

Submission by the United Nations Environment Programme (UNEP)

To the United Nations Framework Convention on Climate Change (UNFCCC)

In response to the call for submissions on Santiago Network of the Warsaw International Mechanism in relation to technical assistance provided to developing countries in addressing Loss and Damage - 2021 July

Introduction

UNEP has provided technical assistance to developing countries in addressing losses and damages arising from adverse climate change impacts by taking various approaches. UNEP has supported countries to enhance in:

- 1) Capacity to implement Paris Agreement;
- 2) Access finance and technology for adaptation;
- 3) Increasing the evidence for adaptation;
- 4) Networking and adaptation knowledge exchange;
- 5) Promoting uptake and political action in adaptation

UNEP helps countries to identify Ecosystem-based Adaptation (EbA) opportunities that promise major co-benefit and climate adaptation payoffs through the restoration and protection of key ecosystems and their services. UNEP is currently supporting over 50 Ecosystem-based Adaptation projects, funded primarily by the Least Developed Countries Fund operated by the Global Environment Facility (GEF), the Adaptation Fund and the Green Climate Fund (GCF). Combined, these projects are aiming to restore around 113,000 hectares of ecosystems while benefitting 2.5 million people around the world.

UNEP assists countries all over the world in their efforts to create National Adaptation Plans (NAPs).

UNEP supports 19 countries to advance NAPs which integrate EbA and strengthen countries with institutional arrangements to coordinate NAPs.

Moreover, UNEP is expanding access to sustainable finance through various Funds. For example the Global Ecosystem-based Adaptation Fund, jointly implemented by IUCN and UNEP, was launched in March 2021. The Global EbA Fund provides targeted and rapid seed capital (\$50,000 to \$250,000 per project) to incubate innovative ideas that scale up EbA implementation and that address barriers related to governance, finance, and knowledge management. Another example is UNEP & Climate Technology Centre and Network (CTCN)'s jointly administered \$5-million-dollar small grants programme, the Adaptation Fund Climate Innovation Accelerator (AFCIA).

This submission is structured around linking UNEP's major adaptation work to the focal areas of the Santiago Network, which are as followed:

- Planning and implementation of Ecosystem-based Adaptation and National Adaptation Plan projects;

- Development of knowledge normative adaptation products & Knowledge Analysis & Networking;
- Climate Services/ Early Warning systems;
- Disaster and Conflicts;
- Readiness Technology Needs Assessment (TNA) and technology assistance to countries;
- Sustainable resilient cities and infrastructure

1) Planning and implementation of Ecosystem-based Adaptation and National Adaptation Plan projects supported by Climate Change Adaptation Unit (CCAU), Ecosystems Division

- UNEP currently supports over 50 Ecosystem-based Adaptation projects and 19 National Adaptation Plan projects, assisting member states to put into practice EbA strategies and measures, with funding from the UNFCCC's Least Developed Country Fund administered by the GEF, the Adaptation Fund and the Green Climate Fund (GCF).
- Aiming to restore around 113,000 hectares while benefitting 2.5 million people around the world
- A vital pillar of this work is the creation of "climate-smart" livelihoods, often involving a shift to more sustainable practices that relieve pressure on a given ecosystem while deriving more benefits from it. At times, it may also require diversifying livelihoods completely away from highly climate-vulnerable activities such as rainfed agriculture, allowing stressed ecosystems to recover and continue providing their services.
- Climate Change Adaptation Unit's project portfolio covers a range of ecosystem services, including coastal restoration in the Seychelles and Albania through planting of mangroves to protect against projected increased occurrence of extreme weather events, such as cyclones, and raising sea-levels. Increasing livelihoods dependent on tourism and fishing that are supported by the ecosystem services are central to the approach.
- Other examples relate to reforestation and afforestation of water catchment areas as part of integrated water resource management initiatives using climate resilient tree species, including agroforestry approaches as applied in Cambodia and Comoros. Also similar approaches applied in drier biomes in Gambia and Sudan.
- Increasingly UNEP is supporting the analysis of EbA results in terms of ecosystem restoration and livelihood benefits and will focus in undertaking economic assessments to demonstrate net benefits of EbA approaches in order to promote upscaling of the approach within local and national development planning processes. UNEP aims to capture relevant knowledge and practice to better inform evidence-based policymaking efforts for use by national and international policymakers as well as other national and international actors, NGOs, and intergovernmental organizations working in the climate change adaptation field.
- **Early Warning Forecasting:** UNEP works all over the world to enable and increase access to forecasting in order to strengthen disaster response options and improve local adaptation efforts. This includes strengthening media and local communication networks to ensure climate forecasts reach vulnerable communities, and installing over 80 weather moni

toring stations across 8 countries, benefiting more than 16,000 people. For example, in Gambia, UNEP has helped the Gambian government to provide meteorological stations, training and communication support in fourteen pilot villages, enabling community members to receive and act on vital weather alerts.

National Adaptation Plan (NAP) projects supported by Climate Change Adaptation Unit

- As of July 2021, UNEP supports 19 national governments to advance their national adaptation planning processes, with financing from the Green Climate Fund and the GEF's Least Developed Country Fund (LDCF). Furthermore, in collaboration with UNDP, UNEP is implementing the National Adaptation Plan Global Support Programme (NAP-GSP), funded by the Global Environment Facility (GEF). NAP-GSP Programme identifies technical, institutional and financial needs to integrate climate change adaptation into medium and long-term national planning and financing and offers trainings and technical support to Least Developed Countries in their NAP processes. On that note, UNEP is part of the UNFCCC LEG NAP technical working group.
- UNEP's focus is to strengthen capacities to generate medium to long term climate science evidence to inform NAP policy and planning, support the ministry responsible for climate change adaptation to engage in a consultative process with all key stakeholders different ministries, local governments, civil society partners, academia and private sector entities including chambers of commerce and similar economic groupings.
- UNEP supports countries to conduct economic appraisal of adaptation options for prioritization into the NAP and assist the better integration of adaptation priorities into national and subnational development planning, budgeting, implementation and monitoring systems, and sector policies, plans and budgets.
- UNEP is strengthening its engagement to support NAP processes to contribute to country level COVID-19 response strategies. In line with UNEP support to Member States and partners to "build back better" as governments initiate stimulus packages to support job creation, poverty reduction, development and economic growth by promoting green investments, sustainable production and consumption and climate change mitigation and adaptation.
- As an example, Eswatini's NAP process is expanding climate vulnerability assessments to capture COVID-19 impacts, prioritising resilient investments for those unemployed due to pandemic lockdowns, including highly vulnerable groups, such as the poor, women, disabled persons, residents of crowded urban areas, and informal workers. As part of this response, the Eswatini NAP project supported by UNEP will map communities in need of immediate assistance, identify entry points for rapid action to support those vulnerable groups with local food production activities and sustainable livelihoods that also help building climate resilience.

Read more about [UNEP Climate Change Adaptation Unit's work on National Adaptation Planning \(NAP\) process that offers to support national post- COVID19 recovery efforts.](#)

2) Development of normative adaptation knowledge products & Knowledge Analysis & Networking

Global Adaptation Network (GAN)

Founded by UNEP in 2010, the Global Adaptation Network (GAN) provides a worldwide platform to distribute and exchange climate change adaptation knowledge in a variety of ways to share adaptation best practices. As an umbrella organization spanning most continents, GAN is composed of regional networks and partners, each of which provide knowledge services in their respective regions, feeding into key international processes.

GAN Secretariat, located within the CCAU, is facilitated through the engagement with GAN's regional networks:

- **The Asia Pacific Adaptation Network (APAN)**
 - APAN is a regional programme for managing and applying adaptation knowledge in the Asia-Pacific region with the aim to support adaptation actors in enhancing knowledge, access to finance, technologies and capacity building for integrating adaptation into national policies and planning.
 - The network's flagship event, [7th APAN Forum](#) under the theme of *Enabling Resilience for All: The Critical Decade to Scale-up Action* was organized on 8-12 March 2021. [UNEP and IUCN co-led one of the key thematic streams that focused on Nature-based Resilience](#) and convened five technical sessions (with a focus on governance, Planning & Processes, Science & Assessments and finance) engaging a wide range of stakeholders working on EbA and nature-based solutions in the Asia-Pacific region.

- **Regional Gateway for Technology Transfer & Climate Action in Latin America and the Caribbean (REGATTA)**

REGATTA's objective is to strengthen capacity and knowledge sharing of climate change technologies and experiences for adaptation and mitigation in Latin America and the Caribbean. Its design and development are aligned with the international climate change negotiations in the context of the UNFCCC.

- **Ecosystem-based Adaptation for Food Security in Africa Assembly (EBAFOSA)**

EBAFOSA provides a convening platform for both state and non-state actors engaged in Ecosystems Based Adaptation (EbA) application especially in the agro-value chains across Africa, as well as other areas that are enablers of EbA in Africa – including markets, clean energy, finance, research and policy. This network aims to cross-hybridize lessons, new knowledge, and innovations at the policy and operational levels in EbA to enhance application of EbA as an investment to realize socioeconomic priorities. To date, EBAFOSA is active in 20 countries and has been growing its network.

- **The West Asia Regional Network on Climate Change (WARN-CC)**

The West Asia Regional Network on Climate Change (WARN-CC) aims to enhance capacities to integrate climate change into national development and to formulate and implement national climate change programmes, through mobilizing knowledge, technology and resources in West Asia. WARN-CC has established a core network of national climate change focal points, facilitated meetings between these stakeholders.

- **EcoAdapt in North America**

EcoAdapt was founded to offer adaptation support, training, and assistance to make planning and management outcomes less vulnerable to climate change in the North America region.

GAN has a unique relationship with the UNFCCC through a variety of linkages, including the [Lima Adaptation Knowledge Initiative \(LAKI\)](#), joint action pledge, under the [Nairobi Work Programme](#), between UNFCCC and UNEP, through GAN and its regional networks to identify, prioritize and close adaptation knowledge gaps, accompanied by science-policy-practice dialogue. LAKI catalyses the implementation of actions to close the gaps through regional partners' partnerships. As of August 2021, LAKI has been covered a total of 52 countries, and a total of 150 priority adaptation knowledge gaps were identified.

Nairobi Work Programme (NWP) LAKI workshops in 2021 (led by GAN on behalf of UNEP)

- The 1st [LAKI Pacific SIDS workshop](#) (23-26 February, 2021) was jointly organized by UNEP, SPREP and the UNFCCC Secretariat to prioritize knowledge gaps for target knowledge users in Pacific Sub-region.
- The 2nd LAKI MENA [technical meeting](#) (March 23-25, 2021) experts from different agencies in the North African and Gulf Cooperation Council (GCC) subregions identified and discussed key collaborative initiatives.
- The 3rd [LAKI MENA technical meeting](#) (May 5, 2021)

Moreover, GAN is partnered with the **EPIC (Educational Partnerships for Innovation in Communities) Network** to increase city resilience through the establishment of university-city partnerships globally. It draws upon the knowledge and expertise residing in the faculties and students of local universities to address real life issues of urban sustainability and urban adaptation.

- With the support from the GAN Secretariat, 1 global and 2 regional trainings were held (over 61 pairs of local government and university officials attended and joined the EPIC-N). GAN has supported for developing the [EPIC-Africa regional network](#) and [EPIC Durban program](#) in South Africa that resulted in development of city's Disaster Risk Reduction and Response plans
- Recently, [GAN significantly supported the launch of the EPIC-Asia network and virtual EPIC-Asia Workshop](#) (25-27 May, 2021) where representatives from 32 Asian city and university partnerships participated in a pioneering initiative that matches climate resilience and adaptation challenges in cities with local university departments and students. This event is being developed in collaboration with EPIC-N, GAN and [Global Change System for Analysis](#),

Research and Training (START) with the support of the Ministry of the Environment of Japan.

GAN communication products/activities are as followed:

- **The Resilience Podcast** (Autumn 2021)
- **Webinars** – GAN regularly hosts webinars to share key knowledge and expertise with the aim of accelerating adaptation action. GAN hosted a [webinar](#) on how to enhance Ecosystem-based Adaptation in National Adaptation Plan.
- **GAN Newsletter** (Every two months)
- **GAN Reading List** (monthly)
- **Sessions at Conferences** that GAN contributed – GAN has presented on adaptation at events in 2020, including the Making Cities Resilient Conference, the 6th EbA Knowledge Day, and ICLEI's Daring Cities. In 2021, GAN organized and presented at a number of international conferences on adaptation:
 - [7th EbA Knowledge Day: Challenges of scaling up and financing EbA](#) (26th May 2021)
 - [Challenges of Scaling Up and Financing EBA in Africa: The Role of Innovation](#) at the 15th International Conference on Community-based Adaptation to Climate Change (16th June 2021)
 - [Gobeshona Conference](#) session: "Building climate change resilience in cities and urban areas through Ecosystem-based Adaptation (EbA)" (19th January, 2021)
 - The 7th APAN Forum session: "[Integrating nature-based and ecosystem-based elements in national adaptation planning](#)" (9th March, 2021)

Read more about [What We Do](#) in GAN.

2. Climate Services/EWS;

The [World Adaptation Science Programme \(WASP\)](#) bridges climate adaptation knowledge gaps, with a particular focus on policy-relevant science for decision-makers, while giving priority to knowledge needs in vulnerable developing countries. WASP is co-led by UNEP, WMO, UNFCCC, IPCC, GCF, GEF, and UNU. WASP has an international panel with world-leading experts. The core vision of the WASP is ensuring climate adaptation knowledge gaps are filled for policy-makers in governments, businesses, and civil society. This vision is implemented through WASP products and services:

- [Adaptation Futures Conference](#)
- [WASP Science for Adaptation Policy Briefs](#)
- [Research Directions and Learning Agendas](#)
- [The UNEP flagship Adaptation Gap Report](#)

Climate Services and Capacity Building Unit (CSCBU), UNEP's Science Division

Since August 2018, the Climate Services and Capacity Building Unit (CSCBU) has developed a portfolio of ten Climate Information and Early Warning Systems (CIEWS) projects and/or concepts for the Green Climate Fund (GCF) covering 16 developing countries, Least Developed Countries and Small Island Developing States (SIDS).

Through its CIEWS portfolio, the CSCBU provides technical assistance to developing countries to avert, minimize and address loss and damage associated with climate change impacts specifically by:

- Enhancing data and knowledge on extreme weather and slow onset events, and non-economic losses (e.g. health impacts) associated with climate change;
- Building risk management capacities from national to local level through improved preparedness and response capabilities;
- Supporting innovative approaches to disaster risk management (e.g., Forecast-based Financing).

In particular, the GCF-funded “Enhancing Climate Information and Knowledge Services for resilience in 5 island countries of the Pacific Ocean” programme approved in November 2020 is expected to reduce the damages and losses incurred through increased frequency and intensity of climate-induced disasters in five Pacific SIDS by 15-30 %.

3. Disaster and Conflicts;

UNEP aims to address the environmental causes and consequences of natural hazards and environmental emergencies and reduce their impacts on vulnerable communities and countries, through sound environmental management, improved preparedness, and environmentally sustainable response and recovery.

UNEP Resilience to Disasters and Conflicts Global Support Branch has carried out following activities through the project, *Upscaling community resilience through ecosystem-based disaster risk reduction*:

- In India, UNEP has supported undertaking of flood risk modeling and developing the training modules on different ecosystem restoration approaches for reducing climate risks. These products are delivered through the Mahatma Gandhi Rural Employment Guarantee Scheme (MGNREGS), the largest employment guarantee scheme in India.
- Ecosystem restoration at the community level has been undertaken in Indonesia, Ethiopia, Haiti, Uganda and India to reduce climate and disaster risk.
- Training and capacity building on [Nature-based Solutions for climate and disaster resilience has been provided through a MOOC](#), through national workshops in different countries, in 5 regional training of trainers, to Ramsar wetland site managers in East-South Asia and to the private sector.
- Work is ongoing with the PEDRR-FEBA- Environment and Humanitarian Action Network (EHAN) working group on providing guidance on integrating EbA/Eco-DRR into humanitarian work.

Discover more about UNEP’s disaster and conflict work here: <https://www.unep.org/explore-topics/disasters-conflicts>

4. Readiness Technology Needs Assessment (TNA) and technology assistance to countries

UNEP DTU Partnership - Technology Needs Assessment Project

- The objective of the TNA project is to assess and articulate countries’ technology needs in relation to climate change adaptation and mitigation. The Technology Needs Assessments (TNA) seeks to promote the transfer of environment friendly technologies and know-how by forming a portfolio of climate technology projects. TNAs provide information about the potential, ability

and scale of climate technologies, and they can play a unique role in the formulation and implementation of NDCs.

- During their TNA process, countries work on the development of Technology Needs Assessment reports, Barriers Analysis & Enabling Frameworks reports, and Technology Action Plans (TAP). 71 countries prioritized key adaptation sectors and technologies to enhance resilience to climate change.
- Access the publications here: <https://tech-action.unepdtu.org/resources/>
- Access the success-stories brochures, to read examples of countries implementing climate technologies based on their TNA work:
https://techaction.unepdtu.org/resources/?fwp_content_type=tna-story

UNEP Climate Technology Centre and Network (CTCN)'s projects

[CTCN](#) has large experience in delivering the mandates of the COP and the parties specifically in the following areas :

- *Avert loss and damage*: Through climate smart sustainable development, risk assessment, improved agriculture practices and varieties, resilient infrastructure standards, city design etc.
- *Minimize loss and damage*: Through disaster risk assessment, disaster prevention, soil and water conservation, flood defenses, disaster preparedness planning etc.

CTCN has delivered more than 250 technical assistance and capacity building project in developing countries and specifically 80 in LDCs and 33 in SIDS. Around 20% of the technical assistance delivered by the CTCN is on Disaster Risk reduction approach, additionally 20% of the technical assistance used community-based approach to identify technologies and best practices. To access information about specific examples of technical assistance provided by the CTCN, please contact us.

5. Sustainable resilient cities and infrastructure

- [Smart, Sustainable and Resilient cities: the Power of Nature-based Solutions - A working paper for the G20](#) investigates the potential of nature-based solutions (NbS) to help build smart, sustainable and resilient cities. It draws from more than a decade of research and experience from G20 countries and beyond. It is informed by the rich discussions held by the energy and climate working group of the G20 in March and April 2021, as well as collateral events organized on 16 and 23 April 2021 by the Italian Presidency with the support of UNEP and UNDP.
- The publication can be considered as a good technical guideline for Santiago Network's countries that might be keen to obtain information of the practices of urban NbS to make cities more climate-resilient.

The proposed way forward to collaborate with the Santiago Network

- Science and Knowledge remains a key priority for the Executive Committee of the Warsaw International Mechanism for Loss and Damage. UNEP's niche in science on climate impacts, loss to ecosystem services and residual risks interacting with slow and extreme climate events would be useful to support that stream of work.

- Contribute UNEP’s work on Environment Security and Fragility and risk reduction to the Santiago Network
- Consider bringing UNEP into the loss and damage discussions across different expert groups under the Santiago Network, especially on addressing L&D through ecosystem-based approaches
- UNEP can share lessons learned on non-economic losses from the UNEP’s project portfolio

Resources and Websites:

The key normative adaptation knowledge products are as followed:

- [MOOC on Nature-based Solutions for Disaster-risk Reduction](#)
- [UNEP-WCMC briefing note series for ecosystem-based adaptation](#)
- Guidelines for Integrating Ecosystem-based Adaptation into National Adaptation Plans: Supplement to the UNFCCC NAP Technical Guidelines (Expected release date: August- September 2021). This guideline aims to support LDCs programme and design NAPs linked to EbA and in so doing support the work of the LEG. It’s a useful resource for national teams in charge of the formulation, implementation and review of the NAPs, who may be interested in considering ecosystem-based approach to climate change adaptation.
- [Ecosystem-based Adaptation](#) - Implementing projects that utilize biodiversity and ecosystem services as part of a holistic adaptation strategy.
- [Knowledge, analysis and networking](#) - Spreading vital adaptation knowledge through well-connected global networks, such as the [Global Adaptation Network](#).
- [National Adaptation Plans](#) - Supporting countries to advance their National Adaptation Plan process.
- [Access to adaptation finance](#) - Helping governments and partners all over the world to obtain funding for climate resilience
- [Climate adaptation project list](#) - Supporting projects on Ecosystem-based Adaptation, National Adaptation Plans, Early Warning Climate Systems, and more.
- [Climate adaptation resources & multimedia](#) - Producing a wide range of communication and knowledge products to improve understanding and accelerate action.

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