

Nature based Solutions for Adaptation: UNDP experiences and lessons

APA Webinar: Financing Nature and Adaptation
September 7, 2023

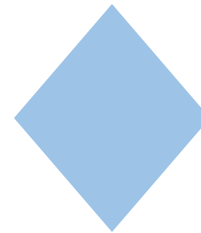
Dr. Radhika Dave, Regional Technical
Advisor, Climate Change Adaptation, UNDP
Climate Hub



What are Nature based Solutions (NbS)?

Nature-based solutions (NbS) are actions to protect, conserve, restore, sustainably use and manage natural or modified terrestrial, freshwater, coastal and marine ecosystems which address social, economic and environmental challenges effectively and adaptively, while simultaneously providing human well-being, ecosystem services, resilience and biodiversity benefits.

– UNEA-5, 2022



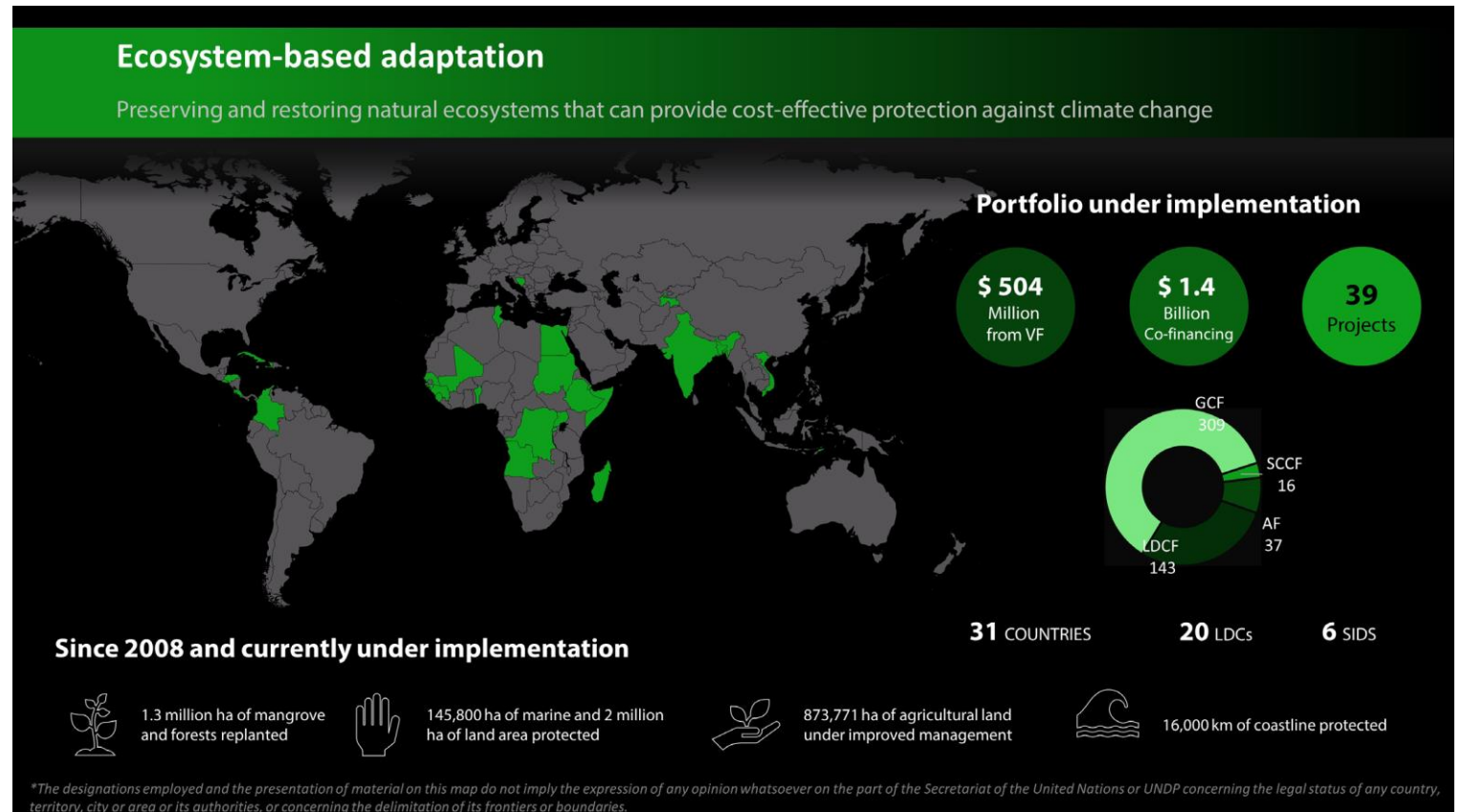
Ecosystem based Adaptation (EbA) approaches - nature-based solutions for climate resilience

EbA is the use of biodiversity and ecosystem services as part of an overall strategy to help people adapt to the adverse effects of climate change - CBD, 2009

Ecosystem-based adaptation in action

Diverse settings across which EbA applications address climate driven hazards for people, improve ecosystem resilience, and generate biodiversity co-benefits:

- Agricultural landscapes
- Forest landscapes
- Wetlands - agricultural mosaics
- Coastal zones, and
- Urban flood risk mitigation



Since 2008, UNDP, with GCF, GEF, AF and bilateral financing, has supported initiatives across 31 countries – bringing 1.3 M ha into restoration, enhancing protection of 2 M ha of land and 145,800 ha of marine areas, and improving management of 873,771 ha of agricultural lands.

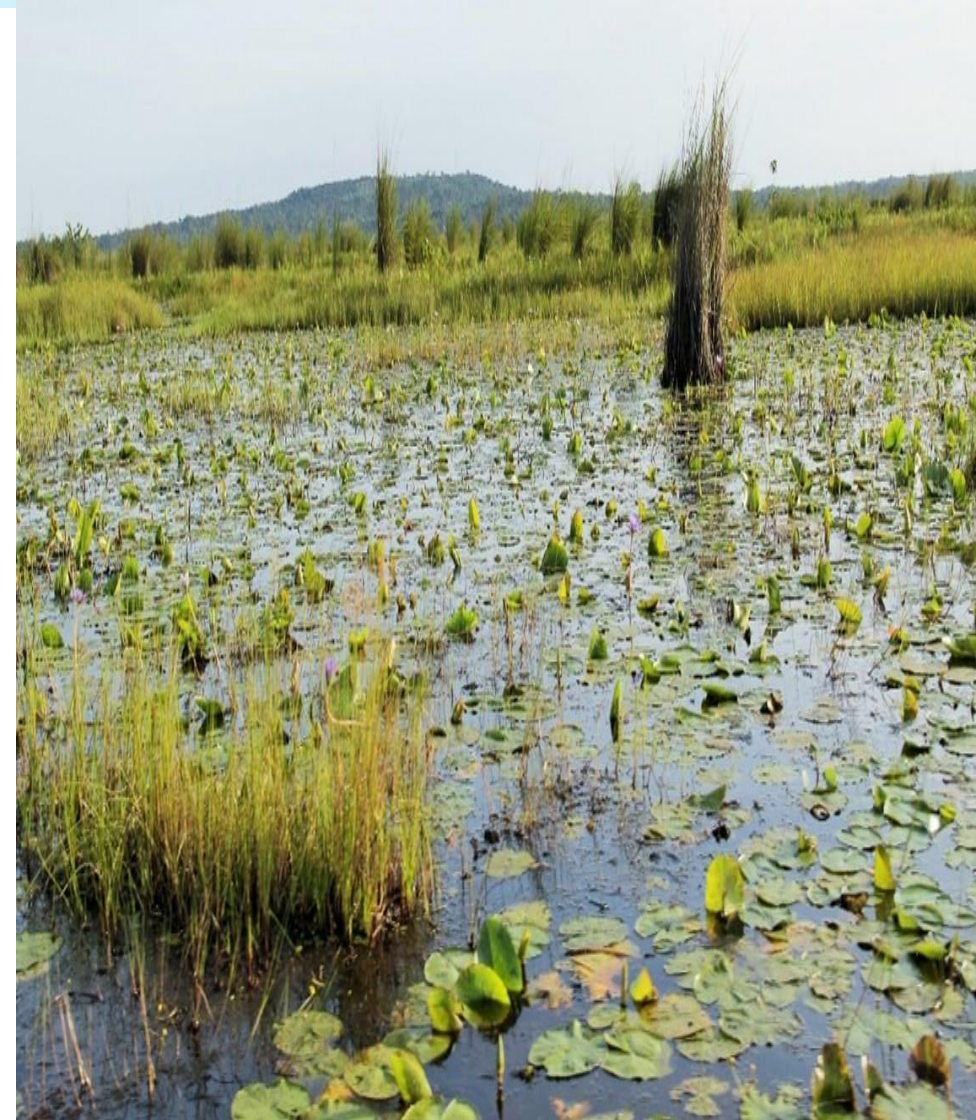
Forests, wetlands and freshwater resources

i. Building Resilient Communities, Wetland Ecosystems and Associated Catchments in Uganda (GCF financing USD 24 M Grant, GoU USD 18 M in-kind co-financing)

- *Address siltation of river channels, agricultural fields, and degradation of wetlands as part of an EbA initiative to build resilience of local farming communities and restore 60,000 Ha of wetlands across 20 districts in Eastern and Southern Uganda*
- Project is expected to deliver increased ecosystem services from the restoration of wetlands: **increased water storage, flood control, increased biodiversity** (birds and fish), helping local communities to adapt to climate impacts.

ii. El Salvador (Adaptation Fund, 8.48 M USD grant)

- Address flood risks, water retention and slope stabilization across 3,865 ha of productive forest landscape through agro forestry, riparian/mangrove forest and silvo pastoral systems.
- Project expected to restore the landscape's capacity for water retention along steep slopes, reducing soil erosion, protect riparian habitat, and increasing the areas productive capacity



Coastal hazard reduction through mangroves and coastal marsh restoration



Cuba (GCF 23.9 M USD grant): Restore 11,000 ha of mangrove and over 3,000 ha of coastal marshes for improved shore stability, support natural regeneration of coral reefs and sea grasses

- direct benefits to coastal aquifers by enhancing fresh-water infiltration, reducing salinization,
- reducing impact of coastal storm surges and protecting lives.

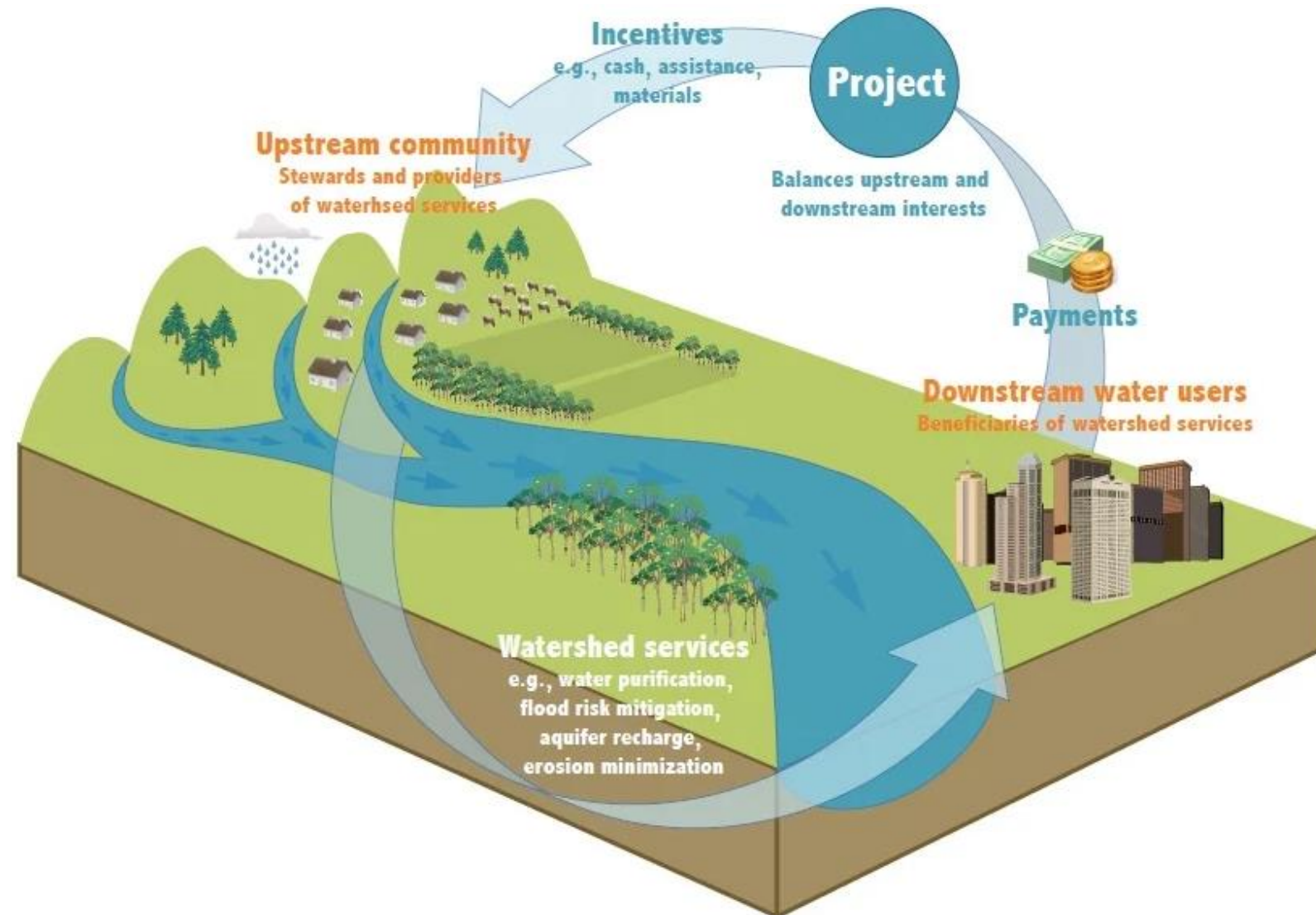
East Timor and Bangladesh (GEF LDCF projects): restore and protect mangroves and coastal wetlands – reducing flood damages, mitigate storm surge, control salination of freshwater sources and restore nursery grounds for coral reef species and improve fisheries.



UNDP work to scale up the adoption of EbA approaches

Promote the use of innovative policy instruments, e.g. Natural Capital Accounting, Debt for Nature and Climate swaps, green bonds, and establishment of PES for water, with a growing engagement of PS in blended financing approaches.

- For example, UNDP in LAC with gov'ts to advance NbS via piloting green and blue nature performance bonds, green taxonomies for budget tagging, etc.
- PES for adaptation - Scaling up EbA financing via systematic design of *Catchment Investment Programs* in Southern Africa (GCF project).
 - Large water users pay into a fund to maintain watershed services in degraded and climate vulnerable catchments. PS includes hydroelectric and commercial farmers.



Financing NbS for adaptation/ EbA

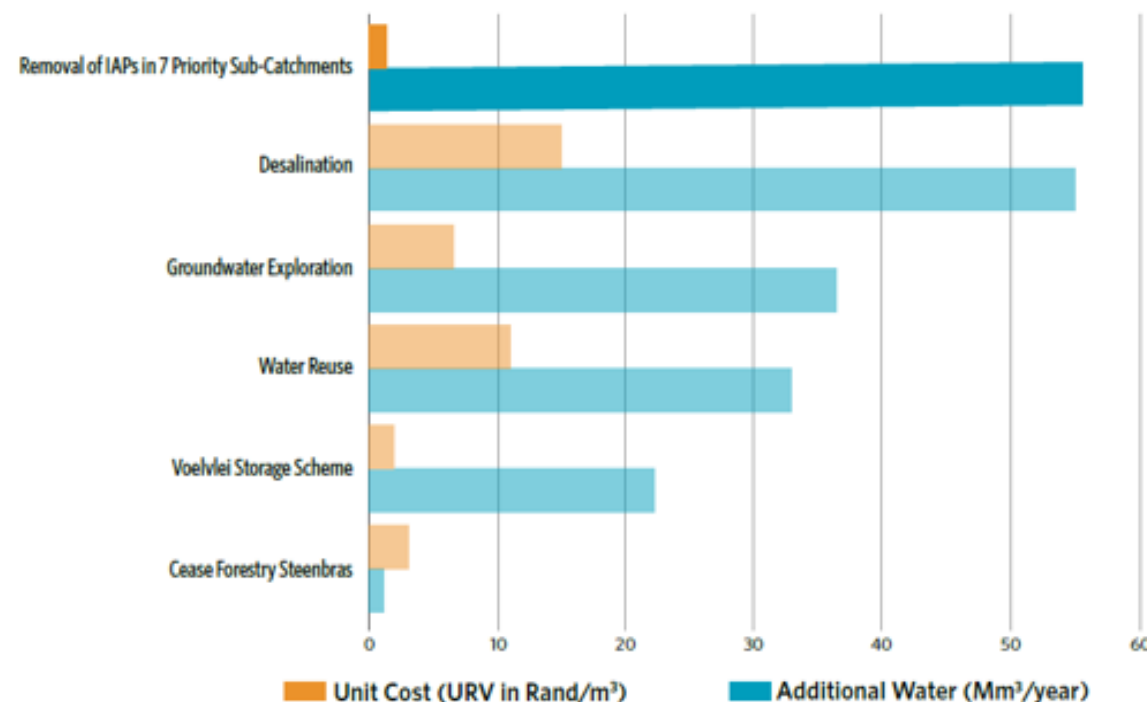
NbS for adaptation projects need ongoing funding to support longer-term costs.

- As of 2018, US\$3.8–8.7 billion (0.6–1.4% of total climate finance flows) and 1.5–3.4% of public climate finance flows towards NbS for adaptation.
- Global funds can be catalytic - grants form 80% of current funding but need to catalyze other sources.

NEEDS:

- Understand how to mainstream NbSA/EbA into climate and development plans for enabling legislation and understand the evidence base on NbS benefits.
- Multi-sectoral in essence, thus, requires coordination and collaboration horizontally, across ministries, and vertically from local to national to regional (e.g. transboundary)
- Understand how to develop, value, and structure NbSA/ EbA investments, to attract private investment and longer-term financing.

CATCHMENT RESTORATION INCREASES WATER SUPPLY AT THE LOWEST UNIT COST



Source: TNC. 2019. Greater Cape Town Water Fund: Assessing the Return on Investment for Ecological Infrastructure Restoration.

For more information on UNDP portfolio:

<https://www.adaptation-undp.org/ecosystem-based-adaptation>