

NEPAL

Urban Ecosystem-based Adaptation 2019-2022



SUSTAINABLE DEVELOPMENT GOALS



Increasing water supplies for urban communities by establishing rainwater harvesting systems and infiltration pits for 280 households



Defending cities against the impacts of both floods and droughts by creating urban green spaces and 10,000m³ of water conservations ponds



Protecting around 280 households from climate impacts using ecosystem-based adaptation, while developing a flood management decision toolkit



Planting 4,000 climate-resilient trees on roadsides, riverbanks and in public spaces in urban areas of the Kathmandu Valley

PROJECT TITLE:

URBAN ECOSYSTEM-BASED ADAPTATION FOR CLIMATE-RESILIENT DEVELOPMENT IN THE KATHMANDU VALLEY, NEPAL

EXECUTING ENTITY:



Kathmandu Valley Development Authority (KVDA)

KEY TARGETS:

82,000

Direct beneficiaries from the project's activities

4,000

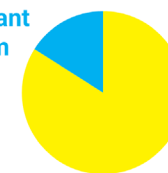
Climate-resilient trees planted on roadsides, riverbanks and in public spaces

30

Hectares of urban land on which ecosystem-based adaptation is implemented

FUNDING:

GEF Grant
\$6.2m



Cofinance
\$32.5m

Supported by the
Least Developed Countries Fund

UN
environment
programme

gef

INTRODUCTION

- Nepal is a landlocked country in South Asia undergoing rapid urbanization, and the Kathmandu Valley is one of the fastest-growing metropolitan areas in the region.
- The impacts of climate change, coupled with inadequate urban planning, are negatively impacting the urban communities in the Kathmandu Valley.
- A new project is using ecosystem-based adaptation (EbA) to increase the resilience of urban communities to the impacts of climate change, such as flooding, landslides and drought.
- The project's main approaches include: mainstreaming EbA into development planning; strengthening EbA knowledge and awareness; and demonstrating the benefits and cost-effectiveness of urban EbA interventions through restoration activities.

TECHNOLOGIES & METHODS

- Urban **ecosystem-based Adaptation (EbA)** is central to the project's activities. EbA is the approach of protecting or restoring ecosystems to reduce the negative impacts of climate change on people.
- To improve groundwater recharge, prevent floods and conserve water, urban EbA interventions are being implemented in 5 public open spaces. This includes establishing urban **green spaces and parks**, rehabilitating an **existing wetland** and restoring urban **community forests**.
- 4,000 **climate-resilient trees** are being planted in roadsides, along riverbanks and in public spaces for soil stabilization. This protects against erosion caused by extreme rainfall.
- **Reports and policy briefs** are being developed to provide recommendations on policies, strategic plans and development budgets

CLIMATE IMPACTS

- Climate change is increasing temperatures and changing rainfall patterns in Nepal. In the Kathmandu Valley, the largest urban area in Nepal, communities are facing an increased frequency of flooding, landslides, and droughts.
- Rapid urbanisation combined with limited urban planning has resulted in communities living in informal settlements in climate-sensitive areas with limited access to basic services (e.g. water, sanitation or waste management), making these communities especially vulnerable to climate impacts.
- The urban expansion in the Kathmandu Valley is compromising the surrounding ecosystems and the goods and services they provide, including the natural climate defences of flood attenuation, soil stabilization and groundwater recharge.

- for the mainstreaming of urban EbA, with a particular focus on highlighting the cost-effectiveness of EbA interventions within the Kathmandu Valley.
- The project is also establishing a **research programme** and a **knowledge-sharing platform** to raise awareness among the local communities and government authorities on climate change impacts and the benefits of urban EbA. The project is raising awareness by implementing EbA in 10 schools from 3 districts.
- An EbA **flood management decision-making tool** based on Geographic Information Systems is being developed for identifying future sites for EbA interventions in 3 municipalities.
- The project is also installing **rainwater harvesting systems** and infiltration pits in 280 households in 5 municipalities, while promoting urban farming and gardening.

PROJECT LOCATION



The project is being implemented in the Kathmandu (blue), Lalitpur (red) and Bhaktapur (yellow) districts in the Kathmandu Valley.

RESOURCES

- [Press release: Nepal uses nature to strengthen resilience against floods and drought](#)
- [UNEP project page](#)
- [What is 'ecosystem-based adaptation'?](#)
- [More climate adaptation resources & multimedia](#)

CONTACTS

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