrastructure, and basic services.**

50. Watershed and urban ecosystems are crucial in reducing floods and providing essential services like water access and temperature control.<sup>48-49</sup> For instance, urban wetlands absorb stormwater and buffer river flooding, while natural urban streams reduce flooding and erosion. However, urban development often leads to their degradation or loss. This outcome focuses on implementing ecosystem-based urban adaptation investments to reduce climate risks and the vulnerability of cities, local populations, and critical infrastructure to extreme climate events, particularly water stress and floods. The NbS investments will seek the generation of multiple benefits critical for improving the well-being of the urban areas, generating additional economic opportunities, and enhancing the connectivity and functionality of the watersheds. Climate data and DSS from Outcome 1 will inform NbS design, focusing on social inclusivity, gender considerations, best practices, and local context. Financial resources mobilized in Outcome 3 will support up-scaling of NbS and long-term sustainability.

***Output 2.1 Ecosystem-based urban adaptation strategies are co-designed for nine cities with a gender-responsive and socially inclusive approach.***

51. This output aims to pilot a selected set of Nature-based Solutions (NbS) interventions and showcase their potential for reducing climate risks while providing additional social and environmental benefits. With enhanced capacities of local and provincial officials and other key relevant actors on urban adaptation planning and the urban climate services and DSS tools (Output 1.1 and 1.2), this output also aims to guide a participatory co-design process for developing long-term ecosystem-based urban adaptation strategies in the nine cities and beyond (*Barrier 3*). The planning process will be guided by the DSS tools and informed by the climate vulnerability and risk assessment to identify the most exposed areas, vulnerable groups, and sectors in the urban zones. Complementary to this, the hydrological impact modeling (Output 1.1) will result in NbS option analysis to define what location (urban, peri-urban, watershed scales) and design of interventions would have the highest impacts on climate risk reduction and generate multiple socio-economic and environmental co-benefits. The strategies would adopt a cross-sectoral approach to ensure that all sectoral planning processes relevant to the context of the cities consider climate risk management. Stakeholder consultations with affected communities, the private sector, and civil society will also be conducted during the development and implementation of the strategies. The strategies will contain proposed NbS interventions, management recommendations, enforcement arrangements appropriate to each city, and options for specific improvements to city regulations and provincial policies. Activities will include:

- Establish Urban Resilience Teams at the municipal level in the nine cities;
- Organize inclusive workshops to co-create ecosystem-based urban adaptation strategies in the nine cities;
- Organize workshops with local stakeholders to co-design a set of gender-responsive NbS interventions for climate risk reduction for the nine cities.

***Output 2.2 Local and national government officials, planners, citizens, NGOs, and academia with enhanced capacities to plan, design, implement, maintain, and monitor NbS interventions.***

52. Consultations with cities have demonstrated the need for institutional strengthening of adaptation planning at the municipal level. This output will close the knowledge and institutional capacity gaps for medium- and long-term planning considering climate risk, vulnerability, and ecosystem

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<sup>48</sup> Kabisch, N.; Frantzeskaki, N.; Pauleit, S.; Naumann, S.; Davis, M.; Artmann, M.; Haase, D.; Knapp, S.; Korn, H.; Stadler, J.; et al. 2016. Nature-based solutions to climate change mitigation and adaptation in urban areas: Perspectives on indicators, knowledge gaps, barriers, and opportunities for action. *Ecol. Soc.*

<sup>49</sup> Ruangpan, L.; Vojinovic, Z.; Di Sabatino, S.; Leo, L.S.; Capobianco, V.; Oen, A.M.P.; McClain, M.E.; Lopez-Gunn, E. 2020. Nature-based solutions for hydro-meteorological risk reduction: A state-of-the-art review of the research area. *Nat. Hazards Earth Syst. Sci.* 20, 243–270



services as part of an integrated ecosystem-based urban plan (*Barriers 2*). Training will focus on building technical skills at the municipal level to use climate information services and decision support tools developed under Output 1.1 for effective adaptation planning. The activity will establish and train ‘Urban Resilience Teams’ comprised of government personnel and technical staff from institutions involved in urban planning who participate in the co-designing of the DSS and will eventually manage, use, and update.

53. This output aims to train the local communities, government officials, and other relevant actors and equip them with the necessary skills to ensure sustainable management, maintenance, and monitoring of the implemented NbS. The output and related activities are crucial, especially for ensuring the sustainability and efficient maintenance of the prioritized NbS investments in Output 2.3. It will entail activities such as:

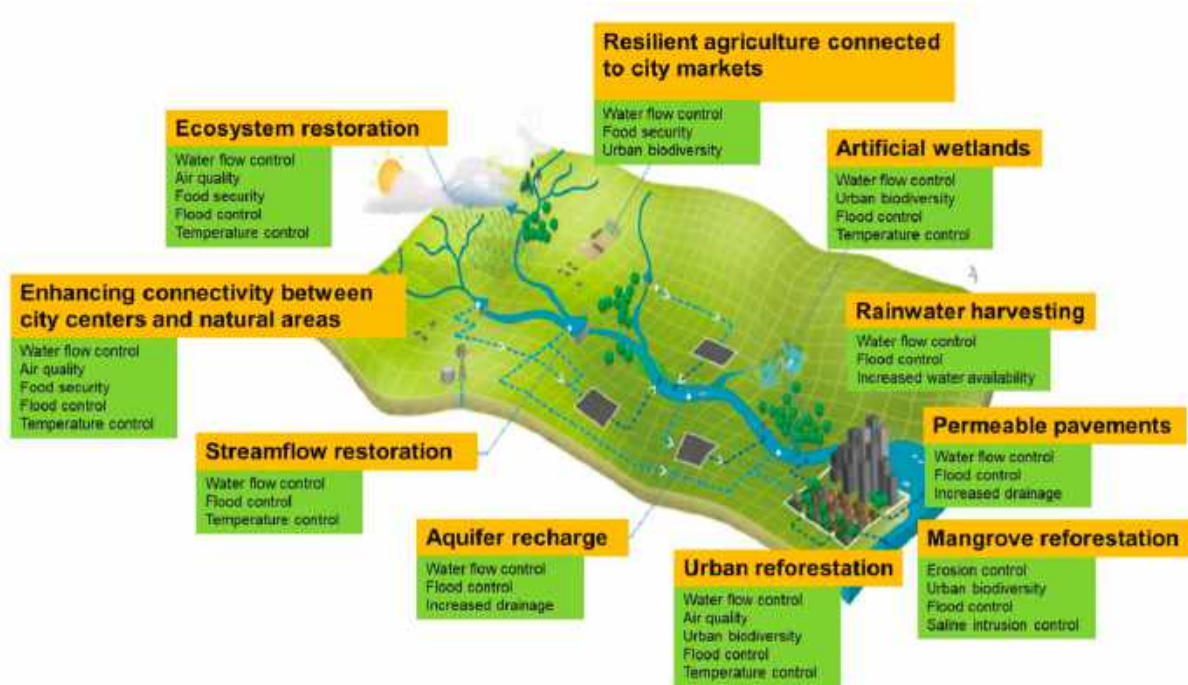
- Organise training sessions for technical staff in the municipalities and other relevant actors on designing, implementing, maintaining and monitoring NbS interventions;
- Organise training sessions for NGOs and academia to strengthen research on NbS for urban resilience;
- Convene community awareness campaign regarding urban climate resilience and NbS;

***Output 2.3 NbS for adaptation are co-designed and implemented at different scales to address identified climate risks and reduce impacts in nine cities***

54. This output will result in implementing NbS at multiple scales prioritized in the ecosystem-based urban adaptation strategies (Output 2.1). Each NbS intervention will be designed in consultation with local government and communities, which will be captured in “Design and Implementation Protocols.” These protocols will inform the NbS interventions, ensuring a gender-responsive and social inclusion design, defining sites, materials, and preferred tree species, among other factors. The design and implementation will be guided by internationally acknowledged standards, including the IUCN NbS Global Standards<sup>50</sup> to ensure that the interventions are effective and comply with social and environmental safeguards. Figure 10 shows example of the multi-scale approach for the interventions.

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<sup>50</sup> IUCN, 2020. Global Standard for Nature-based Solutions. URL: <https://www.iucn.org/news/europe/202007/iucn-global-standard-nbs>



**Figure 10.** Overview of the multi-scale approach to ecosystem-based urban adaptation planning and strategy.

55. The number and scale of the NbS interventions for each city and surrounding area will depend on (i) prioritized climate risks; (ii) identified opportunities for restoration/reforestation; (iii) prioritization of local authorities; and (iv) urban land availability. All these factors and relevant criteria will be analysed in more detail during the development of the concept note and full proposal. Nevertheless, based on the experience with CityAdapt in a Municipality in San Salvador Metropolitan Area, it is envisioned that the project with similar budget per city would be able to invest in a combination of restoration/reforestation and green infrastructure interventions, which may include: (i) Planting 10,000 trees (native species) in urban areas (roundabouts, sidewalks and green areas), (ii) ten urban school gardens; (iii) 1,000 m<sup>2</sup> of permeable pavements; (iv) 54 m<sup>3</sup> rain gardens; (v) retention ponds (5m\*10m\*2m); (vi) ten water harvesting systems for schools, (vii) restoration of urban rivers and gullies, and (viii) restoration of peri-urban forest and agricultural areas key for water recharge and erosion control. This is a preliminary estimation of the scope and scale of the interventions that may be considered for the cities under this project, which will be further defined during the full proposal formulation stage. Activities will include:

- Implement pilot NbS interventions at different scales (e.g., neighborhood, district, city-wide, watershed) for the nine cities<sup>51</sup>;
- Pilot/Support existing/ women’s urban agriculture/nursery initiatives to leverage NbS interventions;
- Engage youth groups and student organizations in tree-planting campaigns, urban greening projects, and climate education initiatives.

56. Table 3 outlines examples of NbS interventions at multiple scales reducing identified urban climate risks.

<sup>51</sup> The specific NbS interventions will be detailed regarding location, type of NbS, scale, during full proposal formulation stage.

**Table 3. Example of NbS interventions reducing specific climate risks.**

Watershed scale			
<b>Agroforestry and forest restoration</b>	<ul style="list-style-type: none"> <li>- Silvopastoral systems inter alia regenerative livestock</li> <li>- Community forest management</li> <li>- Mosaic agroforestry using soil conservation with agronomic practices, vegetation strips and fire breaks</li> <li>- Enriching fallow areas</li> <li>- Promotion of shade agroforestry production systems (e.g. coffee)</li> </ul>	Flood Landslides Droughts	<ul style="list-style-type: none"> <li>- Protective measures against storms/ extreme hydrometeorological events (e.g. wind breaks, erosion and sedimentation control, riverbank stabilization)</li> <li>- Improved water filtration and cycling, enhanced soil water retention, reduced runoff speeds</li> <li>- Diversification of incomes through agroforestry</li> </ul>
<b>Restoration of riparian vegetation</b>	Restoration of riverbanks (planting vegetation and supporting passive and active restoration)	Flood Landslides	River and stream renaturation can help slow the river flow and thus, reduce river floods by creating water retention and infiltration capacity in the river system. <sup>52</sup>
<b>Urban wetland restoration</b>	<ul style="list-style-type: none"> <li>• Restoration of urban wetland areas to improve flood control, water treatment and habitat recovery (e.g. drainage channels).</li> <li>• In coastal areas this could include restoring coastal forests, and mangrove areas.</li> </ul>	Flood Droughts	Protective measures against storms/ extreme hydrometeorological events. <sup>53</sup>
<b>Infiltration ponds and water retention systems</b>	Establishment of infiltration ponds for flood control, and for improved water management (storing excess water for times of scarcity or higher demand)	Flood Droughts	<ul style="list-style-type: none"> <li>- Slow or redirect intense water flows</li> <li>- Improve water storage for increased resilience against water scarcity.</li> </ul>
<b>Mangrove restoration</b>	<ul style="list-style-type: none"> <li>• Restoration and protection of mangroves</li> </ul>	Coastal flooding	<ul style="list-style-type: none"> <li>• Mangrove forests reduce wave height and velocity with their dense vegetation and stabilize coastlines by trapping sediment with their root systems and during heavy rainfall or high flows in rivers.<sup>54</sup></li> <li>• Additionally, mangrove forests can mitigate salt intrusion, coastal erosion, sea level rise.<sup>55</sup></li> </ul>
Urban scale			
<b>Permeable paving</b>	<ul style="list-style-type: none"> <li>• Integration of permeable pavements in streets and large parking lots.</li> </ul>	Floods	<ul style="list-style-type: none"> <li>• Improved permeation of intense precipitation, improving drainage and reducing flooding risk<sup>56,57</sup></li> </ul>

<sup>52</sup> Ozment et al. 2019. Ozment, S., Ellison, G., and Jongman, B. 2019. *Nature-Based Solutions for Disaster Risk Management*. Washington, D.C. World Bank Group.

<sup>53</sup> Haase, D. 2017. Urban Wetlands and Riparian Forests as a Nature-Based Solution for Climate Change Adaptation in Cities and Their Surroundings. Part of the [Theory and Practice of Urban Sustainability Transitions](#) book series.

<sup>54</sup> Spalding, M., McIvor, A., Tonneijck, F.H., Tol, S., and van Eijk, P. 2014. *Mangroves for coastal defence. Guidelines for coastal managers and policy makers*. Wetlands International and The Nature Conservancy.

<sup>55</sup> Bann, C. 1998. *Economic valuation of mangroves: a manual for researchers*. EEPSEA special paper/IDRC. Regional Office for Southeast and East Asia, Economy and Environment Program for Southeast Asia.

<sup>56</sup> Castro Espinosa, M.L. 2011. Pavimentos permeables como alternativa de drenaje urbano. Trabajo de Grado. Pontificia Universidad Javeriana. Bogotá, Colombia.

<sup>57</sup> Guerra Chayña, Pedro Ronald, & Guerra Ramos, César Edwin. 2020. Diseño de un pavimento rígido permeable como sistema urbano de drenaje sostenible. *Fides et Ratio - Revista de Difusión cultural y científica de la Universidad La Salle en Bolivia*, 20(20).

			<ul style="list-style-type: none"> <li>Improved water recharge<sup>58</sup></li> </ul>
<b>Green roofs and facades</b>	Establishment of green roofs or building facades	Floods	Increased urban water infiltration and reduced urban rainwater runoff <sup>59</sup>
<b>Urban forests</b>	Conservation, rehabilitation, creation of green urban areas including parks, urban agriculture, etc.	Flood Droughts	Forests can lower flood heights and flood velocities in surrounding areas, thereby reducing structural damages to properties and infrastructure. <sup>60</sup>
<b>Urban farming</b>	Including industrial rooftop gardens, residential and community gardens, containers on balconies, vacant land are suitable spaces for urban food products.	Flood Droughts	Reducing the amount of stormwater runoff that ends up in storm drains. Open-soil farming stores and infiltrates rainwater, as its rich organic soils act as sponges, soaking up rainwater. <sup>61</sup>

**Outcome 3. Municipalities are accessing innovative adaptation financing and mobilizing investments from the private sector in NbS for urban resilience.**

57. Planning and implementing adaptation strategies for cities require investment, and cities typically lack the necessary financing. Public budgets are strained and face intense competition for scarce public resources. At the same time, the scale of resources available for urban adaptation remains very small in Guatemala, Honduras, and El Salvador since most cities do not meet creditworthiness requirements or lack access to national and regional funding streams and capital markets. Given many cities’ limited fiscal capacity (collect taxes), more concessional financing is needed. Central American cities often depend on central government allocations, lacking creditworthiness and access to funding streams. Key challenges include municipal knowledge gaps in navigating climate finance, the absence of climate considerations in resource allocation, and the finance sector’s limited experience in integrating climate risk. Designing country-level urban adaptation financing strategies will systematically address adaptation needs and mobilize finance through innovative instruments and partnerships. These strategies will engage private and finance sector actors, fostering ecosystem restoration investments through nature-based business solutions and innovation hubs. The strategy will mainstream climate adaptation in national and local financing systems, involving relevant stakeholders in mobilizing, managing, and targeting climate finance.

**Output 3.1 Roadmaps for innovative financing of Nature-based Solutions for urban resilience designed and adopted**

58. This output will facilitate a participatory process involving all levels of government, civil society, and the private sector to identify financial needs and opportunities for mobilizing resources for adaptation in the nine cities through innovative finance solutions (*Barriers 3 and 4*). While financial governance mechanisms vary among Honduras, Guatemala, and El Salvador, they typically involve centralized systems with national allocations to municipalities. This output will

<sup>58</sup> Guerra Chayña, et al. 2020. Ibid.  
<sup>59</sup> Shetti, N. et. Al. 2020. Examining How a Smart Rainwater Harvesting System Connected to a Green Roof Can Improve Urban Stormwater Management. *Water* **2022**, 14(14)  
<sup>60</sup> Salbitano et al. 2016. Salbitano, F., Borelli, S., Conigliaro, M. and Chen, Y., 2016. *Guidelines on urban and peri-urban forestry*. FAO Forestry Paper, 178.  
<sup>61</sup> Aerts, R., Dewaelheyns, V. and Achten, W.M. 2016. Potential ecosystem services of urban agriculture: a review. *Peer J Preprints*, 4, e2286v1.

support municipalities and other stakeholders in enhancing their capacity to understand the adaptation finance landscape, revise financial instruments to integrate climate risk criteria and identify and secure financing from innovative sources. The result will be local institutions with a comprehensive understanding of adaptation needs and innovative financial instruments for resource mobilization, including land-based financial tools.

59. Building on this, the project will assist municipalities and local actors design roadmaps outlining specific adaptation financial needs and opportunities for implementing ecosystem-based urban adaptation strategies (Output 2.3). It will provide detailed guidance on potential public and private finance sources, regulatory frameworks, and recommendations to improve and increase urban adaptation finance flows. Activities will include:

- Conduct a comprehensive assessment of the financial needs for implementing nature-based solutions (NbS) for urban resilience in the nine cities;
- Provide training and capacity-building workshops for local stakeholders on innovative financing concepts, tools, and techniques;
- Develop financing roadmaps outlining actions for mobilizing, allocating, and leveraging financial resources for NbS projects;
- Organize a write-shops to support local stakeholders in drafting project ideas on urban climate resilience.

***Output 3.2 Innovative framework on climate related “loss and damage” in urban areas guides investment for adaptative measures.***

60. This output will address the knowledge gap on methods and approaches for accounting climate-related loss and damage at urban scale. The activities under this output will conduct comparative analysis of existing approaches including “loss and damage” from extreme events and slow onset events. On such foundation, the project will design a tailored methodology and metrics relevant for the urban context, considering the informal economy which usually remains unaccounted for in official estimates following a disaster. The methodology will be validated with the cities, and guidelines for its application will be prepared and disseminated. Activities will include:

- Assess existing frameworks for loss and damage and identify gaps relevant to the urban context;
- Develop a framework for accounting climate-related “loss and damage” in urban areas to guide planning;
- Provide capacity-building and training for local governments, urban planners, and decision-makers on the framework for addressing climate-related loss and damage;
- Organize a validation workshop with key stakeholders for the framework on “loss and damage”.

***Output 3.3 Enhanced engagement of private sector in promoting ecosystem-based urban adaptation.***

61. This output aims to boost private sector involvement in financing NbS for urban resilience through the establishment of three national Urban NbS Business and Innovation Hubs, fostering innovation and collaboration (*Barrier 4*). These hubs will employ various tools like business fairs, hackathons, training sessions, and funding mechanisms to engage the private sector. Additionally, South-South exchange with existing urban initiatives will be explored via activities under Outcome 4, and the potential of public-private partnerships and innovative climate finance mechanisms will be identified. The results will inform adaptation finance roadmaps and guidelines for assessments in the nine project cities.

- Conduct stakeholder analysis of the private sector to identify key actors to be engaged at the local/national level;
- Organize workshops with the private sector to enhance the understanding of opportunities to engage in NbS interventions;
- Create three (3) Urban NbS Business and Innovation Hubs for innovation and collaboration with the private sector.

#### **Outcome 4. Climate resilient urban planning is adopted by additional cities across Central America .**

62. Regional learning and knowledge sharing are central strategies for sustaining urban resilience efforts over time and fostering collaboration among Honduras, El Salvador, Guatemala, and the wider Central America region. This approach aims to increase communities' understanding of climate change impacts, inspire the adoption of NbS, and influence local decision-making processes. It includes activities such as establishing a regional academy on NbS, facilitating city-to-city learning programs for climate-resilient planning, and organizing regional conferences to enhance south-south knowledge sharing and scale-up project results. Additionally, innovative knowledge management instruments will be developed to facilitate information sharing, training, data analysis, and dissemination of best practices. Regional organizations like the Commission of Central America on Environment and Development (CCAD) will be engaged to ensure lessons learned are widely shared, and various mechanisms such as an Academy on Ecosystem-based Urban Adaptation Planning, City-to-City Learning Program, and regional knowledge sharing workshops will be implemented to promote the replication of best practices in urban NbS throughout Central America.

#### ***Output 4.1 City-to-city learning platforms enhances collaboration at local level for climate resilient urban planning.***

63. City-to-city learning platforms will facilitate collaboration and knowledge sharing among cities in Honduras, El Salvador, and Guatemala based on similarities in their characteristics, climate threats, and prioritized interventions (*Barriers 2 and 3*). These programs will involve exchanges between municipal urban planning technicians, risk management institutions, and beneficiaries engaged in implementing NbS interventions, focusing on youth and women groups. This will create valuable peer-to-peer learning opportunities. The exchanges will be structured around diverse thematic and models including field visits, academic short courses integrated into university curricula, climathons, innovation hubs to promote NbS mainstreaming. Activities will include:

- Organize study tours between cities to allow urban planners, policymakers, academicians, civil society and other stakeholders to learn from each other's experiences;
- Convene three national innovating platforms in the form of incubators and climathons for policy and technological solutions to urban resilience challenges;
- Facilitate peer-to-peer exchanges, with the formation of urban NbS task groups, via the Community of Practice “*Nature4Cities*”<sup>62</sup>

#### ***Output 4.2 South-south learning and peer-to-peer exchange is enhanced through regional workshops.***

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<sup>62</sup> The Community of Practice “Nature4Cities” is located in the Knowledge Platform CityAdapt and was created under the GCF Readiness Grant for the regional initiative Nature4Cities. At present, 13 cities from Latin America and the Caribbean are part of the CoP, and this project will engage the nine additional cities in the peer-to-peer exchanges.

64. This output aims to foster knowledge exchange and identify lessons learned, best practices, and regional consensus regarding advancing urban climate resilience (*Barriers 2 and 3*). This output will organize three regional workshops to achieve an effective regional dialogue and enhance opportunities for replication and upscaling of the ecosystem-based urban adaptation planning model, particularly technical aspects of NbS interventions. The workshops will have technical sessions to advance the innovation on NbS and high-level policy discussions to incentivize actions and strategic partnerships. Activities will include:
- Organize and coordinate three (3) regional workshops focused on climate resilience and urban planning.
  - Draft a roadmap for upscaling NbS for urban resilience in the region, that includes exchange with other regional and global initiatives on urban resilience.

**B. Describe how the project /programme would promote new and innovative solutions to climate change adaptation, such as new approaches, technologies and mechanisms.**

65. Innovation in this project can be considered both as creating something new but will also be produced by mainstreaming initiatives, approaches, processes, techniques, and concepts which are new vis-à-vis the local context of cities in Honduras, El Salvador, and Guatemala. Even though globally, urban NbS for adaptation are not considered innovative, in the countries involved in this project, they certainly have a strong innovation outcome as they are not yet sufficiently diffused and applied. This project will introduce and pilot them, adapting them to the specificities of each city, making sure to reach the largest number of beneficiaries, especially the poorest and most vulnerable. As part of its new approach to ecosystem-based urban adaptation planning, the project will promote the following absolute innovations:
66. **Urban climate information services:** Reliable and actionable urban climate information services, which integrate climate data and models with socio-economic assessments, are a prerequisite to improving and guiding adaptation measures because they enable targeted interventions. CIS are expected to facilitate improved decision-making, such as urban planning policies, resilient infrastructures, novel business opportunities, and future investments. The project will result in developing a spatial planning tool and novel CIS, which allows the screening of multiple climate risks through integrating different sources of information (e.g., present and future climate data, urban topography, flood and drought modeling, and socioeconomic factors) in a spatially explicit form. The core of this tool is a detailed, high-resolution GIS-based landscape tool that identifies critical risk points and potential adaptation solutions with a focus on NbS (Output 1.1).
67. **Framework for estimating climate-induced urban “loss and damage”:** Assessing climate-related “loss and damage” in cities is a new urban frontier. While the discussions at COP27 brought the topic to the top of the international agenda, there is little clarity on the framework for accounting and even less the implications for cities. There is very limited experience in accounting for “loss and damage” in urban contexts, which are complex and climate impacts often remain unquantified and informal. There remains a need to explore ways to quantify losses and damages in a context where data are often lacking. Therefore, the project will aim to fill this knowledge gap and co-design an innovative framework for accounting “loss and damage” for urban contexts drawing from existing assessments and knowledge aligned with the UNFCCC Santiago Network to see what is transferrable and what would need to be specific to urban contexts, such as access to basic infrastructure and services (Output 3.2).
68. **Urban NbS Business and Innovation Hubs:** The creation of such Hubs will be an innovative element of the project, bringing together diverse actors from the academia, policymakers and private sector to define needs and opportunities for leveraging financing opportunities for urban

NbS via business innovation. The Hub will include diverse tools for engaging with the actors, including hackathons, green climate challenges, climate bonds, innovation and research funds and business fairs, among others to drive demand and supply opportunities for business innovation to enhance ecosystem restoration for urban resilience (Output 3.3).

69. **Innovative approach and tools for urban adaptation:** The project promotes an ecosystem-based urban adaptation approach for planning processes to enhance climate resilience. This approach integrates climate-risk-informed urban planning and adopting NbS interventions at appropriate scales to reduce climate risks and impacts (Output 2.1).
70. **Catalogue with urban NbS for adaptation:** Based on the climate information services and adaptation options analysis (Output 1.1) coupled with best practices, the project will construct a detailed catalogue of urban NbS for adaptation suitable for intermediate cities in Central America to guide decision-making processes and policy formulation (Output 2.3).

**C. Describe how the project/programme would provide 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 would avoid or mitigate negative impacts, in compliance with the Environmental and Social Policy of the Adaptation Fund.**

71. The climate impacts (especially by storm surges and floods) in the nine cities of the project and the target communities cause loss of lives, affect livelihoods and damage properties, community assets, and the environment. The severity of these climatic events is projected to increase. As a response, the project is meant to bring economic, social and environmental benefits to communities. Economic benefits can be grouped into two types: benefits caused by costs reduction due to increased resilience of the cities to the hazards; and improved economic environments through new green and decent job opportunities and, in general, better conditions for businesses and economic activities. Social benefits are meant as benefits that are distributed within the whole communities, despite the existence of a variety of groups, and as the prevention of the most marginalized and vulnerable individuals being negatively impacted with no chance to recover from the impacts of climate change. It is all about increasing and mainstreaming resilience. Environmental benefits are achieved by protecting the environment from human and climate-related impacts, restoring degraded ecosystems, and enhancing biodiversity. Table 4. describes the overall benefits each project outcome will bring to the present and future communities of the nine target cities, three countries, and wider regional context.

*Table 4. Overview of social, economic and environmental benefits from the project intervention. Sources: The World Bank, 2021*

Project outcomes	Benefits		
	Economic	Social	Environmental
<b>Outcome 1.</b> Ecosystem-based urban resilience plans are adopted in nine cities and integrated at the national policy level in Honduras, El Salvador, and Guatemala.	The integration of climate resilience in planning practice will ensure that people will start living in a safer environment and get access to basic services even during emergency periods, avoiding disruption of their income-generating activities.	Gender-responsive and socially inclusive adaptation planning to strengthen the resilience of the most vulnerable and support them to overcome systemic constraints and barriers.  Prevention of settlement in risky areas through zoning as well as enforcement of building codes for resilient housing will contribute to save lives.	Reduction of pressure on priority ecosystems for water collection and other land use.  These actions will increase the community awareness regarding the linkages between the state of the environment and their well-being and safety. They will enhance the interest of local authorities and of the community to take better care of existing ecosystems.



	Risk maps may inform private and public investments.	Avoiding losses and disruption of basic services thanks to Urban Climate Information services will also contribute to public health and poverty alleviation.	
<b>Outcome 2.</b> Enhanced ecosystem services reduce the exposure and vulnerability of urban populations and critical infrastructure in nine cities.	Communities will be involved as paid labour in construction works and related maintenance and cleaning needs, thus ensuring them access to a new source of income.  High economic costs of flooding caused by damage on infrastructure and assets can be mitigated; flood risk reduction increases confidence of investors in the city.  NbS relevant to improved drainage will generate savings for the local authorities compared to the current models and ensure a better service.	Erosion, flash floods and floods are mitigated, especially at hotspot flood areas and where people and assets are at risk. A particular focus on marginalized and vulnerable groups is kept and benefits are equally distributed through the population.  Drainage is not clogged; hence there will be no breeding grounds for mosquitoes and water borne diseases, thus leading to an improvement of public health.  Community involvement as workforce will bring ownership of the intervention and confer more sustainability to these interventions.	Reduction of soil erosion and land degradation.  Enhancement of ecological connectivity and habitats to promote biodiversity.  Ecosystems conserved, habitats protected, and ecosystem services secured (including flood protection, that in turn strengthens the resilience of urban and rural communities, as well as ecosystems, micro-climate buffering, erosion protection)  Enhanced sequestration of GHGs through ecosystem conservation and sustainable land management via NbS investments
<b>Outcome 3.</b> Municipalities are accessing innovative adaptation financing and mobilizing investments from the private sector in NbS for urban resilience.	Adaptation finance data at city level informs planning and public and private investments.  Local government capacities to develop bankable projects on NbS, are enhanced.	Enhancement of capacity and skills on climate finance and project development will enhance financial literacy of key local actors and enhance opportunities to mobilize finance for NbS implementation.	Reduce environmental impacts from urban-related infrastructure investments.  Create incentives for nature conservation, restoration and biodiversity enhancement.
<b>Outcome 4.</b> Climate resilient urban planning is adopted by additional cities across Central America	Best practices, demonstration of cost-effectiveness and guidelines will foster upscaling of urban NbS interventions.	Enhanced knowledge and capacities at regional level on best practices on NbS.	Enhanced integration of ecosystems in urban planning processes leading to increased conservation and restoration as well as enhanced biodiversity.

**D. Describe or provide an analysis of the cost-effectiveness of the proposed project/programme and explain how the regional approach would support cost-effectiveness.**

72. **Outcome 1. Ecosystem-based urban resilience plans are adopted in nine cities and integrated at the national policy level in Honduras, El Salvador, and Guatemala.** With results from Output 1.1, the project will provide improved climate information, urban adaptation planning will ensure that climate change will be factored into development planning and construction within and around the city limits. Thus, reducing risk in urban investments and saving costs in long-term maintenance of infrastructure. Climate information is critical for early-warning systems to avoid loss and damage during extreme events. Just 24 hours of warning of a coming storm or heat wave can cut the ensuing damage by 30 percent, and spending \$800

million on such systems in developing countries would avoid \$3–16 billion per year in losses.<sup>63</sup> With results from Output 1.2 and 1.3, the project will enhance inter-institutional collaboration for mainstreaming of NbS in urban planning instruments. This ensures that efforts to enhance urban resilience are coordinated and avoid duplication. By leveraging existing policies and plans, resources can be directed more efficiently towards common goals. Additionally, it will maximize synergies by integrating resilience planning into broader policy frameworks allows for the identification and utilization of synergies between different initiatives. This will lead to more comprehensive and cost-effective approaches to urban resilience that address multiple challenges simultaneously.

73. Outcome 2. Enhanced ecosystem services reduce the exposure and vulnerability of urban populations and critical infrastructure in nine cities. **Approximately 70 percent of the investments will be directed to concrete adaptation measures with NbS approach, maximizing the project's direct beneficiaries. Making investments with nature-positive outcomes can increase business opportunities to the scale of USD 10 trillion per year and generate, by 2030, about 395 million jobs.**<sup>64</sup> NbS are an effective trajectory to lead this paradigm shift in cities. NbS cost-effectiveness is well investigated by scholars, helping to underpin investment decisions in both government and private sectors.<sup>65&66</sup> Notably, the implementation of the interventions under Outcome 2 will be led by the municipalities through community involvement and the support of local civil society organizations. This partnership model will reduce costs significantly as the concerned municipalities and beneficiaries will be expected to provide in-kind support. At the same time, the project will prioritize NbS, which generates multiple benefits, including bringing economic benefits to the communities through job creation and transition towards a more sustainable economy, especially targeting women and youth. Estimates show that that up to 750 full time equivalent jobs can be created in developing countries for every US\$ million invested in NbS activities.<sup>67</sup> Meanwhile, low-carbon and climate-resilient investments deliver far higher economic returns than investment in traditional infrastructure and fossil fuels.<sup>68</sup>

Economic analysis of the benefits of land restoration in Latin America provides evidence to support that the adoption of policy measures and removal of barriers to land restoration efforts by national and local governments result in substantial benefits, including gains in disaster risk control, agricultural production, alleviation of food insecurity and carbon sequestration.<sup>69</sup> Estimates from 25 projects show that each hectare of urban green space can provide between USD 3,000 and 18,000 in annual benefits in terms of carbon storage, stormwater reduction and pollution abatement.<sup>70</sup> The use of soil conservation methods and NbS interventions, such as vegetative barriers, is recognized in the region as increasing climate adaptation by increasing soil water infiltration, retaining soil moisture, and reducing soil erosion<sup>71</sup>. The proposed multi-scale NbS for adaptation interventions implemented in target cities and associated watersheds

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<sup>63</sup> GCA, 2019. Adapt now: a global call for leadership on climate resilience. Available at: [https://gca.org/wp-content/uploads/2019/09/GlobalCommission\\_Report\\_FINAL.pdf?gl=1\\*q3tr8l\\*ga\\*MTU3NDk4NTM0NC4xNzA4MTEwMzg0\\*up\\*MQ..](https://gca.org/wp-content/uploads/2019/09/GlobalCommission_Report_FINAL.pdf?gl=1*q3tr8l*ga*MTU3NDk4NTM0NC4xNzA4MTEwMzg0*up*MQ..)

<sup>64</sup> World Economic Forum. *Scaling Investments in Nature—The Next Critical Frontier for Private Sector Leadership*; World Economic Forum: Cologny, Switzerland, 2022

<sup>65</sup> Seddon, N.; Chausson, A.; Berry, P.; Girardin, C.A.J.; Smith, A.; Turner, B. Understanding the Value and Limits of Nature-Based Solutions to Climate Change and Other Global Challenges. *Philos. Trans. R. Soc. B Biol. Sci.* **2020**.

<sup>66</sup> Kang, S.; Kroeger, T.; Shemie, D.; Echavarría, M.; Montalvo, T.; Bremer, L.L.; Bennett, G.; Barreto, S.R.; Bracale, H.; Calero, C.; et al. Investing in Nature-Based Solutions: Cost Profiles of Collective-Action Watershed Investment Programs. *Ecosyst. Serv.* **2023**.

<sup>67</sup> ILO and WWF (2020) *Nature Hires: How nature-based solutions can power a green jobs recovery*. International Labour Organisation and World Wildlife Fund. [www.ilo.org/wcmsp5/groups/public/---ed\\_emp/documents/publication/wcms\\_757823.pdf](http://www.ilo.org/wcmsp5/groups/public/---ed_emp/documents/publication/wcms_757823.pdf)

<sup>68</sup> Cook, J. and Taylor, R. (2020) *Nature is an economic winner for Covid-19 recovery*, World Resources Institute. [www.wri.org/news/coronavirus-nature-based-solutions-economic-recovery](http://www.wri.org/news/coronavirus-nature-based-solutions-economic-recovery)

<sup>69</sup> World Resources Institute. 2018. *The Economic Case for Landscape Restoration in Latin America*.

<sup>70</sup> Elmqvist, T., Setälä, H., Handel, S. N., Van Der Ploeg, S., Aronson, J., Blignaut, J. N., ... & De Groot, R. (2015). Benefits of restoring ecosystem services in urban areas. *Current opinion in environmental sustainability*, 14, 101-108.

<sup>71</sup> Harvey et al., 2017. The use of Ecosystem-based adaptation practices by smallholder farmers in Central America. *Agriculture, Ecosystems and Environment*, 246:279-290. 0

will restore degraded lands and prevent subsequent forest clearing in critical recharge zones and other ecosystems. This is expected to protect communities from risks of flooding and will decrease the vulnerability of the poorest neighborhoods in urban areas, thus reducing loss and damage and recovery costs for the local governments.

**74. Outcome 3. Municipalities are accessing innovative adaptation financing and mobilizing investments from the private sector in NbS for urban resilience.**

**75. Outcome 4. Climate resilient urban planning is adopted by additional cities across Central America:** The regional approach is significant in ensuring the project's cost-effectiveness by sharing experience, knowledge, and other resources. Specific actions enhancing the cost-effectiveness include: **i) Sharing best practices and lessons learned (Output 4.1 and 4.2):** Regional collaboration facilitates the sharing of best practices and lessons learned from NbS projects across different cities. This exchange of knowledge can help cities avoid common pitfalls, optimize project design, and achieve better outcomes, thus increasing the cost-effectiveness of resilience efforts. **ii) Capacity Building Programs (Output 4.1):** Regional initiatives as planned City-to-City visits and trainings will provide training and technical assistance on NbS to local stakeholders. By centralizing these programs at a regional level, cities can benefit from economies of scale and ensure consistent quality in capacity-building efforts, ultimately enhancing the cost-effectiveness of building climate resilience. **iii) Knowledge Sharing Platform (Output 4.1):** Regional partnerships will be strengthened via the Community of Practice, which serves as a knowledge-sharing network dedicated to NbS and climate resilience in cities. This network will facilitate ongoing communication, collaboration, and the exchange of information between cities, researchers, practitioners, and policymakers, fostering continuous learning and innovation at a lower cost compared to individual city-level initiatives.

**E. Describe how the project/programme is consistent with national or sub-national sustainable development strategies, including, where appropriate, national or sub-national development plans, poverty reduction strategies, national communications, or national adaptation programs of action, or other relevant instruments, where they exist. If applicable, please refer to relevant regional plans and strategies where they exist.**

International level

76. At the global level, the project aligns with the New Urban Agenda, the Quito Declaration on Sustainable Cities and Human Settlements for All, approved at the United Nations Habitat III conference in October 2016. The project is further consistent with the Paris Agreement adopted under the United Nations Framework Convention on Climate Change (UNFCCC), and the Sendai Framework for Disaster Risk Reduction (DRR) for the period 2015–2030. The project further aligns with the Sustainable Development Goals (SDGs) n.11: *“Make cities and human settlements inclusive, safe, resilient and sustainable”* as well as SDG target 13.1: *“Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries”*

Regional level

77. Under the SICA framework, the Central American Commission on Environment & Development (CCAD), which sees the involvement of both Ministers of Environment, have approved and given their political support to the regional initiative "Building Resilience in the SICA region under a synergistic approach between Mitigation and Adaptation focusing on the Agriculture, Forestry

and other land uses sector (AFOLU-2030)".<sup>72</sup> The present project would be consistent and complement the component on "Conservation of forests and forest ecosystems."

National level

78. The project aligns with the climate change and development regulatory and policy frameworks in Honduras, El Salvador and Guatemala and will directly contribute to the key objectives of their NDCs (see Table 5).
79. **Honduras** has a national climate change law and has created different offices at the national level to work on adaptation and mitigation with different sectors. The country updated its NDC in 2021 with clear objectives to work on reducing vulnerabilities to climate change and working in cities, to which the project is directly contributing. UNEP is currently working on the development of the National Adaptation Plan (GCF Readiness), which provides a unique opportunity for complementarity to strengthen the agenda for urban resilience and urban ecosystem-based adaptation approach both at local and national scale. Objective 8) Smart cities: promotes sustainable development of cities and communities, through urban development based on environmental, social and economic sustainability, resilient livelihoods and urban environments, durable infrastructure.
80. In **El Salvador**, the project aligns with the government's strategic vision outlined in the Cuscatlán Plan (PQD 2019-2024). This plan emphasizes conservation, biodiversity, and the sustainable use of natural resources, with a strong commitment to environmental sustainability, resilience to natural risks, and addressing climate change impacts. El Salvador's 2012 National Environmental Policy aims to combat environmental degradation and reduce vulnerability to climate change. The National Climate Change Strategy (launched in 2013) and the 2015 National Climate Change Plan both focus on building a resilient, low-carbon society and economy. The project also fits within El Salvador's Sustainable Plan (2018-2030), supporting sustainable development, disaster preparedness, and the protection of critical water recharge areas. It aligns with sector-specific strategies, including the National Integrated Water Resource Management Plan, and the National Strategy for watershed management, emphasizing climate-resilience measures in forestry and natural resource management.
81. **Guatemala** approved the Framework Law on Climate Change (LMCC) in 2013 with Article 10 of Decree 7-2013, which includes the mainstreaming of climate change in planning processes and Public Investment Programmes, with prioritization in the allocation of economic resources to government entities that formulate their plans, programs, and projects accordingly. The National Climate Change Action Plan (PNACC) was concluded in 2020. Chapter VI of the PNACC includes a National Adaptation Plan with three strategic lines: enhancing (1) Risk and Disaster Management, (2) facing the impact of climate change, and (3) increasing the country's resilience. It highlights the need for integrating adaptation and the reduction of vulnerability in territorial planning and in key sectors of society, including infrastructure, water management, ecosystems conservation, human settlements.

**Table 5. Summary of the most important national policy instruments on climate change.**

<b>Honduras</b>		
Honduras' NDC (2021) <sup>73</sup>	Among Honduras's NDC's, these are the most relevant to work in urban climate resilience: – Objective 8) Smart cities: promotes sustainable development of cities and communities, through urban	<b>Outcome 2</b> includes actions to increase the resilience of urban communities such as co-designed NbS solutions to reduce climate

<sup>72</sup> SICA, 2019. <https://wedocs.unep.org/handle/20.500.11822/29904>

<sup>73</sup> Honduras NDC: [https://unfccc.int/sites/default/files/NDC/2022-06/NDC%20de%20Honduras\\_%20Primera%20Actualizaci%C3%B3n.pdf](https://unfccc.int/sites/default/files/NDC/2022-06/NDC%20de%20Honduras_%20Primera%20Actualizaci%C3%B3n.pdf)

	<p>development based on environmental, social and economic sustainability, resilient livelihoods and urban environments, durable infrastructure;</p> <ul style="list-style-type: none"> <li>Objective 9) Water Security: ensure the availability of water resources and sustainable and integrated water management, projections and forecasts for good water planning, financial support necessary for the implementation of policies that incorporate measures and actions for the integrated. management of water resources in Honduras</li> </ul>	<p>impacts which contributes to the NDC's Objective 8.</p> <p><b>Outcome 1 and 2:</b> water management is a core element within the project as any intervention will be designed integrating a watershed approach, including hydroclimatic modelling to better plan interventions, contributing to NDC's Objective 9.</p>
<b>El Salvador</b>		
<p>El Salvador's NDC (2019)<sup>74</sup></p>	<p>Priority actions in adaptation in the Cities Sector:</p> <ul style="list-style-type: none"> <li>Small lamination pond technologies in priority areas in the San Salvador Metropolitan Area (AMSS), for flood prevention in the city and human settlements;</li> <li>Inter-institutional coordination and articulation for the implementation of the AMSS Initial Adaptation Plan, led by the Central Government and the COAMSS and scaling up of the adaptation results of the Sustainable Urban Development Project in the AMSS</li> <li>Developing sustainable and resilient human settlements using bio-climatic actions in housing and renewable energies</li> <li>Updating of instruments to promote and foster development, such as environmental zoning maps and land use guidelines with detailed guidelines for strict practices, within the planning and development plans of the territories and in accordance with their reality</li> <li>Implementation of disaster risk reduction plans, based on national studies of disaster losses and climate change impacts; awareness raising and promotion of climate risk management, based on the Sendai framework program on risk governance.</li> </ul>	<p><b>Outcome 1</b> proposes to strengthen climate information services for to better inform planning. <b>Outcome 2</b> proposes a watershed approach to design NbS interventions in cities, which goes in line with priority actions for the city sector in El Salvador. Furthermore, coordination between different city officials is part of the efforts under Outcome 1 to facilitate interaction and a common understanding of climate impacts and possible solutions through an ecosystem-based approach. All the above strategies are aligned with El Salvador NDC's objectives to work at the city level.</p>
<b>Guatemala</b>		
<p>Guatemala's NDC (2021)<sup>75</sup></p>	<p>Key areas which are relevant to the project:</p> <ul style="list-style-type: none"> <li>Forest Resources, Ecosystems and Protected Areas. Under this priority, it is expected that by 2025, the Ecosystem-based Adaptation (EbA) approach will be integrated into the institutional strategic instruments of governmental institutional strategic instruments of governmental entities such as Ministry of Environment and Natural Resources, Ministry of Agriculture, National Council of Protected Areas and National Forest Institute.</li> <li>Integrated Water Resources Management. An expected goal under this priority is to that by 2025 there will be more than 3,000 ha of restored riparian forests.</li> </ul>	<p>The project's core approach resides in ecosystem-based adaptation as a strategy for creating urban resilience reflected in <b>Outcomes 1 and 2</b>. This approach integrates natural resources management, including water management as a response to climate impacts. Positioning EbA as an NDC target and having a specific target to restore riparian forests is in line with possible strategies that the project can design and implement.</p>

Local level

82. Despite the well-established potential and cost-effectiveness of NbS in enhancing urban resilience, the integration of such adaptation measures remains regrettably rare in the policy and regulatory frameworks for urban development. In the context of Guatemala, El Salvador, and Honduras, a preliminary policy analysis of territorial and urban planning instruments has revealed a notable lack of consideration for climate risk and ecosystem conservation aspects. This gap highlights the need for a comprehensive policy analysis during the full-proposal stage, aiming to identify crucial entry points for effectively mainstreaming NbS into planning instruments that directly impact urban development. Outlined below are key characteristics of the urban planning

<sup>74</sup> El Salvador NDC: <https://unfccc.int/sites/default/files/NDC/2022-06/El%20Salvador%20NDC-%20Updated%20Dic.2021.pdf>

<sup>75</sup> Guatemala NDC: <https://unfccc.int/sites/default/files/2022-06/NDC%20-%20Guatemala%202021.pdf>

frameworks in the three countries, which will serve as the foundation for the in-depth policy analysis.

83. **In Honduras**, with the approval of the Municipalities Law in 1990, it gave local governments the authority to prepare and execute urban and rural development plans, regulation and control of urban development, land use, expansion of the perimeter of municipalities and administration of their resources. For this reason, the Municipal Land Management/Urban Planning Units lead these processes with the support of central government and International Cooperation Agencies. Later, in 2003, the Territorial Planning Law was adopted, with the purpose of guiding the territorial planning processes at different scales (national, departmental, and municipal), which must be led by the Ministry of Government and Justice, through the Directorate of Territorial Planning, which provides guidelines and indications for the elaboration of the Territorial Planning Plans at the municipal level. In addition, in 2009, with the approval of the National Risk System Law (SINAGER), the Risk Management outcome is linked to the territorial planning processes. Likewise, the Permanent Contingency Commission (COPECO), the rector entity of the Risk Management System, must support the municipalities to elaborate the Municipal Risk Management Plans.
84. **In Guatemala**, article 253 of the Constitution indicates that territorial planning falls under the jurisdiction of municipalities and article 154 states that this type of public function cannot be delegated to any other individual or private entity. The main planning instrument is Territorial Planning (POT for its acronym in Spanish), which is articulated in the National Planning System and can be composed of 5 outcomes, among which the POT ordinance, where its main characteristics are detailed, and the Local POT (PLOT) that can be initiated either by citizens or by municipalities when they identify needs that aren't covered by the POT at the neighbourhood level. To date, only Guatemala City has a binding POT, mainly for construction aspects and buildability; in 2009, the Undersecretariat of POT was created within the Planning and Programming Secretariat (SEGEPLAN) to provide assistance to municipalities for the development of their POTs. The POT's function and scope are twofold: to provide orientation on investments (public or private) and to elaborate tools on the depth of territorial application (general or specific). Sector Plans can complement the POTs at the city level and can further be narrowed down to define the possible projects to be carried out through the District and Delegation Investment Plans. For Guatemala city, the POT also includes a series of simple and proportional incentive mechanisms to support the implementation of its objectives. Moreover, as defined by the Decree 12-2002, the government allocates funds to each municipality; distribution is overviewed by the SEGEPLAN, the Ministry of Public Finance, the National Association of Municipalities and the Guatemalan Association of Mayors and Indigenous Authorities (AGAAI). The decree also establishes a coordination mechanism with the Community Development Councils (COCODES) and the Municipal Development Council (COMUDES), but these representative bodies are considered weak and lack legitimacy<sup>35</sup>. Although the decree also establishes that municipalities can receive external donations for their public expenditures and that a Municipal Development Institute (INFOM) exists to support in municipalities in their budget management<sup>36</sup>, municipalities depend highly on the central governments' transfers of resources, since 95% of Guatemalan municipalities depend on such transfers for more than 59% of their budget. Nonetheless, there's a lack of clarity in the allocation of public spending, and it is not accompanied by a parallel increase in administration and management capacities, which limits the local development potential.
85. **In El Salvador**, the Ministry of Housing, as the governing body, has as functions the national housing and urban development policy, determining, where appropriate, the competencies and respective activities of the state entities in their execution, facilitating and ensuring the urban development plans of those localities whose municipalities do not have their own local development plans, which must be framed within the regional and national development plans for housing and development; as well as monitoring those municipalities or associations of

municipalities that have their own territorial development plan. It's important to include in this sector, the national law on land use planning and development, which objective is to establish inputs that govern land management and development processes and regulate planning, programming, evaluation, and land management instruments. It creates the National Council and the 14 Departmental Councils for territorial planning and development. In this sense, the Planning Office of the Metropolitan Area of San Salvador - AMSS is the first and only experience of regionality in the country, with the framework of law by legislative decree at the metropolitan level (law of land use planning and development of the AMSS), related to planning and control of urban development in the 14 municipalities that constitute the AMSS. According to this law, it is a competence of COAMSS/OPAMSS to formulate the metropolitan plan for land use planning and development and its master plan.

Table 6. Summary of the policy instruments on urban planning and climate change for the nine project cities (grey: policy instrument does not exist, orange: in process of development, green: policy instrument exists, \*Urban adaptation plan will be developed by end 2023/2023 under the project Natur4Cities)

	Municipal adaptation plan	Municipal risk management plan	Municipal urban development plan
<b>Honduras</b>			
La Lima <sup>76*</sup>			
Choloma <sup>77</sup>			
Puerto Cortés <sup>78, 79</sup>			
<b>El Salvador</b>			
AMSS San Salvador <sup>80, 81, 82, 83</sup>			
San Miguel			
La Libertad			
<b>Guatemala</b>			
Ciudad de Guatemala <sup>84*</sup>			
Escuintla <sup>85</sup>			
Puerto San José <sup>86</sup>			

### **Gender integration in urban planning**

86. **In Honduras:** Honduras recently created the Secretariat for Women's Affairs to guide public policy on women and gender issues, approved by the President in Council of Ministers (PCM 05-2022). Also, The Presidential Program "Ciudad Mujer" is attached into this secretariat, which was created in 2016 as a new management model that integrates 14 public institutions to support

<sup>76</sup> Municipal Development Plan with a Land Use Planning Approach in La Lima <https://sheltercluster.s3.eu-central-1.amazonaws.com/public/docs/pmgr-la-lima.pdf>

<sup>77</sup> <https://www.sgid.gob.hn/biblioteca-virtual/docspdm/pdm-certificados/sta-barbara-pdm-certificados/1335-pdm-quimistan-santa-barbara/file>

<sup>78</sup> Municipal Risk Management Plan and Territorial Zoning Proposal for San Manuel <https://sheltercluster.s3.eu-central-1.amazonaws.com/public/docs/pmgr-san-manuel.pdf>

<sup>79</sup> <https://opamss.org.sv/wp-content/uploads/2022/04/ResumenED.pdf>

<sup>80</sup> Other relevant planning instruments include (1) Regulation to the law of development and territorial planning of the Metropolitan Area of San Salvador and the surrounding municipalities 80, (2) Guide of recommendations for the design of integrated networks of sustainable mobility and public space 80 (3) Methodology and management strategy of the Public Space San Salvador Metropolitan

<sup>81</sup> Initial climate change adaptation plan from the Metropolitan Area of San Salvador

[https://opamss.org.sv/PIACC/assets/documents/PIACC-AMSS\\_Final.pdf](https://opamss.org.sv/PIACC/assets/documents/PIACC-AMSS_Final.pdf)

<sup>82</sup> [https://opamss.org.sv/PIACC/assets/documents/PIACC-AMSS\\_Final.pdf](https://opamss.org.sv/PIACC/assets/documents/PIACC-AMSS_Final.pdf)

<sup>83</sup> <https://opamss.org.sv/wp-content/uploads/2018/05/DIARIO-OFICIAL-14-02-2017.pdf>

<sup>84</sup> Municipal Development and Territorial Planning Plan. URL: [https://www.copresam.gob.gt/wp-content/uploads/2022/04/GUIA\\_PARA\\_LA\\_IMPLEMENTACION\\_DEL\\_PDM-OT\\_EN\\_GUATEMALA-1.pdf](https://www.copresam.gob.gt/wp-content/uploads/2022/04/GUIA_PARA_LA_IMPLEMENTACION_DEL_PDM-OT_EN_GUATEMALA-1.pdf)

<sup>85</sup> Municipal Development and Territorial Planning Plan for Escuintla. URL: [https://portal.segeplan.gob.gt/segeplan/wp-content/uploads/2022/05/501\\_PDM\\_OT\\_ESCUINTLA\\_ESCUINTLA.pdf](https://portal.segeplan.gob.gt/segeplan/wp-content/uploads/2022/05/501_PDM_OT_ESCUINTLA_ESCUINTLA.pdf)

<sup>86</sup> [https://portal.segeplan.gob.gt/segeplan/wp-content/uploads/2022/05/509\\_PDM\\_OT\\_SAN\\_JOSE.pdf](https://portal.segeplan.gob.gt/segeplan/wp-content/uploads/2022/05/509_PDM_OT_SAN_JOSE.pdf)

women in the exercise of their rights, access services for their well-being and the empowerment of their development opportunities.<sup>87</sup> Art 71. of Law of Equal Opportunities for Women (Decree No. 34-2000), includes the evaluation of the housing needs of women, stimulating the design and implementation of innovative projects that promote women's access to services and means of financing. It also repeals the laws and administrative practices that restrict or limit the possibility of acquiring a home as the owner or as a rental. This is however not enough, as it is necessary to formulate and strengthen policies and practices to promote the full participation and equality of women in human settlement planning and all decision-making.<sup>88</sup> A second Plan for Gender Equality and Equity of Honduras for the period 2010–2022 was established, with the purpose of incorporate objectives and goals in the public agenda in order to achieve gender equality and equity.

87. **In Guatemala**, efforts were made for the development and strengthening the institutional framework that allows reaching higher levels of equality between men and women, with the creation of institutions for the promotion of human rights, such as the National Office for Women, the Office of the Indigenous Woman (DEMI in Spanish) and the Presidential Secretariat for Women (SEPREM). Policies such as sexual and reproductive health, reduction of violence against women and those that enhance their possibilities of economic independence or recognize their decisive role in social care and reproduction are considered a priority for the coming years<sup>87</sup>. In that regard, a Municipal Policy and Plan for the Integral Development of Women for the 2019-2017 period was established by the Municipality of Guatemala 2019-2027. It aims at institutionalizing equal opportunities between women and men in the strategic guidelines of the Municipality of Guatemala, as well as in its relations with other administrations, entities and/or institutions. The plan sets the approval path for its municipal integration, as well as monitoring mechanisms around 4 main axes: 1) Citizenship and participation under equal conditions, 2) Promotion of the economic autonomy of women, 3) Metropolis, neighbourhoods, and public spaces that are inclusive, safe, sustainable for all, 4) Strengthening municipal capacities in gender for equality between their inhabitants. The Women Municipal Directorate is implementing it and has started its implementation in coordination with the Municipal Planning Directorate, the Financial Directorate, the Social Management, the Environment Directorate for Climate Change issues, the Urban Mobility Directorate and the Human Resources Directorate. In addition to the plan, the gender issue is considered as a transversal axis in all directions and municipal agencies, and a dialogue table is established specially for this issue with NGOs and international cooperation agencies.
88. **In El Salvador**, there is the Law on Equality, Equity, and Eradication of Discrimination against Women, approved in 2011, which establishes the fundamental principles, purposes, and regulatory guidelines that government policies or other State institutions must contemplate to ensure the administrative, sociopolitical, and cultural conditions that demand equal rights. The governing body to promote the implementation of this law in all instances of the state is the Salvadoran Institute for the Development of Women (ISDEMU). ISDEMU has formulated the Institutional Guidelines for the mainstreaming of equality, non-discrimination, and a life free of violence for women in state institutions 2022, which defines the mechanisms for the implementation of current regulations through institutional gender units, institutional gender diagnosis, institutional policy and its action plan, specific budget, among others. One of the tools that the institution has the Methodological Guidelines for strategic planning and participatory budgeting with a focus on gender equality and social inclusion in the municipalities of El Salvador, aimed at the different institutions in charge of facilitating processes of formulation, execution, and evaluation of strategic plans for sustainable development at the local level. The creation of the COAMSS/OPAMSS Gender Committee stands out to promote and facilitate the mainstreaming

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<sup>87</sup> SICA – Política Regional de Igualdad y Equidad de Género (PRIEG)

<sup>88</sup> ONU Habitat, 2016, Informe Habitat III – Honduras.



of the gender approach in the strategic sustainability agendas that assist planning, ordering, and territorial management in the AMSS.

**F. 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.**

The proposed interventions will adhere to all national regulations and technical standards in El Salvador, Honduras, and Guatemala, particularly those relating to Environmental Impact Assessment, ecosystem protection, and urban development. During full proposal development and implementation, the project will work with architects, engineers, lawyers, and environmental consultants specializing in the relevant field can ensure that the project design and implementation meet all compliance requirements. The project will follow all guidelines and established procedures for obtaining all necessary permits and approvals from relevant authorities, where needed.

Field	Relevant Technical Regulations and Standards
Environmental Impact Assessment	<p><b>El Salvador</b></p> <ul style="list-style-type: none"> <li>• <b>Environmental Law (Decree No. 1333, 1992):</b> Establishes the legal basis for EIAs, requiring them for projects with potential environmental and social impacts.</li> <li>• <b>Regulation of Prevention and Environmental Control (Decree No. 24176, 1995):</b> Outlines the EIA process, including project categories, screening procedures, study requirements, public participation, and licensing procedures.</li> <li>• <b>Technical Environmental Guidelines:</b> The Ministry of Environment and Natural Resources (MARN) issues guidelines for conducting EIAs in various sectors like industry, infrastructure, and tourism.</li> </ul>
	<p><b>Guatemala</b></p> <ul style="list-style-type: none"> <li>• <b>Environmental Protection and Improvement Law (Decree No. 68-86):</b> Establishes the legal basis for EIAs, requiring them for projects potentially impacting the environment.</li> <li>• <b>Regulation on Environmental Assessment, Control and Monitoring (Regulation 137-2016):</b> Details the EIA process, including project categories, screening procedures, study requirements, public participation, and licensing procedures.</li> <li>• <b>Technical Environmental Guidelines:</b> The Ministry of Environment and Natural Resources (MARN) issues guidelines for conducting EIAs in various sectors like mining, infrastructure.</li> </ul>
	<p><b>Honduras</b></p> <ul style="list-style-type: none"> <li>• <b>Regulations of the National Environmental Impact Assessment System (Decree 189-2009):</b> These regulations detail the EIA process, including project categories, screening procedures, study requirements, public participation, and licensing procedures.</li> <li>• <b>Technical Environmental Guidelines:</b> The National Environmental Commission (CONAMA) issues technical guidelines for conducting EIAs in various sectors like mining, water resources, and infrastructure.</li> </ul>
Ecosystems: Forests	<p><b>El Salvador</b></p> <ul style="list-style-type: none"> <li>• <b>Environment Law (1998)</b> aims to establish provisions for the protection, conservation and recovery of the environment and the sustainable use of natural resources.</li> <li>• <b>Protected Areas Law (2005)</b> aims to regulate the establishment of the legal regime, administration, management, and increase of protected natural areas to conserve biological diversity, ensure the functioning of essential ecological processes, and guarantee the stability of the natural system.</li> <li>• <b>Forestry Law (2002)</b> establishes provisions that allow for the increase, management, and sustainable use of forest resources and the development of the timber industry.</li> </ul>
	<p><b>Guatemala</b></p> <ul style="list-style-type: none"> <li>• <b>The Forest Law decree 101-96</b> is the main regulation that governs forests in the country. In Guatemala, the administration of national forest is in charge of the National</li> </ul>

	Forest Institute (INAB) for area outside protected zones, and The Protected Areas Council CONAP for forest in protected areas. Both INAB and CONAP Have regional offices in the project area. The project will not infringe on the integrity of forests in the project area.
	<p><b>Honduras</b></p> <ul style="list-style-type: none"> <li>• <b>General Law of the Environment (Decree 104-93):</b> This cornerstone law establishes the legal basis for EIAs, requiring them for a range of projects with potential environmental impacts.</li> <li>• <b>Forestry Law (Decree 98-1993):</b> Regulates forest management and requires EIAs for activities impacting forest resources.</li> <li>• <b>Protected Areas Law (Decree 94-1994):</b> Protects designated areas and requires EIAs for projects within or near them.</li> </ul>
<b>Urban development</b>	<p><b>El Salvador</b></p> <ul style="list-style-type: none"> <li>• <b>Urban Development and Territorial Planning Law (Decree 805, 2008):</b> Provides the national framework for land-use planning and urban development, outlining principles, processes, and responsible institutions.</li> <li>• <b>National Housing Policy (2017):</b> Outlines strategies for housing and urban development, emphasizing social inclusion, sustainability, and disaster risk reduction.</li> <li>• <b>General Law of the Environment (Decree 1333, 1992):</b> Establishes environmental standards and regulations for urban development projects, promoting sustainability considerations.</li> </ul>
	<p><b>Guatemala</b></p> <ul style="list-style-type: none"> <li>• <b>Urban and Rural Development Code (Decree 33-2006):</b> Provides the national framework for land-use planning and urban development, outlining principles, processes, and institutions involved.</li> <li>• <b>Housing National Policy (2017):</b> Outlines strategies for housing and urban development, emphasizing accessibility, sustainability, and disaster risk reduction.</li> <li>• <b>General Law of the Environment (Decree 68-86):</b> Establishes environmental standards and regulations for urban development projects, influencing sustainability considerations.</li> <li>• <b>Building Codes:</b> National and local building codes set technical standards for construction within urban areas, ensuring safety, structural integrity, and accessibility.</li> </ul>
	<p><b>Honduras</b></p> <ul style="list-style-type: none"> <li>• <b>Law on Public Spaces and Urban Landscapes (2010):</b> Focuses on green areas and public spaces and provides guidelines for accessing permits.</li> <li>• <b>General Building Code (2000):</b> This code establishes minimum standards for construction across the country.</li> <li>• <b>Law on Territorial Planning and Development (2003):</b> Provides the national framework for land-use planning, including urban areas, outlining principles, processes, and institutions involved.</li> <li>• <b>General Law of the Environment (1993):</b> Establishes environmental standards and regulations applicable to urban development projects, ensuring environmental protection and sustainability.</li> </ul>

89. The project will adhere fully to the Environmental and Social Policy of the Adaptation Fund and the Environmental and Social Sustainability Framework of UNEP. An evaluation will be carried out to identify relevant environmental and social safeguards during proposal formulation. Moreover, in addition to fulfilling the requirements outlined in the AF ESP and UNEP's principles, the project will also comply with relevant national laws, including those that incorporate the host country's obligations under international law. In cases where host country regulations differ from the standards and measures outlined in the ESMP, the project will adhere to the stricter policy.

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

90. The project is built upon the lessons learned and best practices from two regional projects implemented by UNEP, including: (1) **CityAdapt - Building Climate Resilience of Urban**

**Systems through Ecosystem-based Adaptation (EbA) in Latin America and the Caribbean**<sup>89</sup> (GEF: 2018 - 2023) implemented in three cities across El Salvador, Mexico and Jamaica and (2) **Nature4Cities - Increasing resilience through Nature-based Solutions in Latin American cities**<sup>90</sup> (GCF Readiness: 2021 - 2024) implemented in 13 cities across Honduras, Guatemala, Cuba, Ecuador, Panama, the Dominican Republic and Uruguay. Lessons from those two projects will be replicated and upscaled by the current regional project in the selected cities.

91. Additionally, the project will seek synergies and opportunities for mainstreaming of NbS in the development of the GCF-funded National Adaptation Plans in Honduras and El Salvador, currently implemented by UNEP.

#### **CityAdapt 1.0 (Coordinated by UNEP)**

92. CityAdapt 1.0's goal is to build the capacity of government and local communities to adapt to the effects of climate change through integrating Ecosystem-based Adaptation (EbA) into urban planning and demonstrating their cost-effectiveness. The current proposal includes one of the project's cities: San Salvador (El Salvador). Key lessons learned applied for this proposal include:

- *Multi-sectoral collaboration:* The project's success in previous locations was greatly enhanced by collaborating with multiple sectors such as urban planning, water management, private sector and academia. Lessons learned suggest that the proposed project should foster collaboration among relevant sectors in the targeted cities to create integrated, nature-based solutions. This is considered in Outputs 1.2; 2.2; 3.1 and 3.3.
- *Community Involvement:* Engaging local communities in the planning and implementation of nature-based solutions was a successful approach in the earlier project. Similar community involvement strategies will be integrated into the proposed activities for the selected cities via Outputs 1.2; 2.1; 2.2; and 4.1.

#### **Nature4Cities (Coordinated and executed by UNEP)**

93. The project aims to increase national and local capacities to design, implement, and upscale nature-based urban development strategies that ensure resilience to climate change. The current proposal includes two of the project's cities: La Lima (Honduras) and Guatemala City (Guatemala). Key lessons learned applied for this proposal include:

- *Effective Stakeholder Engagement:* In Nature4Cities, we learned that involving a wide range of stakeholders, including local governments, community groups, the private sector, and academia, in the planning processes was crucial for success. This is considered in Outputs 1.2; 2.1, and 3.1.
- *Local Adaptation Planning:* Nature4Cities highlighted the significance of tailoring nature-based solutions to each city's needs and vulnerabilities. Conducting a comprehensive vulnerability assessment in the cities to identify priority areas for nature-based interventions and align them with local adaptation plans is essential. This is considered in Outputs 1.1; 1.3 and 2.1.
- *Capacity Building:* Building local capacity in climate resilience and nature-based solutions was a key takeaway, and additional knowledge gaps were identified. In the new proposal, Outputs 1.1; 1.3; 2.2 and 3.2, sufficient resources are allocated for training and capacity-building activities for local and national stakeholders to ensure the sustainability of the project's outcomes.
- *Knowledge Sharing:* Nature4Cities emphasized the importance of innovative tools and approaches for sharing and peer-to-peer learning. This lesson is applied Outputs 4.1 and 4.2

<sup>89</sup> Additional information: <https://www.thegef.org/projects-operations/projects/5681>

<sup>90</sup> Additional information: <https://www.greenclimate.fund/document/increasing-resilience-through-nature-based-solutions-latin-american-cities-nature4cities>

by creating platforms for city-to-city knowledge exchange and collaboration between the project cities and the wider regional networks such as UrbanShift and Generation Restoration.

*Table 7. Summary of projects and potential synergies and complementarities with the regional project.*

Regional		
Ecosystem-based Adaptation to increase climate resilience in the Central American Dry Corridor and the Arid Zones of the Dominican Republic  Fund: Green Climate Fund Budget: USD 264,400,000	The project aims to strengthen the adaptive capacity and climate resilience of vulnerable, rural communities, including farmers and entrepreneurs, in the Dry Corridor region of Central America (Guatemala, Honduras, El Salvador, Costa Rica, Nicaragua and Panama) and in the arid zones of the Dominican Republic. Through financing and technical assistance, the programme will encourage private sector participation and create an enabling environment for the investment and uptake of large-scale ecosystem-based adaptation and water/energy-efficient technologies.	Lessons learned from the project will be integrated in the process of identification, design and implementation of urban NbS in <a href="#">Outputs 2.2 and 2.2</a> . Additionally, the project will build upon knowledge generated on engagement with the private sector in ecosystem-based adaptation to identify financing models and opportunities to mobilize financing as part of the urban financing plans under <a href="#">Outputs 3.2 and 3.3</a> .
Use of Nature-based Solutions to Increase Resilience to Extreme Climate Events in the Atlantic Region of Central America (Belize, Guatemala, Honduras)  Fund: Adaptation Fund Budget: USD 14,000,000 Years: 2022 - 2026	Enhance climate resilience of communities and the ecosystems by deploying nature-based restoration efforts, supporting local/ community early warning systems, and implementing a regional approach that enhance scaling up of NbS in the Gulf of Honduras.	UNEP would be interested to explore synergies with implementing entities: CATIE and WRI, to boost NbS. In particular, there are opportunities for synergies on trainings and scaling up of NbS via <a href="#">Outputs 2.1, 2.2. and 2.3</a> .
Scaling Up Ecosystem-based Adaptation Measures (EbA) in rural Latin America  Fund: IKI Budget: USD 9,430,000.00 Years: 2021 – 2025	Increase climate resilience of vulnerable communities and ecosystems in rural areas of Ecuador, Guatemala, and Costa Rica. Project approach: (i) Strengthening governance at the landscape, subnational, national and regional levels; (ii) Application and scaling up of innovative, effective and sustainable EbA measures in vulnerable communities and ecosystems; (iii) Strengthening the individual, organizational and institutional capacities of the main agents on EbA through knowledge management at the national and regional levels; and (iv) Increase the flow of financial resources for EbA measures by developing financial instruments and facilitating access to financing for the implementation of interventions.	Synergies could then focus on <a href="#">Output 1.1</a> related to municipal tools to manage hydrological sources or risk prevention on infrastructure development, on <a href="#">Output 3.2</a> to enhance financial sector engagement, and on <a href="#">Output 4.1</a> to organize a city-to-city collaboration for climate resilient planning.
Improvement and harmonization of disaster risk management with special emphasis on the metropolitan regions of the member countries of the Central American Integration System (SICA)  Fund: BMZ Budget: USD 7,471,345	The regional Urban Resilience project works along three main lines of action to promote to promote capacities, networks and synergies, in order to enable metropolitan regions in Central America to take advantage of professional, financial or human resources at the regional level and minimize disaster risks. The city of San Salvador is part of this project.	There are opportunities to leverage efforts taking lessons learnt and information generated on disaster risk management and integrate them into activities in Ilopango and Soyapango municipalities, which are the main target of this project in the AMSS area in <a href="#">Output 1.1 and 1.2</a> .
El Salvador		
Urban Adaptation to Climate Change in Central America	The project aims to adapt urban agglomerations to climate change by promoting preventive measures, via improved protection of the	Lessons learnt from this project can be upscaled to project's cities in El Salvador. In particular, regarding the

<p>Fund: KfW Budget: USD 15,000,000</p>	<p>population and infrastructure in the urban poor neighborhoods of Greater San Salvador from climate risks. The project includes green and grey infrastructure measures to reduce risks from flooding, landslides and high winds, as well as measures to improve climate risk management (development of the early warning system, training of the institutions and residents involved).</p>	<p>process of risk assessment and integration in decision making in <u>Output 1.3</u> and identification, design and implementation of urban NbS in <u>Outputs 2.2 and 2.3.</u></p>
<p>Innovative Platform for Landslide and Debris Flow Risk Reduction in El Salvador Fund: IADB Years: 2019-2025</p>	<p>To reduce the human and economic risk associated with landslides and debris flows in El Salvador by developing a platform for identifying effective risk reduction measures.</p>	<p>The project can use the platform for identifying the most effective risk reduction measures, use them for cities in El Salvador and scale them to the other countries if possible and adequate as part of <u>Output 1.1</u> and <u>Outputs 2.1, 2.2 and 2.3.</u></p>
<p><b>Honduras</b></p>		
<p>Honduras urban climate adaptation Fund: BMZ- Germany Budget: USD 15,000,000 Years: 2019-2025</p>	<p>The project aims to strengthen the capacities of the participating institutions in managing climate risks and climate adaptation and to educate the population in dealing with climate risks in the "Distrito Central" municipal district.</p>	<p>Lessons learnt from this project can be upscaled to other cities in Honduras, selected under the project. In particular, the lessons learned will be integrated in the process of risk assessment and integration in decision making in <u>Output 1.3</u> and identification, design and implementation of urban NbS in <u>Outputs 2.3.</u></p>
<p>Promoting climate- resilient forest restoration and silviculture for the sustainability of water-related ecosystem services Fund: GCF Years: 2019-2025</p>	<p>Improving the provision of water services by increasing the climate resilience of vulnerable coniferous forests. This project focuses on Water and complements well this Project by exchanging information on cost- effective silvicultural practices to enhance and maintain water services in the target area.</p>	<p>There are opportunities to leverage efforts taking lessons learnt and information generated on suitable conservation and restoration practices with focus on risk reduction in peri-urban areas, in particular synergies will be possible within <u>Outputs 2.1, 2.2 and 2.3.</u></p>
<p><b>Guatemala</b></p>		
<p>Conservation and Sustainable Management of the Dry Forest Landscape Fund: GEF Budget: USD 4,950,000</p>	<p>Improve the conservation of the Tropical Dry Forest (TDF) ecosystem and its associated biodiversity by: (i) developing a scheme for targeting forestry incentives and strengthening the governance model for their implementation; (ii) facilitating access to incentives and providing technical assistance to beneficiaries in the planning and implementation of the farm plan; and (iii) evaluating the scheme to propose policy recommendations to channel forestry incentives towards the country's conservation needs. The project focuses on the conservation of ecosystems in rural and peri-urban areas and has a municipal planning outcome. Lessons learnt can be taken to Guatemalan cities with dry forests.</p>	<p>There are opportunities to leverage efforts taking lessons learnt and information generated on suitable conservation and restoration practices with focus on risk reduction in cities in the Dry Forest Landscape peri-urban areas, in particular synergies will be possible within <u>Outputs 2.1, 2.2 and 2.3.</u></p>
<p>Towards resilient cities in Guatemala: addressing biodiversity loss and recovery through integrated urban planning and development (In preparation) Fund: GEF Budget: USD 4,224,896</p>	<p>Project's goal is to promote transformative urban system change in Guatemala. It has three outcomes: (1) Integrated urban planning to tackle issues like urban sprawl, water and waste management, transportation, and green spaces. (2) Attract sustainable investment and encourage sustainable, nature-friendly, and climate-resilient urban development by creating incentives for private urban investments and</p>	<p>Potential synergies can be developed with <b>Output 1.1</b> related to tools to guide urban planning or for regulatory framework; <b>Output 2.1</b> to enhance technical capacities of local and national stakeholder to implement and maintain NbS interventions; <b>Output 3.1</b> to improve knowledge of urban adaptation finance gap and</p>

	exploring innovative approaches and (3) Enhance knowledge sharing and capacity building for NbS and enabling effective policy and financing approaches.	opportunities; and with <b>Output 3.3</b> to work on financing for ecosystem-based urban adaptation
Guatemala Urban Resilience Project Fund: World Bank Budget: USD 116,000,000	Main goal is to enhance urban infrastructure, expand access to essential public services, and bolster housing resilience in Mancomunidad del Sur municipalities. The project has three key objectives: (1) Urban upgrading to enhance infrastructure and services in specific urban areas, fostering inclusivity, productivity, and climate resilience; (2) Territorial Planning and Housing Capacity Building and (3) Emergency Relief and Recovery of public and community infrastructure.	UNEP could then develop synergies related to <b>Output 2.1</b> to enhanced technical capacities on NbS design, and with <b>Output 2.2</b> and <b>Output 2.3</b> to scale up nature-based interventions to reduce identified climate risks and impacts. Moreover, there are different potential activities we can collaborate related to <b>Output 1.1</b> and <b>Output 1.3</b> focus on policies, regulations, and planning instruments at municipal or national level.

**If applicable, describe the learning and knowledge management outcome to capture and disseminate lessons learned.**

94. At the regional and international level, learning and knowledge will be managed and promoted by UNEP and the Central American Integration System (SICA) and its Commission on Environment and Development (CCAD). UNEP has launched the Latin America and the Caribbean Regional Knowledge platform on urban NbS – CityAdapt<sup>91</sup>, which will play a key role in the project’s ambition of creating a regional dialogue and synergies between initiatives working on urban climate resilience and NbS. It aims at facilitating peer-to-peer discussions, strenghtening of capacities of national authorities and other key stakeholders by providing a toolbox with guidelines and methodologies for planning urban resilience, webinar series and self-paced e-learning course on urban NbS. It will build on past and current initiatives and include the project’s results and lessons learned – the existing initiative of bi-monthly webinars<sup>92</sup> will be continued to showcase good practices from El Salvador, Guatemala, and Honduras, and encourage local exchange. Additionally, the selected cities will join the virtual Community of Practice (CoP) established by the Nature4Cities project in 2023 to strengthen knowledge and regional exchange of best practices on topics as (a) vulnerability and risk analysis; (b) adaptation planning; (c) climate financing mechanisms; among others. Face-to-face exchanges will also be facilitated through three (3) regional workshops, one in each country, promoting learnings at the regional level and leading to the drafting of a roadmap on NbS upscaling for urban resilience (output 4.2.). Moreover, the participant cities will be supported to join regional or global networks, such as the Global Covenant of Mayors or initiatives such as Race to Resilience or UrbanShift, to access different material and opportunities (including financial ones).
95. At national level, learning and knowledge will be managed and promoted by UNEP in coordination with universities and execution entities, by the generation of tailored knowledge products such as catalogues, protocols, educational material and manuals. Three national platforms will gather this information, in the form of climathons and incubators, to encourage innovative knowledge management practices. Cities beyond the identified ones will be encouraged to join in capacity building activities and communication campaigns included in Outcome 2 and 4, to ensure replicability and sustainability of the proposed approach throughout the countries. This will also be carried out by the formed urban NbS task groups (output 4.1), with policymakers, practitioners and researchers, who will focus on selected topics to increase the understanding and knowledge sharing on gender-sensitive climate adaptation mainstreaming within municipal planning. Study tours between cities will be a key space to exchange among urban planners, policy-makers, academicians, civil society, and other stakeholders (output 4.1). The project will seek to engage

<sup>91</sup> Latin America and the Caribbean Regional Knowledge Hub on urban NbS – CityAdapt: <https://cityadapt.com>

<sup>92</sup> See the Wednesday of CityAdapt webinars - <https://cityadapt.com/webinars/>

with national associations of municipalities (for example AMHON in Honduras) to share knowledge and mobilize action for upscaling NbS for urban climate resilience. The project will also liaise and participate in activities carried out under a national agenda by UN Habitat, UNDRR or UNEP, including but not limited to, the implementation of the New Urban Agenda, the implementation of the Sendai Framework or the National Adaptation Plans. Exchange workshops will also be identified with national knowledge platforms being carried out by the International Association of Local Governments for Sustainability (ICLEI), the Fundación Futuro Latinoamericano (FFLA), or the Climate and Development Knowledge Network (CDKN).

96. At the local level, learning and knowledge will be part of the regional and national learning strategies but also will be focused on achieving a closer engagement with local stakeholders. In particular, local stakeholders will be consulted throughout project design phase, for the co-design of pilot NbS measures to be implemented (output 2.1); they will receive training in their maintenance and participate in community awareness campaigns to increase local knowledge on NbS in urban areas (output 2.2). They will further be encouraged to participate in the various stages of the project for the co-generation of research products and guidelines including, (i) risk and vulnerability assessments, (b) adaptation planning processes and (c) financial analysis. Local stakeholders will also be part of a series of e-learning and in-person training sessions. In particular, the project envisions a City-to-City Learning Programme (Output 4.2) to engage city stakeholders in knowledge exchange and incentivize the replication of best practices. This Learning Programme will provide an opportunity for field visits to cities across the project countries to demonstrate project results and opportunities for upscaling. Local private sector actors will also be engaged in tailored activities aiming at enhancing understanding and mainstreaming of EbA in their activities, with the creation of urban NbS business and innovation hubs (output 3.3.).
97. A communication plan will be developed during the project's inception phase and managed in association with the knowledge management plan, to ensure active knowledge outreach at all levels.

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

98. Engagement with the NDA and stakeholder engagement during the CN development. The development of this Concept Note complies with all Adaptation Fund policies with particular attention to its Environmental, Social and gender Risk policies. Relevant project information has been timely and regularly presented to relevant stakeholders during the concept formulation via a series of technical bilateral meetings, one virtual regional meeting, and in-person consultation workshops with the project cities. The objective of the meetings was to ensure the engagement of key local and national stakeholders, allowing them to address comments and concerns and make the necessary changes in the project design. The consultation process included:

- **Bi-weekly technical meetings:** Virtual meetings with the technical team of the Ministries of Environment and aimed at sharing progress on the project design, ensuring alignment with priorities, data collection and technical consultation.
- **Regional-level consultation:** The meeting took place on 10<sup>th</sup> November 2022 with the participation of representatives from the National Governments of the three countries. The objective of the meeting was to identify barriers to adaptation in the cities, agree on project objectives and expected outcomes and define the project design. See Table 8 with key outcomes from the meeting.
- **City-level consultations:** Virtual meetings took place on 18<sup>th</sup> March 2023 for El Salvador, 21<sup>st</sup> of March 2023 for Guatemala and 18<sup>th</sup> July 2023 for Honduras. In-person consultation

workshops with the project cities took place on 14 – 16 July, 2023 in El Salvador, 2 - 6 October 2023 in Guatemala and 11 – 15 December 2023 in Honduras. Participants included representatives from the National Governments, local authorities and representatives of the communities of the selected cities. The objective of the meetings was to share advances of the project proposal with the key local and national actors, ensure alignment with local and national priorities and needs and agree on the project design and expected outcomes. This was followed with See Table 9 with the key outcomes from the meetings.

**Table 8. Summary of regional consultation process with national authorities.**

<b>El Salvador</b>	Ministry of Environment and Natural Resources	4 participants (3 male, 1 female)	<ul style="list-style-type: none"> <li>• Weak legal framework for incentivizing the promotion of NbS in urban planning.</li> <li>• Limited knowledge on the potential of green infrastructure and hybrid solutions for the reduction of climate impacts.</li> <li>• Limited engagement with other key stakeholders to mobilize climate finance and lack of knowledge on innovative financial mechanisms.</li> </ul>	<ul style="list-style-type: none"> <li>• Build upon the lessons learned from the CityAdapt 1.0 project and upscale the results</li> <li>• Engage actors from the industry and engineering sectors to ensure the mainstreaming of NbS in infrastructure design and construction</li> <li>• Align with the National Adaptation Plan to ensure project results are upscaled.</li> </ul>
<b>Honduras</b>	Secretary of Natural Resources and Environment.	3 participants (2 male, 1 female)	<ul style="list-style-type: none"> <li>• Weak local and national capacities for understanding and using climate risk information in urban planning</li> <li>• Limited resources for resilience building and investment in innovative adaptation solutions.</li> <li>• Inadequate urban infrastructure (drainage, water supply, roads) for the climate risks</li> </ul>	<ul style="list-style-type: none"> <li>• Develop guidelines and methodologies for integrating NbS in urban planning to be adopted for all cities in the country</li> <li>• Align with the National Adaptation Plan to ensure project results are upscaled.</li> </ul>
<b>Guatemala</b>	Ministry of Environment and Natural Resources	4 participants (0 male, 4 female)	<ul style="list-style-type: none"> <li>• Lack of climate risk and vulnerability information to inform adaptation planning at city level</li> <li>• Limited capacities to understand and use climate risk information in urban planning.</li> <li>• Limited local knowledge and experience on</li> </ul>	<ul style="list-style-type: none"> <li>• Develop guidelines for integrating NbS in urban planning to be adopted for all cities in the country.</li> <li>• Strengthen capacities at national and local level to ensure effective mainstreaming of NbS</li> </ul>



			innovative adaptation solutions such as NbS. <ul style="list-style-type: none"> <li>• Inadequate urban infrastructure (drainage, water supply, roads) for the climate risks.</li> </ul>	in urban planning nation-wide.
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**Table 9. Summary of city-level consultation process with national and municipal stakeholders**

<b>El Salvador</b>				
San Salvador Metropolitan Area – Soyapango y Ilopango	<ul style="list-style-type: none"> <li>- Ministry of Environment</li> <li>- Municipality of Soyapango</li> <li>- Municipality of Ilopango</li> <li>- Community leaders</li> <li>- National Authority of Water</li> </ul>	50 participants (19 male, 31 female)	Floods, landslides, torrential rains	<ul style="list-style-type: none"> <li>• Enhanced stabilization and restoration of upper watershed to reduce potential floods downstream</li> <li>• Engagement with key stakeholders from the private and financial sectors for wider uptake of successful NbS.</li> <li>• Improved policy incentives for integration of NbS in urban planning</li> </ul>
San Miguel	Ministry of Environment Municipality of San Miguel Community leaders	13 participants (6 male, 7 female)	Floods, torrential rains, landslides, limited water availability due to torrential rains and prolonged dry season	<ul style="list-style-type: none"> <li>• Strengthened capacities of local authorities for integration of climate risk into planning</li> <li>• Improved information regarding the climate risks and potential impacts in the city</li> <li>• Resilient infrastructure including drainage system, vial infrastructure</li> <li>• Need for enhanced capacities to understand the financing opportunities and access climate finance.</li> </ul>
La Libertad	Ministry of Environment Municipality of La Libertad Community leaders Authority of Water	21 participants (10 male, 11 female)	Floods, torrential rains, landslides, water availability	<ul style="list-style-type: none"> <li>• Strengthened capacities of local authorities for integration of climate risk into planning</li> <li>• Enhanced resilience of the coastal communities, by reducing coastal erosion and loss of land</li> <li>• Strengthen efforts and financing for mangrove restoration in exposed areas to coastal flooding.</li> </ul>
<b>Honduras</b>				
La Lima <sup>93</sup>	- Municipality of La Lima	23 participants (14 male, 9 female)	Floods, torrential	<ul style="list-style-type: none"> <li>• Integrate the climate change component into the Plan for Municipal Development</li> </ul>

<sup>93</sup> For logistics reasons, the consultation workshops for La Lima and Choloma were held together with separate workgroups.

	<ul style="list-style-type: none"> <li>- Municipality of Choloma</li> <li>- Ministry of Agriculture</li> <li>- Ministry of Natural Resources and Environment (SERNA).</li> </ul>		rains, hurricanes	<ul style="list-style-type: none"> <li>• Resilient infrastructure for flood protection</li> <li>• Improved early warning system for floods and access to most vulnerable communities.</li> <li>• Need for enhanced capacities to understand the financing opportunities and access climate finance.</li> </ul>
Choloma	<ul style="list-style-type: none"> <li>- The National Cleaner Production Centre of Honduras (CNP+LH)</li> <li>- Center for the Study and Development of the Sula Valley.</li> <li>- Chamber of Commerce and Industries of Choloma</li> </ul>		Floods, torrential rains, water availability due to torrential rains	<ul style="list-style-type: none"> <li>• Integrate the climate change component into the Plan for Municipal Development</li> <li>• Resilient transport infrastructure to protect key roads, highways and bridges from hurricanes.</li> <li>• Improved early warning system for floods</li> <li>• Improved drainage system</li> <li>• Resilient housing especially for the areas at highest risk of flooding</li> <li>• Need for enhanced capacities to understand the financing opportunities and access climate finance.</li> </ul>
Puerto Cortes	<ul style="list-style-type: none"> <li>- Municipality of Puerto Cortes</li> <li>- Ministry of Natural Resources and Environment (SERNA).</li> <li>- Center for Marine Studies</li> </ul>	20 participants (10 male, 10 female)	Pluvial and coastal floods	<ul style="list-style-type: none"> <li>• Enhanced resilience of the coastal communities, by reducing coastal erosion and loss of land</li> <li>• Revision and update of existing planning instruments with risk and vulnerability maps and information from climate change projections.</li> <li>• Reduce the burden of water runoff after intense rains for the drainage canals via urban parks and permeable pavements.</li> </ul>
<b>Guatemala<sup>94</sup></b>				
Guatemala City	<ul style="list-style-type: none"> <li>- Municipal Environment Directorate (DMA)</li> <li>- Urban Planning Directorate (DPU)</li> <li>- Municipal Women's Directorate (DMM)</li> </ul>	25 participants (13 male, 12 female)	Floods, torrential rains, limited water availability due to prolonged dry season	<ul style="list-style-type: none"> <li>• Strengthened capacities of local authorities for integration of climate risk information into planning</li> <li>• Resilient drainage system to support the increased water runoff from intense rainfall considering urban NbS</li> <li>• Enhanced water storage to support the increased demand for water during prolonged dry periods</li> </ul>

<sup>94</sup> A field visit to Guatemala was conducted in October 2023, however due to socio-political circumstances, the access to Escuintla and Port San Jose were limited and the stakeholder consultation did not take place. The summary of the presentation is on the basis of virtual workshop which took place in June 2023. For the Municipality of Guatemala, the workshop in person was possible.

	<ul style="list-style-type: none"> <li>- Municipal Geographic Information Directorate (DIGM)</li> <li>- Social Development Directorate (DDS)</li> <li>- Municipal Water Company (EMPAGUA)</li> <li>- General Secretariat of Planning and Programming of the Presidency (SEGEPLAN)</li> <li>- National Coordinator for Disaster Reduction (CONRED).</li> </ul>			
Escuintla	Municipality of Escuintla	4 participants (3 male, 1 female)	Floods, torrential rains, limited water availability due to prolonged dry periods	<ul style="list-style-type: none"> <li>• Strengthened capacities of local authorities for integration of climate risk into planning</li> <li>• Enhanced stabilization and restoration of upper watershed to reduce potential floods downstream</li> <li>• Improved settlements with regards to materials and building practices for areas at high risk of floods</li> </ul>
Port San Jose	Municipality of Port San Jose	3 participants (2 male, 1 female)	Floods, torrential rains, limited water availability due to prolonged dry season	<ul style="list-style-type: none"> <li>• Strengthened capacities of local authorities for integration of climate risk into planning</li> <li>• Enhanced resilience of the coastal communities, by reducing coastal erosion and loss of land</li> <li>• Improved settlements with regards to materials and building practices for areas at high risk of floods</li> </ul>

*Planned engagement with stakeholders during funding proposal development*

99. Once the Concept Note is endorsed by Adaptation Fund, a Project Development Steering Committee will be formed. This Committee will comprise key stakeholders from the national government, municipalities and UNEP. The Committee will oversee the design of the full proposal, including the technical preparation and stakeholder consultations to inform project development and validate the final funding proposal.

100. Stakeholder consultations will be held at the national and municipal level to inform project design. Key stakeholders to be consulted include, among others: community leaders, LCLOs (including women's organizations and indigenous organizations/ representatives, among others), local governments, and private sector companies. Focused consultations on gender, social inclusion and environmental and social safeguards will also be conducted to inform the project design, ensuring it safeguards human rights, is designed to facilitate a transition towards gender-transformative and socially inclusive development pathways, and adequately manages environmental and social risk.
- I. Provide justification for funding requested, focusing on the full cost of adaptation reasoning.**
101. Central American cities have a significant financing gap for addressing climate vulnerability and are hence severely challenged by rising economic loss, also since most loss is uninsured and governments do not have the financial resources or access to contingency financing to absorb losses, recover and rebuild. This implies that taking no action will lead to incrementally increasing costs associated with losses due to storms, floods, and landslides as well as lower economic productivity in the affected areas.
102. The project design fully aligns with national and local government and institutional priorities and are designed to address the barriers and gaps identified in vulnerable cities. This has resulted in the design of a comprehensive and integrated approach in which the different project outcomes are inter-related and strengthen each other, and whose expected outputs and planned activities are meant to fill identified gaps in the Central American in terms of urban climate adaptation and resilience building.
103. In the three project countries, the need to transform urban planning and focus on adaptation and implementation of urban climate adaptation policies and interventions have been widely recognized and commitments have been taken to strengthen coherence and integration between disaster risk reduction, climate change adaptation and ecosystem management; but -given the limited capacity of the countries in term of technical expertise and financial resources- such results have not been achieved and efforts are rather scattered and isolated. The requested funding, therefore, will contribute to (i) strengthening the enabling environment by data and tools, capacities and effective policy instruments; (ii) piloting priority urban adaptation interventions as NbS and resilient infrastructure at multiple-scales that will not only directly address adaptation needs of the most vulnerable in the nine cities but also boost other similar initiatives in urban areas in the region; (iii) mobilizing additional resources at national and local level (iv) promoting the discourse and actions – among the Central American countries – on urban resilience and the sharing of concrete good practices that can be easily replicated in other urban areas and Countries. There is no additional funding needed to be mobilized to achieve the project objectives.
104. The project targets three countries and nine cities over four years for a total project cost of US\$ 14 million. For Outcome 2 will be allocated over half of the direct project costs, directly benefitting the target communities. The impact that the AF funding will have with the NbS and resilient infrastructure investments will be significant for avoiding climate-induced loss and damage in the cities.
105. The project proposal makes detailed observations in other sections regarding the great project potential in terms of economic, social and environmental benefits of the NbS interventions, the underlying climate change hazards and resilience building needs for each target city, as well as cost-effectiveness and sustainability aspects, which are not repeated in this section. Table 10 provides a summary of the justification for funding requested, focusing on a preliminary analysis of cost of adaptation reasoning, by showing the potential impact of the requested AF financing compared to no funding (baseline) related to expected project outcomes.

**Table 10.** *Justification for AF finding requested.*

Baseline (without AF)	Additional (with AF)	Alternative adaptation scenario
<p>Municipal staff, communities and local stakeholders have limited understanding and access to reliable climate information and data at city level, which hinders the development of concrete strategies for adaptation planning and design.</p> <p>Relevant stakeholders have limited knowledge of alternative and more cost-effective adaptation interventions as NbS measures.</p> <p>Municipalities have limited capacities and access to additional resources to promote ecosystem-based urban-adaptation strategies and ensure sustainability to adaptation interventions.</p> <p>As a result, target cities and vulnerable communities are not implementing strategic ecosystem-based interventions focused on enhancing climate change resilience, leading to an increase in future climatic threats (e.g. floods, cyclones, drought, etc.) loss of lives, destruction of property, infrastructure and assets, health risks, crops failure, loss of livelihoods, etc.</p>	<p>Project cities have implemented strategic priority nature-based adaptation investments and activities for enhancing their climate change resilience, especially targeting the most vulnerable urban areas.</p> <p>Municipal staff, communities and local stakeholders in each target city have increased knowledge and capacities on how to effectively plan for adaptation and integrate NbS and this is reflected in changes to relevant planning instruments.</p> <p>The project outcomes benefit the poor and vulnerable population by protecting their lives, property, assets and livelihoods from the impact of climatic threats, and by enhancing their living conditions, especially in terms of access to basic services and resilient infrastructure.</p> <p>Ecosystem-based urban adaptation strategies are at place in the cities with elaborated innovative financial plans, which ensure access to sustainable and innovative financing for sustainability and upscaling.</p>	<p>Alternatively, interventions could focus solely on capacity building and awareness- raising to adapt to climate change. However, the effects of climate change in these cities are predicted to be so severe that, considering the low financial capacity, the lack of skills and the poor living conditions, physical interventions are absolutely needed to protect lives, property, assets, infrastructure and livelihoods.</p> <p>Larger scale interventions (e.g. building protecting infrastructure, or large relocation operations of the population at risk) could also be envisaged, but the costs are prohibitive and they would not respond to the needs of the poor and most vulnerable.</p>

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

- 106. The proposed project incorporates several design features that will ensure the sustainability of activities following project termination. The sustainability of the project's investments will be supported by the: i) active participation of all relevant stakeholders in the decision-making and implementation of the project activities; ii) strengthened the institutional and technical capacity of national and local government to monitor the EbA interventions and maintain the benefits of the interventions; iii) increased public awareness of the benefits of EbA to support and maintain the activities beyond the project lifespan; and iv) collection, analysis, and dissemination of the results generated through the project. Details of these approaches are described below.
- 107. The project's alignment with national strategies, policies, and plans in the three countries will guarantee full country ownership and ongoing support beyond the scope of Adaptation Fund support. The project is aligned with each country's United Nations Sustainable Development

Cooperation Framework (UNSDCF) national priorities. For El Salvador (2022 – 2026)<sup>95</sup>, the project aligns with *Strategic Priority 1* on social inclusion and *Strategic Priority 2* on economic transformation. For Guatemala (2020 – 2025)<sup>96</sup>, the project is aligned with *Area of Work 5* on Environment. For Honduras (2022 – 2026)<sup>97</sup> the project aligns with *Strategic Priority 3* on enhancement of social capacity. To maximize the project’s impact and ensure its relevance to the local context, will ensure to develop a comprehensive strategy that involves close collaboration with the United Nations Country Teams (UNCT) in each country considering data sharing and reporting, capacity building, monitoring and evaluation to enhance sustainability. Adicional sustainability mechanisms encompass:

108. **Local ownership and exit strategy:** The cornerstone of sustainability lies in the active involvement of all relevant stakeholders in the decision-making and implementation of project activities. By engaging local communities, government bodies, indigenous groups, and other stakeholders at every stage, the project fosters a sense of ownership and responsibility. At the local level, the project follows a co-creation approach, ensuring that urban planning and strategies are collaboratively developed with community ownership. This guarantees that the local stakeholders are invested in the project's outcomes. Regionally, the project aims to provide policymakers and urban planners with easy access to the scalable urban climate resilience model through a comprehensive communication strategy. By engaging closely with target cities — particularly local governments, private sector, and civil organizations— throughout the project implementation process, the project will focus on developing capacities to understand climate risk and influence decision making at all levels. In particular, under Outcome 1, the project will co-produce urban climate services based on gender and socially inclusive principles. Youth groups will be actively engaged in the development of relevant applications to enhance equitable access to urban climate services. Additionally, training will focus on building technical skills at the municipal level for the use of the DSS tools and skills for the development of bankable projects focusing on ecosystem-based urban adaptation strategies. This type of intervention aim at increasing ownership by citizens and contribute to the long-term sustainability of project interventions after project closure.
109. **Institutional and technical capacity building:** The project places significant emphasis on building the institutional and technical capacity of national and local governments. This capacity-building process equips these authorities with the skills and knowledge needed to monitor and maintain the NbS interventions introduced by the project. Through the ‘Urban Resilience Teams’ comprised of government personnel and technical staff from institutions involved into urban planning who participate in the co-designing of the DSS, and will eventually manage, use and update the information from the DSS to facilitate the use of this system for state and municipal planning. Promoting and structuring public and private sector investments into NbS. Under outcome 3, the designing of an Urban Adaptation Financing Framework will enable a systematic response to climate adaptation by providing a comprehensive analysis of the adaptation needs in cities and opportunities to mobilize finance via innovative instruments. Such a framework will, in parallel, develop capacities at organisational level (public and private) to enhance access to adaptation finance and the design of innovative risk-informed finance instruments.
110. **Results collection, analysis, and dissemination:** To further reinforce sustainability, the project prioritizes the collection, analysis, and dissemination of results generated through its activities. This involves systematically gathering data, evaluating the impacts of NbS interventions, and sharing these findings with stakeholders. For instance, documenting the

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<sup>95</sup> El Salvador UNSDCF (2022-2026): [https://unsdg.un.org/sites/default/files/2021-11/EI%20Salvador\\_Cooperation\\_Framework\\_2022\\_2026\\_0.pdf](https://unsdg.un.org/sites/default/files/2021-11/EI%20Salvador_Cooperation_Framework_2022_2026_0.pdf)

<sup>96</sup> Guatemala UNSDCF (2020 – 2025): [https://guatemala.un.org/sites/default/files/2021-01/Marco%20de%20Cooperaci%20ONU%20Guatemala\\_0.pdf](https://guatemala.un.org/sites/default/files/2021-01/Marco%20de%20Cooperaci%20ONU%20Guatemala_0.pdf)

<sup>97</sup> Honduras UNSDCF (2022 – 2026): [https://unsdg.un.org/sites/default/files/2021-11/Honduras\\_Cooperation\\_Framework\\_2022\\_2026.pdf](https://unsdg.un.org/sites/default/files/2021-11/Honduras_Cooperation_Framework_2022_2026.pdf)

positive effects of reforestation on local water quality and availability provides tangible evidence of the benefits of sustainable watershed management. These results serve as compelling arguments for continued support and investment in such practices. Regional learning and experience sharing is a cornerstone of the project, it is crosscutting to all the outcomes. Outcome 4 will support the development of innovative knowledge management instruments for information and knowledge sharing, training and exchange of experiences, data collection and analysis, dissemination and capitalization of best practices. As a result, urban communities will increase their understanding of climate change impacts, the benefits and co-benefits of NbS for adaptation purposes, and influence local realities and decision-making processes.

111. Sustainability and maintenance of NbS interventions:

- **Build Local Capacity:** Under Output 2.2, the project will provide training and capacity-building programs to local stakeholders on NbS maintenance. This training will engage community members, municipal staff, volunteers, or local organizations, equipping them with the skills and knowledge needed to effectively manage and maintain NbS interventions.
- **Promote Community Engagement:** Under Output 2.1 and 2.3, the project encourages community engagement and participation in NbS design and implementation activities enhancing community ownership and thus engagement in further maintenance activities.
- **Integrate NbS into Urban Planning:** Under Output 1.3, the project will mainstream NbS into broader urban planning processes to ensure that budget and responsibilities for maintenance considerations are factored into citywide development plans and policies.
- **Climate change impacts:** the potential climate impacts regarding the defined Nature-based Solutions (NbS) will be assessed during the project formulation stage. This analysis will incorporate worst-case scenarios to guide the optimal design of NbS interventions, accounting for potential impacts. Specific protocols for recovery will be established in the case of damage due to extreme events.

112. Financial sustainability:

- **Innovative funding mechanisms:** Under Output 3.1 and 3.2, the project will support local governments in (i) identifying innovative financing mechanisms for NbS interventions. Examples of such instruments are infrastructure levy to finance sustainable transport infrastructure or other public spaces, with NbS components in Bogotá (Colombia)<sup>98</sup> and (ii) enhance capacities of technical staff for the formulation of funding proposals. Both outputs aim to mobilize finance to support NbS maintenance over the long term. This may involve leveraging public funds, securing grants or donations, establishing user fees or levies, or exploring innovative financing models. This will be strengthened with the mainstreaming of NbS in urban policy instruments.
- **Engagement of the private sector:** Under Output 3.3, the project will engage private sector actors and seek partnerships that can provide financial support through direct investments in NbS projects. This may involve funding the implementation and maintenance of NbS interventions in urban areas.

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<sup>98</sup> UNEP, 2023. Nature-based Solutions for Climate Resilient Cities: Perspectives and experiences from Latin America. Available at: <https://wedocs.unep.org/handle/20.500.11822/44437;jsessionid=308EDC5F668F7E468645DE45B7EAB6D4>

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

113. The project is not expected to result in any adverse environmental or social impacts and the risk level in an ESS screening is category C. During the project formulation phase, once there is more information on the project activities the screening tool will be run again and any moderate or high risk areas will be carefully matched with a mitigation plan.

*Table 11. Overview of environmental and social risks.*

Checklist of environmental and social principles	No further assessment required for compliance	Potential impacts and risks – further assessment and management required for compliance
<i>Compliance with the Law</i>	Maybe	The possibility that new relevant legislation may be passed in one or more of the participating countries may require further policy assessment. The AE will closely coordinate with countries' governments to ensure that any envisioned policy change relevant to the implementation for the project will be timely communicated to inform the project design.
<i>Access and Equity</i>	No	Challenges may include disparities in access to information, resources, and decision-making processes, leading to unequal vulnerability and resilience outcomes. The project aims to provide fair and equitable access to NbS and their benefits, including training options, access to information, exchange of experiences, and others. Opportunities to increase the participation of these vulnerable populations in the project will be identified and implemented with the support of the EE.
<i>Marginalized and Vulnerable Groups</i>	Maybe	Marginalized and vulnerable groups may include women and girls, children, the elderly, people living with disabilities, dependent family members, and non-formal workers. Poverty, informality, unemployment, low schooling and geographic location in remote areas could make it difficult for these vulnerable groups to actively participate in the project's activities. The IE will choose EE with demonstrated experience working with marginalized and vulnerable groups and capacity to work in the urban context.
<i>Human Rights</i>	No	No activities are proposed that could present a risk of non-compliance with either national requirements relating to Human Rights or with International Human Rights Laws and Conventions. Rather, the project will support and promote respect for human rights as an integral part of its implementation.
<i>Gender Equity and Women's Empowerment</i>		Women in urban areas often face heightened vulnerabilities as they tend to be more reliant on public services and infrastructure, which are susceptible to climate-related disruptions. Increased frequency of extreme weather events, such as hurricanes and floods, can disproportionately affect women due to their roles as caregivers and providers within households. Women



	Maybe	<p>may also have limited access to resources, making it harder to adapt to changing climate conditions. Moreover, urban women in Central America are often engaged in the informal economy, making them more economically precarious and susceptible to livelihood disruptions caused by climate change.</p> <p>Women tend to be at a disadvantage when it comes to training, technical assistance, entrepreneurship and other opportunities. In Honduras, Guatemala and El Salvador it is evident that there are advances in enhancing the opportunities for women to take part in urban planning processes, however in reality, there is little evidence of effective participatory mechanisms.</p> <p>The project proposal has been designed to be gender responsive and inclusive in all trainings, consultative workshops, planning processes and knowledge-relevant activities. Additionally, the project aims to be gender transformative by creating tailored opportunities responding to the needs and priorities in particular generating green job opportunities for women initiatives.</p>
<i>Core Labour Rights</i>	No	<p>Given the sectors served by the project, finding irregularities with workers' rights might be possible among migrant populations, indigenous people, women, children, and others. Accompaniment and training for project participants involved in local livelihoods will include contents related to formalization, respect for human rights, occupational health and safety and compliance with core labor standards by the ILO and by each country's labor legislation.</p>
<i>Indigenous Peoples</i>	No	<p>The project is consistent with the United Nations Declaration on the Rights of Indigenous Peoples and other applicable international instruments relating to indigenous peoples. The project management will also require the authorization and prior informed consent of the legitimate authorities representing the indigenous peoples/territories. The design and execution of the project's activities will take into account indigenous culture, beliefs, specific characteristics, vulnerabilities and strengths. In those cases where language may be a limitation, cultural intermediaries will be involved.</p>
<i>Involuntary Resettlement</i>	No	<p>The project's outcomes do not involve activities potentially leading to involuntary, physical or economic resettlement of any people settled in or using the area of influence of the project.</p>
<i>Protection of Natural Habitats</i>	No	<p>The project implementation area does not fall in any protected area. The project will promote the integration of good, legally-sound practices and Nature-based Solutions in those livelihoods, thus using natural habitats sustainably, while contributing to their conservation.</p>
<i>Conservation of Biological Diversity</i>	No	<p>The urban context of the nine cities presents limited biological diversity due to the dense construction modality of the urban planning until present. The recommended good practices and NbS will contribute to strengthening the conservation of biodiversity and enhance critical habitats and corridors, including land and coastal-marine ecosystems. The project will avoid the use of any potentially invasive species in the implementation of NbS.</p>
<i>Climate Change</i>	Yes	<p>Climate projections show increasing frequency and intensity of extreme weather events, such as hurricanes, floods, and droughts, which pose significant threats to urban communities. These risks may lead to widespread damage to infrastructure, loss of livelihoods, displacement of populations, and exacerbation of socio-economic inequalities. Additionally, rising temperatures and changing precipitation patterns may impact water resources, agriculture, and public health, further compromising the resilience of urban areas.</p> <p>The project envisions to conduct additional climate impact assessment and modelling to identify potential future impacts on urban systems, communities and infrastructure. The results will inform the design of the NbS interventions and other project activities.</p>
<i>Pollution Prevention and Resource Efficiency</i>	No	<p>The project proposes to apply circular economy principles including the reuse of secondary materials and low-carbon designs and materials to minimize pollution and maximize resource efficiency. Recommended climate practices for local tourism businesses include waste management, recycling, reuse, reduction of food waste, composting, etc.</p>

<i>Public Health</i>	No	The evolution of the health crisis from COVID-19 towards a new scenario of widespread vaccination, foresees that face-to-face attendance will once again be the norm. Project activities such as field trips, interviews, workshops, training, and others will implement the guidelines dictated by the national health authorities in each country. EE will be kept informed and up to date with respect to such guidelines.
<i>Physical and Cultural Heritage</i>	No	The project implementation urban sites do not coincide with Physical and Cultural Heritage.
<i>Lands and Soil Conservation</i>	No	The project includes the implementation of NbS in the livelihoods and value chains, and no risk to land and soil have been identified. On the contrary, solutions for soil conservation are included, such as soil restoration practices and the use of bio-inputs, which will reduce erosion, protect soil biodiversity, increase productivity, and reduce GHG emissions.
<i>Rapid urbanization in high-risk areas</i>	No	Continuous or increasing rapid urbanization trends in the project cities might pose potential risk for achieving the project goal. The project will consider in-depth analysis of the driving forces for urbanization for each of the cities in order to establish a suitable strategy.

The project will establish and ensure the availability of a complaint mechanism that is accessible to all stakeholders involved or anyone wishing to file a complaint related to the project's activities. Information regarding the operation of this mechanism will be widely circulated among project participants, beneficiaries, organizations, and communities potentially affected by project activities. Particular emphasis will be placed on formally communicating the existence of the grievance mechanism and building local capacities to ensure that key implementing entities and stakeholders are informed about potential social and environmental impacts. Efforts will also focus on enhancing their skills in monitoring and ensuring compliance with social and environmental standards.

## PART III: IMPLEMENTATION ARRANGEMENTS

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

114. The project aims to reduce risks and impacts from extreme hydrological events to urban populations and systems. It will achieve this by transforming the current unsustainable and fragmented urban planning trajectories, thus increasing the climate vulnerability and risk exposure of urban communities and infrastructure. It will mainstream a new urban development model in the urban agenda in Central America, based on integrating climate risk factors and ecosystems as a central element in urban planning. The path to this model requires a conducive environment, which implies changes in urban public policies, providing better access to reliable climate information, developing customized decision support tools, strengthening institutional capacities and coordination, impactful investments in urban NbS interventions, and a sound financial strategy. By creating these enabling factors and demonstrating the benefits of NbS the project aims for widespread adoption of ecosystem-based urban adaptation planning, ensuring long-term climate-resilient urban development in Honduras, Guatemala and El Salvador.

*Table 12. Project alignment with the Results Framework of the Adaptation Fund: Outcomes*

Project Objective(s) <sup>99</sup>	Project Objective Indicator(s)	Fund Outcome	Fund Outcome Indicator	Grant Amount (USD)
i) Strengthen decision-making capacities of local and national governments and relevant local actors to plan and manage urban climate risks and vulnerabilities by the design and adoption of NbS.	Positive shift of government institutions towards integrating climate risk information and NbS as central part in long-term urban planning and decision-making in Honduras, Guatemala and El Salvador	<b>Fund Outcome 1.</b> Reduced exposure to climate-related hazards and threats	1. Relevant threat and hazard information generated and disseminated to stakeholders on a timely basis	14.0M
		<b>Fund Outcome 2.</b> Strengthened institutional capacity to reduce risks associated with climate-induced socioeconomic and environmental losses	2. Capacity of staff to respond to, and mitigate impacts of, climate-related events from targeted institutions increase	
		<b>Fund Outcome 7:</b> Improved policies and regulations that promote and enforce resilience measures	7. Climate change priorities are integrated into national development strategy	
ii) Implement cost-effective NbS interventions for climate adaptation and disaster risk reduction in nine cities and enhance adaptive capacity and access to financing strategies for NbS upscaling	Key actors at national and local scales are adopting the NbS interventions for climate resilience at watershed and urban scales in new areas or scaling them up with a gender-inclusive approach.	<b>Fund Outcome 3.</b> Strengthened awareness and ownership of adaptation and climate risk reduction processes at local level	3.2. Percentage of targeted population applying appropriate adaptation responses	
iii) Increase the access of local government institutions and the urban population to financial strategies to scale up the implementation of Nature-based Solutions for urban climate resilience.	Municipalities engaging in innovative adaptation financing mechanisms and partnerships with the private sector for upscaling NbS.	<b>Fund Outcome 5.</b> 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	
iv) Enhanced regional coordination among urban initiatives and shared best practices enhance replication and upscaling of NbS across Central America.	Local and national government agencies and other stakeholders are engaged in a regional collaboration on promoting NbS for urban resilience in	<b>Fund Outcome 8.</b> Support the development and diffusion of innovative adaptation practices, tools and technologies	8.1 No. of new, adapted or improved adaptation solutions developed contextually and with the inclusion of the communities most vulnerable to climate change	

<sup>99</sup> The AF utilized OECD/DAC terminology for its results framework. Project proponents may use different terminology but the overall principle should still apply

	middle cities in Central America.			
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**Table 13. Project alignment with the Results Framework of the Adaptation Fund: Outputs**

Project Outcome(s)	Project Outcome Indicator(s)	Fund Output	Fund Output Indicator
<p><b>Outcome 1.</b> NbS interventions for climate resilience are integrated as key features into urban plans and policies in nine cities and nationwide in Honduras, El Salvador and Guatemala.</p>	<p><b>Local level: 1.1</b> No. of urban planning instruments are informed by climate risk analysis and promote gender responsive NbS interventions.</p> <p><b>National level: 1.2</b> No. of key national stakeholders adopt strategies for urban resilience with focus on NbS</p>	<p><b>Fund Output 1.1:</b> Risk and vulnerability assessments conducted and updated.</p>	<p>1.1. No. of projects/ programmes that conduct and update risk and vulnerability assessments (by sector and scale)</p>
		<p><b>Fund Output 7:</b> Improved integration of climate-resilience strategies into country development plans</p>	<p>7.2. No. of targeted development strategies with incorporated climate change priorities enforced</p>
		<p><b>Fund Output 2.1:</b> Strengthened capacity of national and sub national centers and networks to respond rapidly to extreme weather events</p>	<p>2.1.1. No. of staff trained to respond to, and mitigate impacts of, climate-related events (by gender)</p> <p>2.1.2 No. of targeted institutions with increased capacity to minimize exposure to climate variability risks (by type, sector and scale)</p>
<p><b>Outcome 2.</b> Enhanced ecosystem services reduce exposure and vulnerability of urban population and critical infrastructure in nine cities to floods, landslides and water insecurity</p>	<ul style="list-style-type: none"> <li>No. of households and critical infrastructure with reduced exposure to hydrological extreme events.</li> <li>No. of actors adopting the NbS interventions in new areas or scaling them up</li> </ul>	<p><b>Fund Output 5:</b> Vulnerable ecosystem services and natural resource assets strengthened in response to climate change impacts, including variability</p>	<p>5.1. No. of natural resource assets created, maintained or improved to withstand conditions resulting from climate variability and change (by type and scale)</p>
<p><b>Outcome 3.</b> Municipalities are accessing innovative adaptation financing and mobilizing investments from the private sector in NbS for urban resilience</p>	<p>- No. of municipalities engaged in innovative adaptation financing mechanisms and partnerships with the private sector for upscaling NbS.</p>	<p><b>Fund Output 2.2:</b> Increased readiness and capacity of national and sub-national entities to directly access and program adaptation finance</p>	<p>2.2.1 No. of targeted institutions benefitting from the direct access and enhanced direct access modality</p>

<p><b>Outcome 4.</b> Climate resilient urban planning is adopted by additional cities across Central America</p>	<ul style="list-style-type: none"> <li>No. of additional cities across Central America have integrated climate resilient planning in urban development processes.</li> </ul>	<p><b>Fund Output 3.2:</b> Strengthened capacity of national and subnational stakeholders and entities to capture and disseminate knowledge and learning</p>	<p>3.2.1 No. of technical committees/associations formed to ensure transfer of knowledge</p> <p>3.2.2 No. of tools and guidelines developed (thematic, sectoral, institutional) and shared with relevant stakeholders</p>
		<p><b>Outcome 8:</b> Support the development and diffusion of innovative adaptation practices, tools and technologies</p>	<p>8.2 No. of key findings on effective, efficient adaptation practices, products, and technologies generated and/or “learning and sharing” innovation initiatives undertaken</p>

**Implementation arrangements**

- 115. UNEP will implement the project. UNEP will carry out fiduciary and safeguards oversight and provide the necessary scientific expertise and technical support to the project formulation, start-up, implementation, evaluations, and closure. UNEP will implement the project at the regional level from UNEP’s Office for Latin America and the Caribbean.
- 116. At the country level, local organizations, including NGOs, associations, and community groups, will be considered for the local execution of the project. Local partners will be identified via a “Call for Proposals” launched in collaboration with the National Governments during the concept note phase. This process will allow to pre-select several organisations which comply with defined expertise and capacities to be further considered as local implementing partners. UNEP will sign a Project Cooperation Agreement with the Implementing Entities to establish clear roles and responsibilities for executing the above-mentioned project activities and to ensure that the activities are executed in line with AF and UNEP rules, policies, and requirements. Preidentified potential local partners include: **(i) El Salvador:** FUNDASAL, Association for Community Projects (PROCOMES), Planning Office for the Metropolitan Area San Salvador (OPAMMS). These were the main implementing agencies in the CityAdapt project; **(ii) Honduras:** the Ministry of Energy, Natural Resources, Environment and Mines, will play a direct role in project execution; **(iii) Guatemala:** FUNDAECO. Local governments and municipalities will also be involved as potential direct partners in all three countries.
- 117. The Full Proposal document will include a coherent governance/implementation structure from the regional to the local levels based on lessons from previous projects like CityAdapt and Nature4Cities.
- 118. At the regional level, the Interamerican Integrations System (Sistema de la Integración Centroamericana - SICA) through the Environment and Development Commission (Comisión Centroamericana de Ambiente y Desarrollo - CCAD) will play an important role concerning the regional coordination and mainstreaming results from this initiative into the regional strategies for Climate Change and Environment (ERCC, currently under revision). The Project will engage with key regional research institutions, such as the Tropical Agricultural Research and Higher Education Center (CATIE), located in Costa Rica, for technical support in generating information and providing technical advisory.

119. A Regional Project Steering Committee will be established as part of the implementation arrangements to facilitate cooperation between all project partners and other related initiatives in the region. Local partners will be identified during consultations in project formulation. Partners will have experience in the area and in relevant topics for the project. Since the project intends to be built on the active participation of communities and local organizations, local governance structures will be formed to co-lead/design activities on the ground and mobilize communities for greater reach. These local structures will be based on the local NbS task groups established through CityAdapt and Nature4cities to scale up the work already undertaken in the framework of these initiatives.

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

- A. Record of endorsement on behalf of the government<sup>100</sup>** *Provide the name and position of the government official and indicate date of endorsement for each country participating in the proposed project/programme. Add more lines as necessary. The endorsement letters should be attached as an annex to the project/programme proposal. Please attach the endorsement letters with this template; add as many participating governments if a regional project/programme:*

<b>Miguel Alberto Gallardo Meléndez</b> General Director of Ecosystems and Biodiversity National Designated Authority to the Adaptation Fund Ministry of Environment and Natural Resources (MARN), El Salvador	Date: July 26 <sup>th</sup> 2022
<b>Lucky Halach Medina Estrada</b> Secretary of Natural Resources and Environment, Honduras	Date: July 20 <sup>th</sup> , 2023
<b>Gerson Elías Barrios Garrido</b> Minister of Environment and Natural Resources, Guatemala	Date: July, 18 <sup>th</sup> 2023

- 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*

<sup>6</sup>. 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.

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 of the Adaptation Fund and on the understanding that the Implementing Entity will be fully (legally and financially) responsible for the implementation of this project/programme.

*Name & Signature*  
Implementing Entity Coordinator

Date: February 2024

Tel. and email:

Project Contact Person: Jessica Troni

Tel. And Email: [jessica.troni@un.org](mailto:jessica.troni@un.org)



ADAPTATION FUND

**Letter of Endorsement by Government**

[Secretariat of Natural Resources and Environment of Honduras]

July 20<sup>th</sup>, 2023

To: The Adaptation Fund Board  
c/o Adaptation Fund Board Secretariat  
Email: [Secretariat@Adaptation-Fund.org](mailto:Secretariat@Adaptation-Fund.org)  
Fax: 202 522 3240/5

Subject: Endorsement for the project "Building resilience of urban communities in Central America by leveraging Nature-based Solutions (NbS) for adaptation"

In my capacity as designated authority for the Adaptation Fund in Honduras, I confirm that the above regional project proposal is in accordance with the government's national priorities in implementing adaptation activities to reduce adverse impacts of, and risks, posed by climate change in the region.

Accordingly, I am pleased to endorse the above project proposal with support from the Adaptation Fund. If approved, the project/programme will be implemented by United Nations Environment Programme (UNEP) and executed by State Secretariat of Natural Resources and Environment of Honduras



Sincerely,

**LUCKY HALACH MEDINA ESTRADA**  
**Secretary of Natural Resources and Environment of Honduras**





MINISTERIO DE  
MEDIO AMBIENTE  
Y RECURSOS  
NATURALES

MARN-DEB-119-2023

San Salvador, August 10, 2022

Subject: Endorsement for the regional project "Building Resilience of urban communities in Central America by Leveraging Nature-based Solutions (NbS) for Adaptation".

Mister  
Mikko Ollikainen  
Head of the Secretariat  
Adaptation Fund Board  
Washington, District of Columbia  
United States

Dear Mr. Ollikainen:

In my capacity as designated authority for the Adaptation Fund in El Salvador, I confirm that the above regional project/programme proposal is in accordance with the government's national and regional priorities in implementing adaptation activities to reduce adverse impacts of, and risks, posed by climate change in El Salvador and the region.

Accordingly, I am pleased to endorse the above project/programme proposal with support from the Adaptation Fund. If approved, the project/programme will be implemented by the United Nations Environment Programme (UNEP) and executed by the Ministry of Environment and Natural Resources, El Salvador.

The undersigned is the duly authorized representative of the National Designated Authority of El Salvador.

Yours sincerely

Miguel Alberto Gallardo Meléndez  
Ecosystem Manager  
Ministry of Environment and Natural  
Resources (MARN)  
National Designated Authority to the  
Adaptation Fund



MINISTERIO DE AMBIENTE Y RECURSOS NATURALES  
GUATEMALA, C.A.

*Ministro*

Guatemala, July 18, 2023  
**Oficio MI-1526-2023/GEBC-gpvg**

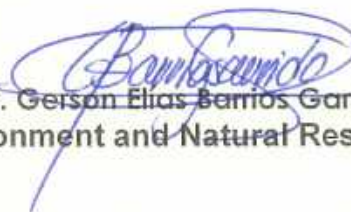
To: The Adaptation Fund Board  
c/o Adaptation Fund Board Secretariat  
Email: Secretariat@Adaptation-Fund.org  
Fax: 202 522 3240/5

**Subject: Endorsement for the regional proposal Building resilience of urban communities in Central America by leveraging Nature-based Solutions (NbS) for adaptation in El Salvador, Honduras and Guatemala.**

In my capacity as designated authority for the Adaptation Fund in Guatemala, I confirm that the above regional project proposal is in accordance with the government's national priorities in implementing adaptation activities to reduce adverse impacts of, and risks, posed by climate change in Guatemala and the region of Northern Central America.

Accordingly, I am pleased to endorse the above project/programme proposal with support from the Adaptation Fund. If approved, the project will be implemented by United Nations Environment Programme (UNEP) and executed by the Ministry of Environment and Natural Resources in Guatemala.

Sincerely,

  
Mr. Gerson Elias Barrios Garrido  
Minister of Environment and Natural Resources





## Project Formulation Grant (PFG)

Submission Date: 10 September 2024

**Adaptation Fund Project ID:** N/A

**Country/ies:** Honduras, El Salvador, Guatemala

**Title of Project/Programme:** Building resilience of urban communities in Central America by leveraging Nature-based Solutions (NbS) for adaptation

**Type of IE (NIE/MIE):** MIE

**Executing Entity:** United Nations Environment Programme (UNEP)

**Implementing Entity:** UNEP

### A. Project Preparation Timeframe

Start date of PFG	1 November 2024
Completion date of PFG	1 November 2025

### B. Proposed Project Preparation Activities (\$)

Describe the PFG activities and justifications:

List of Proposed Project Preparation Activities	Output of the PFG Activities	USD Amount
Full proposal formulation	1-3	47,000
Annexes to full proposal including gender action plan and Environmental and Social Management Plan	1-3	Co-financing
Stakeholder consultation processes in 3 countries	1-3	33,000
<b>Total Project Formulation Grant</b>		<b>80,000</b>

### C. Implementing Entity

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

Implementing Entity Coordinator, IE Name	Signature	Date (Month, day, year)	Project Contact Person	Telephone	Email Address
UNEP Mirey Atallah		10 Sep 2023	Jessica Troni	+254795751062	Jessica.troni@un.org