



UNEP & Climate Adaptation What We Do



The Challenge

Climate change is already impacting every country on earth. According to a [2022 report](#) from the Intergovernmental Panel on Climate Change (IPCC), increased weather extremes have already exposed millions of people to water and food insecurity, and the cascading impacts have led to higher mortalities, conflict, and an increased risk for zoonotic diseases to emerge. Climate change is not a future prospect. It is here and now.



Building the resilience of local communities in Zambia through the introduction of ecosystem-based adaptation into priority ecosystems, including wetlands and forests. Photo: UNEP/Georgina Smith

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During the Paris Climate Accord in 2015, world leaders agreed to a historic deal by committing to limit the rise in global temperatures to "well below" 2 degrees Celsius, preferably under 1.5 degrees Celsius (compared to pre-industrial levels), and to put into place plans and actions for tackling the climate crisis. Now, seven years later, although progress is being made, the global temperature has increased to 1.2 degrees Celsius, while carbon dioxide and other greenhouse gas emissions are still steadily rising.

The [State of Global Climate 2021](#) report by the World Meteorological Organization indicates there is now a

50:50 chance of the annual average global temperature reaching the 1.5°C level for at least one of the next five years – and the likelihood is increasing with time. The world's most vulnerable populations, who have contributed the least emissions, will be hit the hardest from the resulting impacts on food, water and jobs. It is now clear that cutting greenhouse gas emissions is no longer enough. We must also adapt to a changing climate that is already here.

However, only around 10% of the world's total climate finance of USD 632 billion is currently committed to adaptation, with the remaining 90% mostly devoted to mitigation (i.e. reducing atmospheric

greenhouse gases). The UN Secretary General Antonio Guterres is now [urging world leaders](#) to redress this balance, and ensure 50% of climate finance is committed to adaptation and building resilience. The UN Environment Programme's extensive

experience and expertise in climate adaptation will be vital for guiding these new investments to protect everyone from an ever-looming climate breakdown and ensure that no one is left behind in the race to build resilience.

UNEP's Medium-Term Strategy 2022-2025

UNEP's Medium-Term Strategy 2022-2025 outlines three planetary crises: pollution, nature and climate. The Climate Action objective is defined as "where net zero greenhouse gas emissions and resilience towards climate change are achieved."

The Climate Action programme in particular will focus on UNEP's comparative advantage to achieve three 2025 outcomes:

Outcome 1: Decision makers at all levels adopt decarbonization, dematerialization and resilience pathways

Outcome 2: Countries and stakeholders have increased capacity, finance and access to technologies to deliver on the adaptation and mitigation goals of the Paris Agreement.

Outcome 3: State and non-state actors adopt the enhanced transparency framework arrangements under the Paris Agreement.

UNEP's work in climate adaptation places a large emphasis on the power of ecosystems and nature-based solutions for protecting people from extreme weather. This work is further strengthened by UNEP's lead role in the UN Decade on Ecosystem Restoration, and its global mandate to protect, manage and restore ecosystems all over the world. Therefore, while UNEP's adaptation programming primarily contributes to the above Climate Action pillar, it also supports all three outcomes under the Nature Pillar.

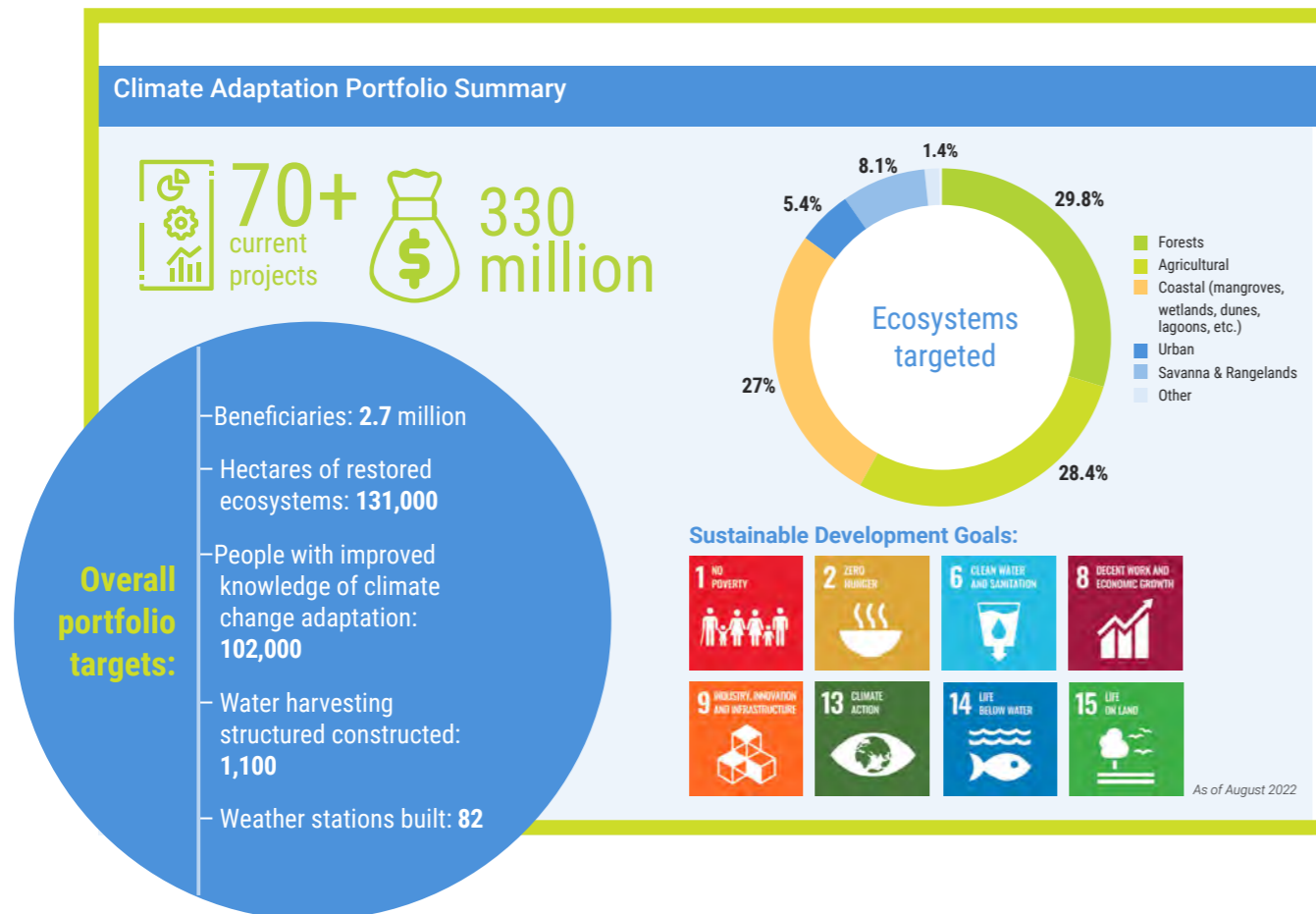
For People and Planet

The United Nations Environment Programme strategy for tackling climate change, biodiversity and nature loss, and pollution and waste from 2022–2025.



Climate Adaptation Project Portfolio Summary

Since 2010, UNEP has assisted over 70 projects on climate change adaptation in over 50 countries. As of 2022, combined, these projects aim to benefit around 2.7 million people, restore 131,000 hectares of land, improve climate adaptation knowledge of 102,000 people and 131 institutions, and build over 1,100 water harvesting structures and 82 weather stations. [Find the full project list here.](#)



UNEP's climate change adaptation projects



Project Type : ■ National Adaptation Plan ■ Ecosystem-based Adaptation ■ Early Warning Systems ■ NDC Action ■ Other

Key Areas of Work

UNEP is aiming to achieve the Climate Action objective defined in the Medium-term Strategy through a multi-pronged approach, including areas of work such as:

1. Science, Analysis & Partnerships
2. Ecosystem-based Adaptation
3. Early Warning Systems & Climate Services
4. Adaptation Finance
5. Supporting National Adaptation Plans
6. Water Services and Security
7. Cities and the Built Environment

1. Science, Knowledge & Partnerships

UNEP generates a wide range of science, knowledge products, and analyses to support countries in their efforts to build climate resilience. For instance, UNEP's flagship *Adaptation Gap Report* series focuses on finance, technology and knowledge gaps in climate change adaptation. The latest edition in 2021 explored the global recovery from COVID-19 and its implications for adaptation action and progress. Furthermore, using

knowledge and evidence from practice, UNEP engages and mobilizes stakeholders to influence national and global climate change policies and decision making processes.

With over 50 ongoing climate adaptation projects, UNEP produces and shares knowledge of adaptation solutions and best practices by collecting lessons learned and case studies, such as *Forestry in the Gambia: a climate adaptation case study* or *Lessons Learned: Ecosystem-based Adaptation and an Integrated Resilient Rice Model in Madagascar*.

UNEP's climate adaptation resources and multimedia – whether it is key adaptation reports, practical guides, implementation protocols, briefing notes or toolkits – can be found easily online at: <https://www.unep.org/explore-topics/climate-action/what-we-do/climate-adaptation/climate-adaptation-resources-multimedia>

You can track the world's progress in tackling climate change through UNEP's *World Environment Situation Room*.

Climate Adaptation Knowledge Platforms & Initiatives

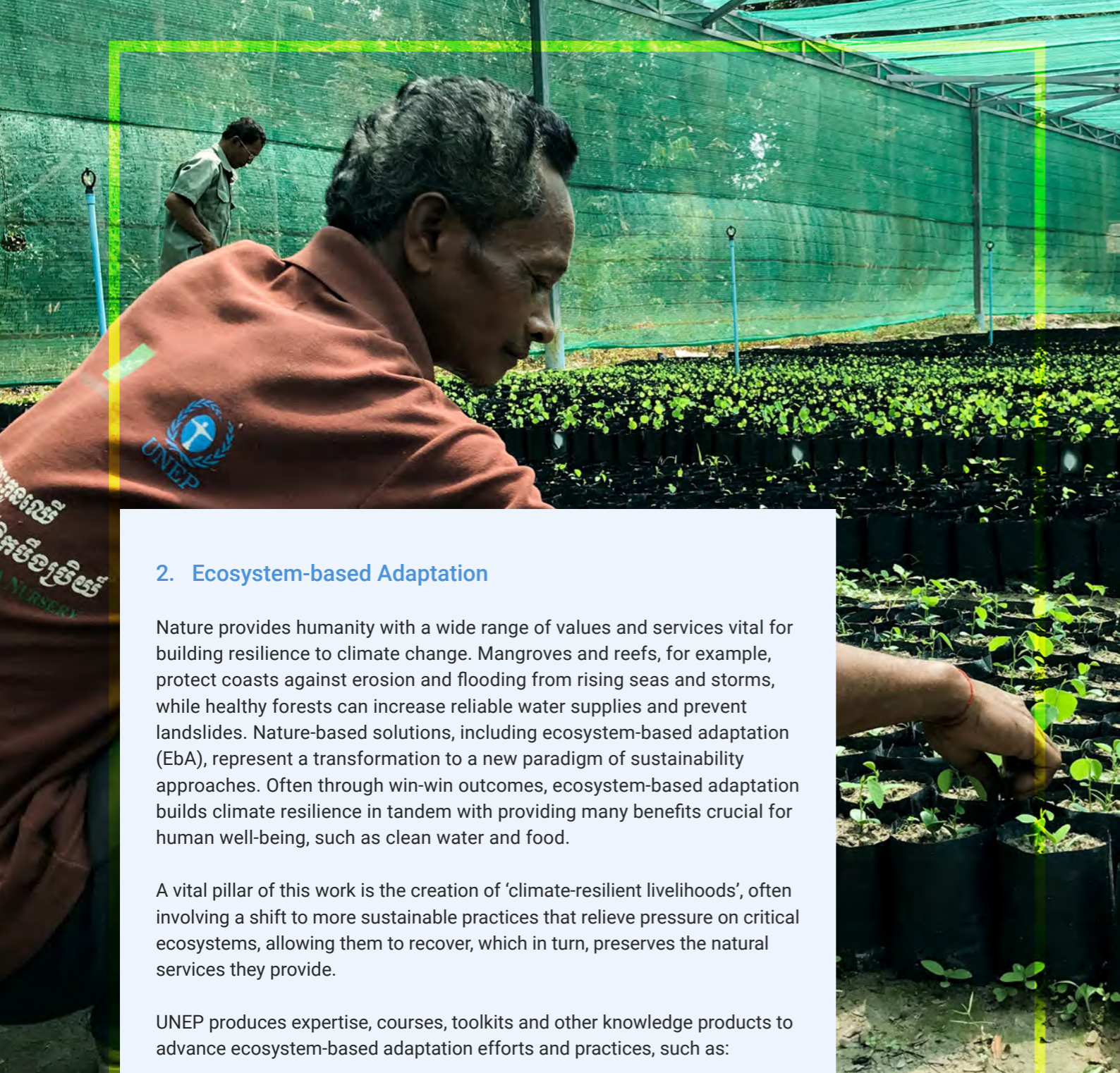
Global Adaptation Network

Founded in 2010, the *Global Adaptation Network (GAN)* provides a worldwide platform to distribute and exchange climate change adaptation knowledge. As an umbrella organization spanning most continents, GAN is composed of many regional networks and partners, each of which provides knowledge services in their respective regions. These regional networks are:

- **REGATTA** - Regional Gateway for Technology Transfer and Climate Change Action in Latin America and the Caribbean (Latin America & the Caribbean)
- **EBAFOSA** - Ecosystem-based Adaptation for Food Security Assembly (Africa)
- **APAN** - Asia-Pacific Adaptation Network (Asia Pacific)
- **EcoAdapt** (North America)

World Adaptation Science Programme

The *World Adaptation Science Programme (WASP)* bridges knowledge gaps with policy-relevant knowledge products on adaptation finance, technology and knowledge gaps, including UNEP's flagship *Adaptation Gap Report*. WASP has an international panel with a multi-stakeholder governance structure consisting of a Management Group, a Science Committee, and a Policy and Finance Committee. The programme is led by UNEP, the World Meteorological Organization (WMO), the United Nations Framework Convention on Climate Change (UNFCCC), the Intergovernmental Panel on Climate Change (IPCC), the Green Climate Fund (GCF), the Global Environment Facility (GEF) and the United Nations University (UNU).



2. Ecosystem-based Adaptation

Nature provides humanity with a wide range of values and services vital for building resilience to climate change. Mangroves and reefs, for example, protect coasts against erosion and flooding from rising seas and storms, while healthy forests can increase reliable water supplies and prevent landslides. Nature-based solutions, including ecosystem-based adaptation (EbA), represent a transformation to a new paradigm of sustainability approaches. Often through win-win outcomes, ecosystem-based adaptation builds climate resilience in tandem with providing many benefits crucial for human well-being, such as clean water and food.

A vital pillar of this work is the creation of 'climate-resilient livelihoods', often involving a shift to more sustainable practices that relieve pressure on critical ecosystems, allowing them to recover, which in turn, preserves the natural services they provide.

UNEP produces expertise, courses, toolkits and other knowledge products to advance ecosystem-based adaptation efforts and practices, such as:

- [The Ecosystem-based Adaptation Briefing Note Series](#)
- [Guidelines For Integrating Ecosystem-based Adaptation Into National Adaptation Plans](#)
- [Massive Open Online Course: Nature-based Solutions for Disaster and Climate Resilience](#)
- [Ecosystem-based Adaptation Planning: ALivE - Adaptation, Livelihoods and Ecosystems](#)

Enhancing climate change resilience of rural communities living in protected areas of Cambodia.
Photo: UNEP/
Hannah McNeish



UNEP's projects in ecosystem-based adaptation



Ecosystem Type: Forest Coastal Urban Lakes and Lagoons Multiple Ecosystems

3. Early Warning Systems & Climate Services

Just 24 hours warning of an approaching storm or heatwave can reduce the consequent damage by 30 per cent. UNEP works all over the world to increase access to high-quality weather and climate information, forecasting and early warning systems (EWS) to strengthen disaster preparedness and improve local adaptation efforts. These early warnings in turn underpin evidence-based policy and action. Therefore, UNEP helps countries to build automatic weather stations, and strengthen media and local communication networks to ensure climate forecasts reach vulnerable communities.

For example, a transformative new programme was initiated by UNEP and partners in 2020 to establish integrated climate and ocean information services and EWS in five Pacific island countries. The **USD 49.9 million** programme, funded by the Green Climate Fund, will empower vulnerable populations with timely and accurate predictions of hazards to inform decision-making and actions that reduce climate risks and impacts. UNEP's work on EWS is an important contribution to achieving the target set by the UN Secretary General to protect every person on the planet

with EWS within five years (one-third of the world's population are still not covered by EWS). Furthermore, in developing countries, spending USD 800 million on EWS could avoid USD 3–16 billion per year in losses.

4. Adaptation Finance

In partnership with the Global Environment Facility, the Green Climate Fund, and the Adaptation Fund, UNEP helps countries all over the world to access finance for adaptation. In 2022, the total value of the adaptation project portfolio rose to \$330 million, which includes around \$282 million in vertical funds and \$48 million in bilateral funds.

In addition to its adaptation project portfolio, UNEP and IUCN launched the **Global EbA Fund** in 2021 to provide targeted and rapid support mechanisms through seed capital for innovative approaches to ecosystem-based adaptation. Furthermore, UNEP and the Climate Technology Centre and Network (CTCN) are working together to administrate USD \$5million to innovative adaptation practices through a small grants programme known as the **Adaptation Fund Climate Innovation Accelerator (AFCIA)**.

UNEP also works on models for 'blended finance' approaches that:

- explore joint adaptation-mitigation approaches to create investable programmes using cross-subsidization approaches;
- leverage private sector finance through the design of appropriate risk mitigation instruments (e.g. insurance, guarantees, etc.) to create bankable, scalable and replicable programmes;
- create the enabling policy and regulatory environments to establish the fiscal incentives for private sector participation across value chains linked to adaptation action (e.g. subsidies for climate smart technologies).

The **UNEP Finance Initiative** – a global partnership established by UNEP and the financial sector – has been raising awareness of physical climate risks and building climate risk assessment capacities in financial institutions across banking, investment and insurance. In 2022, **UNEP FI** scaled up its support to

help financial institutions access and use climate data, particularly in regions where such data is of poorer quality. UNEP FI will also be reporting on its first global survey of banks on climate adaptation and proposing recommendations on meeting the climate resilience aspect of Article 2.1(c) of the Paris Agreement.

5. Supporting National Adaptation Plans

UNEP helps countries to design **National Adaptation Plans (NAPs)**, which seek to reduce vulnerability to climate change impacts by building adaptive capacity and integrating adaptation into policies and planning at all levels. NAPs are widely seen as one of the most important mechanisms for building climate-resilient development, and as such, UNEP is currently supporting at least 20 countries with NAPs.

In 2021, UNEP published its **Guidelines For Integrating Ecosystem-based Adaptation into National Adaptation Plans**, which has now been transformed into an **online course**.



6. Water Services & Security

To help countries meet the water-related Sustainable Development Goals, UNEP seeks to facilitate measurable and substantive **progress on water management** and freshwater issues at global, regional, and national levels. This includes **helping countries** understand and determine the state of freshwater bodies, supporting the implementation of plans and policies around water resources, monitoring and addressing water quality and pollution, and developing and

disseminating decision support tools that support progress on these targets.

Through our climate adaptation project portfolio on the ground, we are helping governments to build water security infrastructure for climate-vulnerable communities from Jamaica to Tanzania, whether its solar-powered wells, boreholes, conservation ponds, and crucially, rainwater harvesting systems. A total of around 1,100 water harvesting structures are being constructed through these projects, along with **guidance on their usage**.

Building the resilience of local communities in Zambia through the introduction of ecosystem-based adaptation into priority ecosystems, including wetlands and forests. Photo: UNEP/Georgina Smith

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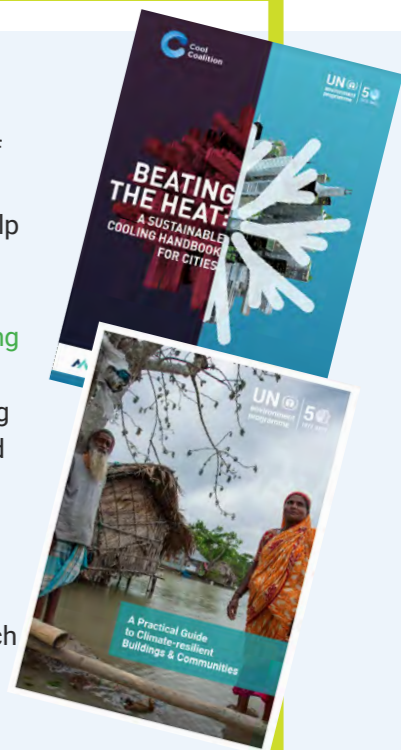
UNEP's National Adaptation Plan projects



7. Cities and the Built Environment

UNEP is helping cities build climate change resilience through the restoration of urban ecosystems, encouraging governments to develop city adaptation plans, investing in urban flood defence technologies, introducing loans schemes to help communities 'hurricane-proof' their homes, and producing practical guidance and expertise through publications such as the **Practical Guide to Climate-resilient Buildings & Communities** or the **Beating The Heat: A Sustainable Cooling Handbook for Cities**. One **UNEP project** in Lao PDR is aiming to reduce flooding for 700,000 people – roughly 10% of the entire population, while **another** is using nature-based solutions and rainwater harvesting systems in Latin American and Caribbean cities to benefit 115,000 people.

UNEP leads global initiatives and programmes that aim to reduce climate impacts in urban environments, such as the **Global Alliance for Buildings & Construction (Global ABC)**, the **UrbanShift** initiative, or the **Cool Coalition**, which recently established an **urban cooling programme** to help cities take action on extreme heat and the rising demand for cooling. The programme will provide technical assistance to 100 urban areas.



UNEP's approach to promoting greater investment in nature for adaptation

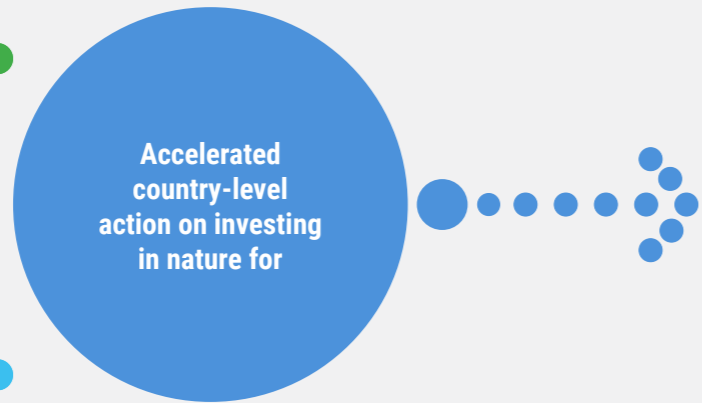
Strengthened UNEP footprint in UNFCCC governance processes



Advocacy and knowledge generation on the value of investing in nature for adaptation



Direct country-level action on investing in nature for adaptation



Impact

SDG progress accelerated

Vulnerability levels reduced

Global climate change stabilized in part due to EbA



Gender Mainstreaming

Gender equality is essential for adaptation progress. In many developing countries, women tend to have primary responsibility for the management of household water supplies, energy and sanitation. Due to cultural and social norms, they tend to be more undernourished than men, despite producing a significant proportion of food in the developing world. Access to land tenure and the benefits from extractive resources are often restricted, and, in many places, women's ability to fully participate in decision-making is limited. The impacts of climate change can amplify these existing gender inequalities. UNEP ensures that country-level adaptation action empowers and benefits both women and men, guided by UNEP's Environmental and Social Sustainability Framework and the UN's guiding principles and standards on ensuring human rights. UNEP advocates setting aside a specific amount of funds for gender-related activities in all its projects.

People living near a community-protected area in Cambodia make roof fronds out of leaves, toothpicks and sticks as part of a project supported by UNEP and partners to help people build alternative livelihoods and decrease logging. Photo: UNEP/Hannah McNeish

Further Resources:

- UNEP's climate adaptation web portal
- Global Adaptation Network
- Adaptation Gap Report 2021
- The Global EbA Fund
- Climate adaptation resources & multimedia

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