

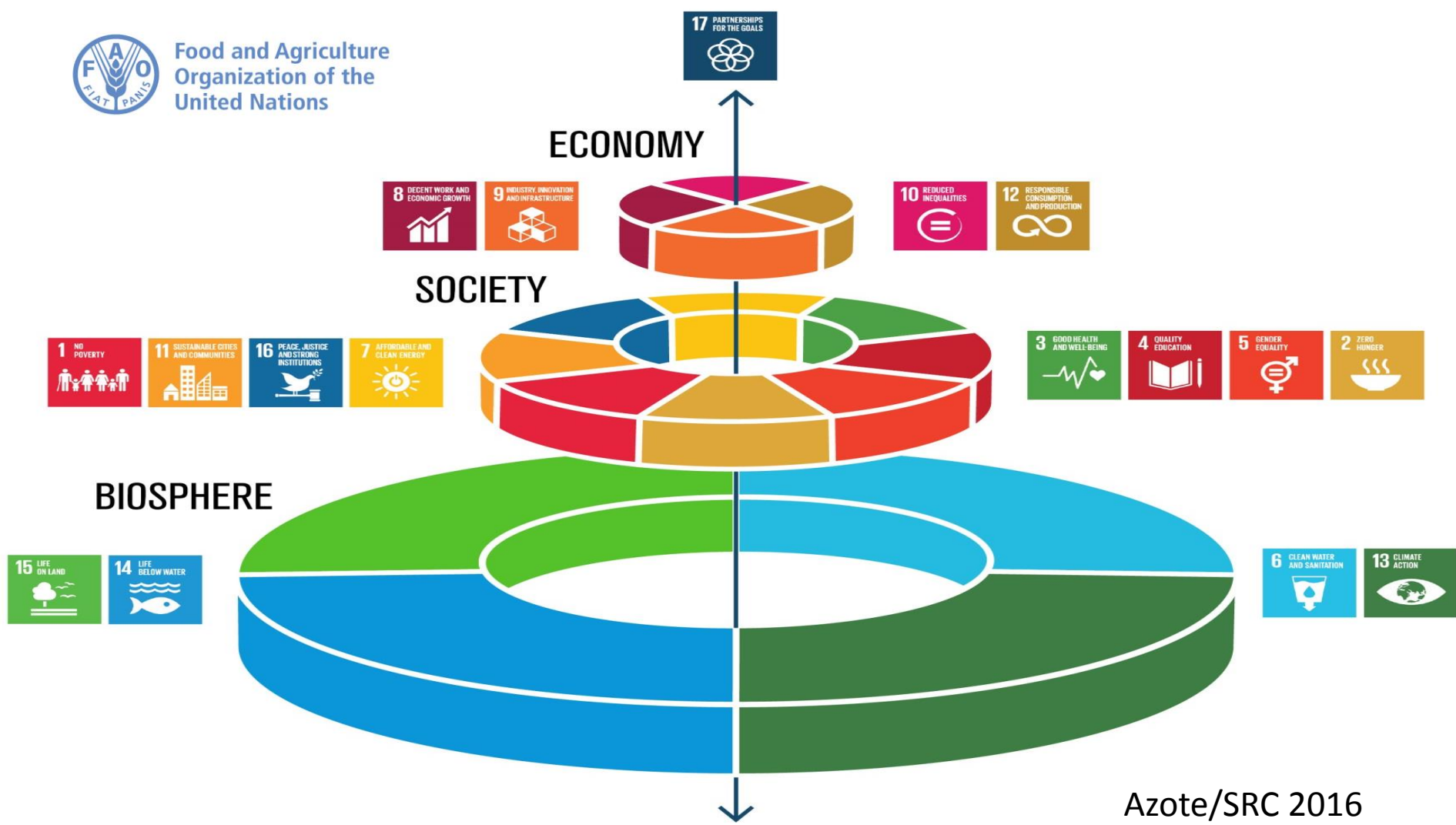
Nature-based solutions for water and agriculture - guidance under the Convention on Biological Diversity



Lisa Janishevski
CBD Secretariat



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Development goals

Climate impacts

Adaptation strategies

Aichi Biodiversity Targets

GOAL 2

END HUNGER, ACHIEVE FOOD SECURITY AND IMPROVED NUTRITION AND PROMOTE SUSTAINABLE AGRICULTURE

SUSTAINABLE DEVELOPMENT GOALS
More at sustainabledevelopment.un.org/sdgsproposal

Drought
Pests & diseases

Diverse crop varieties
Sustainable agriculture
Agro forestry



GOAL 6

ENSURE AVAILABILITY AND SUSTAINABLE MANAGEMENT OF WATER AND SANITATION FOR ALL

SUSTAINABLE DEVELOPMENT GOALS
More at sustainabledevelopment.un.org/sdgsproposal

Drought
Seawater intrusion
Flooding

IWRM
Water demand management



Water tanks

<https://www.cbd.int/sp/targets/>



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What are EbA and Eco-DRR?

Ecosystem-based approaches to climate change adaptation (EbA):

EbA is “the use of biodiversity and ecosystem services as part of an overall adaptation strategy to help people to adapt to the adverse effects of climate change.”

- *CBD Technical Series (2009)*

Ecosystem-based approaches to disaster risk reduction (Eco-DRR):

Eco-DRR is the “sustainable management, conservation and restoration of ecosystems to reduce disaster risk, with the aim to achieve sustainable and resilient development.”

- *Estrella and Saalismaa 2013*

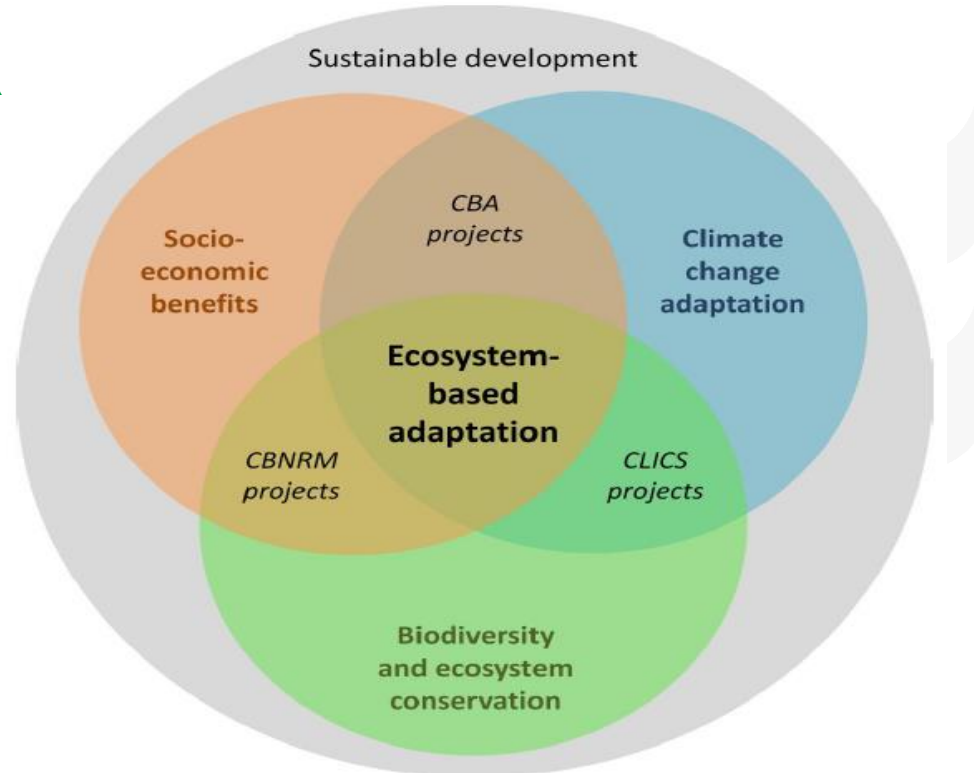


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What are EbA and Eco-DR

EbA and Eco-DRR overlap in practice,
Both use approaches that already exist in biodiversity and ecosystem conservation, climate change adaptation and livelihood development.



Midgley et al. 2012



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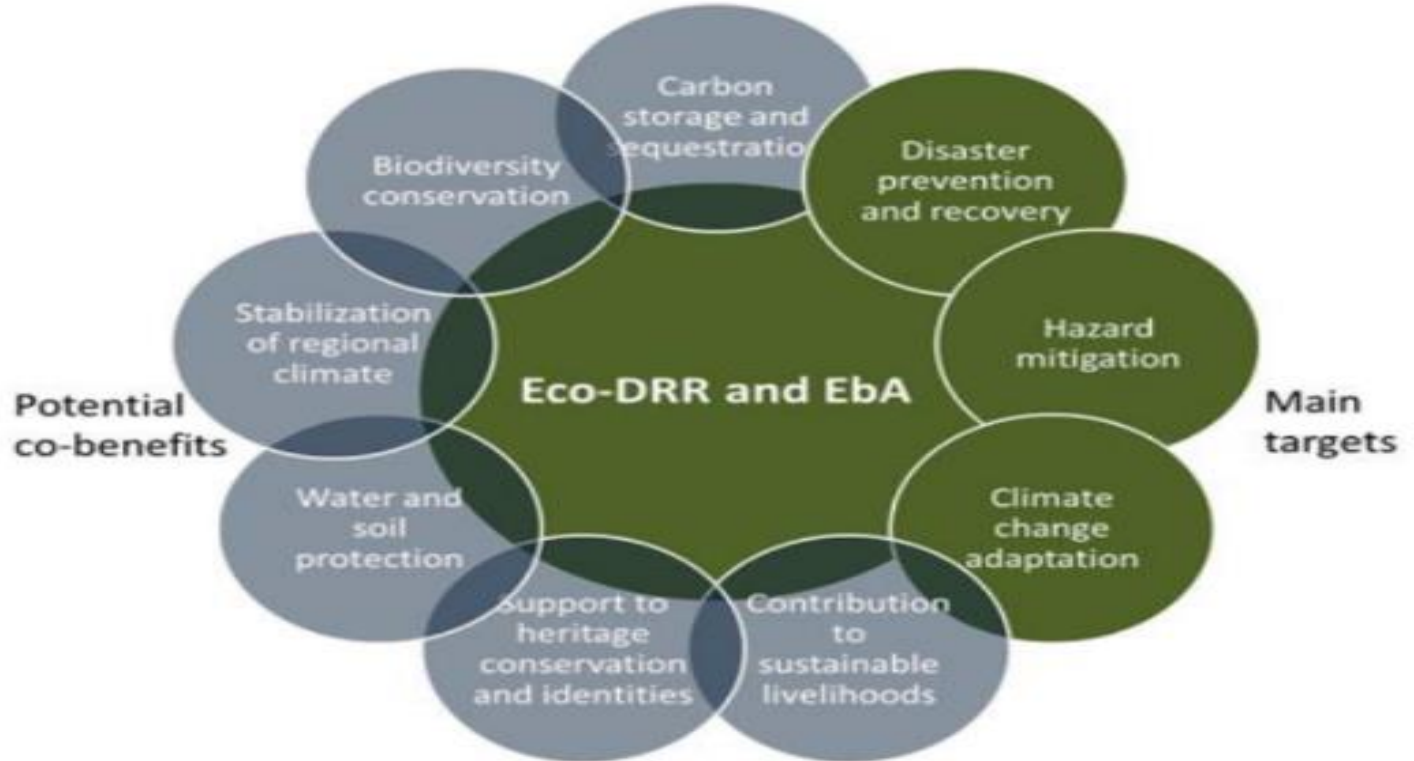
Agriculture and climate change

Climate
change is
a “hunger-
risk
multiplier”



UNICEF Nepal/2017/SJThapa

Benefits of ecosystem based approaches in agriculture





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Examples

- Shade trees in coffee systems
- Use of live barriers, crop covers and other soil conservation techniques
- Use of fallow to restore soil fertility
- Crop diversification to reduce risk of crop loss due to climate change
- Conservation and/or restoration of forests and riparian areas to improve water provisioning and prevent soil erosion from increased heavy rainfall



Panorama database: Farmer at a fenced eroded area in
Azerbaijan © IBiS, GIZ

<https://panorama.solutions/en/portal/ecosystem-based-adaptation>

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A few lessons...

- Establish political commitment for integrated approaches
- Improve cooperation among ecosystems/biodiversity, adaptation, development and disaster reduction communities
- Scale up knowledge-sharing across levels and disciplines and make use of knowledge-sharing platforms
- Recognize the limitations of using EbA or eco-DRR; ecosystems are subject to climate change impacts.

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Making it happen

Financial, political and technical constraints limit widespread adoption of EbA practices at scale.

- Policymakers should integrate ecosystem based approaches into the agriculture sector.
Include EbA, when applicable, into:
 - National Adaptation Plans (NAPs)
 - Regional and local adaptation programs and initiatives targeting farmers
 - Incorporate improvement of agricultural biodiversity, and biodiversity on farms, into National Biodiversity Strategies and Action Plans
- Redirect current funding, innovative funding, consider PES
- Improve knowledge, incorporate traditional knowledge



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Guidance & tools under CBD – working with IPLCs

- The Akwé: Kon Voluntary Guidelines for the Conduct of Cultural, Environmental and Social Impact Assessment regarding Developments Proposed to Take Place on, or which are Likely to Impact on, Sacred Sites and on Lands and Waters Traditionally Occupied or Used by Indigenous and Local Communities (CBD decision VII/16)
- The Tkarihwaí:ri Code of Ethical Conduct to Ensure Respect for the Cultural and Intellectual Heritage of Indigenous and Local Communities Relevant to the Conservation and Sustainable Use of Biological Diversity (CBD decision X/42)



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Guidance & tools under CBD

- **Voluntary guidelines on the effective design and implementation of ecosystem based adaptation and disaster risk reduction** (*CBD/SBSTTA/22/8 and information document CBD/SBSTTA/INF/1*)
 - *Primer for policymakers*
 - *Stepwise process matched with tools*
 - *Principles*
 - *Safeguards*
 - *Overarching considerations*
 - *7 advocacy briefs for EbA and eco DRR into sectors including **agriculture and water***

<https://www.cbd.int/meetings/SBSTTA-22>



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Guidance & tools under CBD

Short term action plan on ecosystem restoration (XIII/5)

- *Principles, Key activities, Support*
- *Guidance for integrating biodiversity considerations into ecosystem restoration:*
 - *address the drivers of loss*
 - *prioritize conservation*
 - *avoid afforestation of grasslands/low tree cover*
 - *take into account ecosystem function/services*
 - *restore habitats to recover/support species*
 - *natural regeneration*
 - *use native site-adapted species*
 - *adopt landscape perspective*
 - *prevent/eradicate invasive alien species*

<https://www.cbd.int/decisions/cop/cop-13>



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Technical Series under CBD

- Interlinkages between biological diversity and climate change. Advice on the integration of biodiversity considerations into the implementation of the UNFCCC and its Kyoto protocol (CBD TS 10)
- Connecting Biodiversity and Climate Change Mitigation and Adaptation: Report of the Second Ad Hoc Technical Expert Group on Biodiversity and Climate Change (CBD TS 41)
- Synthesis report on experiences with ecosystem-based approaches to climate change adaptation and disaster risk reduction (CBD TS 85)



<https://www.cbd.int/ts/>



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Thank you for your attention!

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