



Training courses on **Ecosystem-based Adaptation (EbA)**

Training A:

**Mainstreaming Ecosystem-based Adaptation to Climate Change
into Development Planning**

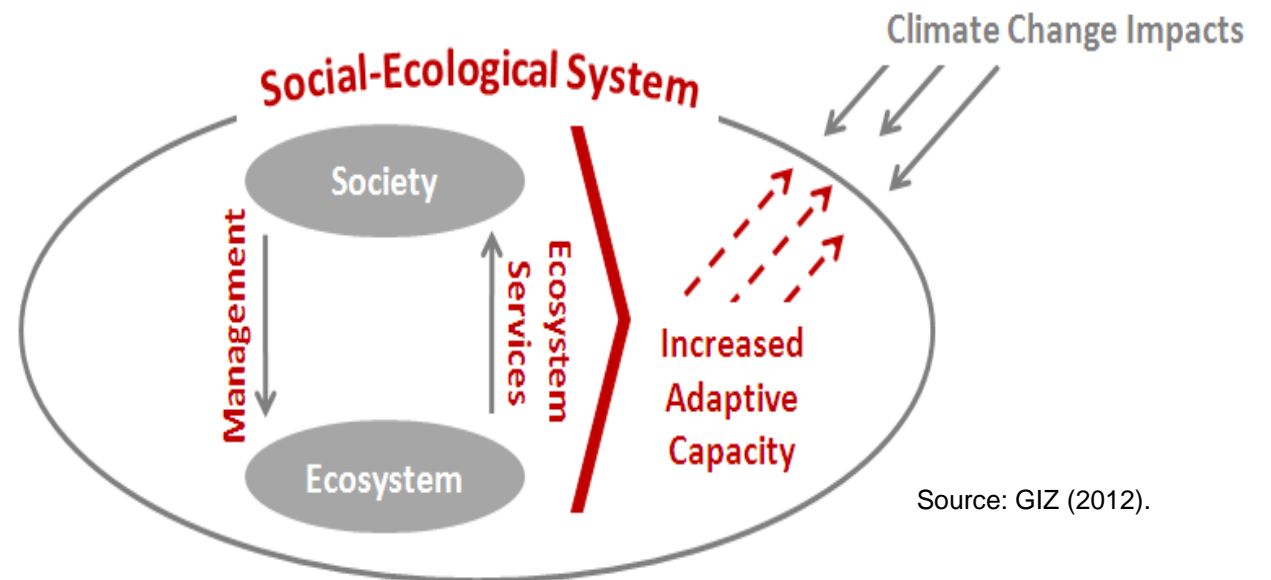
Training B:

**Valuing the Benefits, Costs & Impacts of EbA Measures –
Tools for enhancing climate adaptation decision-making**

The concept of EbA

“**Ecosystem-based Adaptation** 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.**”

Source:
Convention on Biological Diversity. (2009). *Connecting Biodiversity and Climate Change Mitigation and Adaptation: Report of the Second Ad Hoc Technical Expert Group on Biodiversity and Climate Change*. CBD Technical Series 41, Montreal, Canada. <https://www.cbd.int/doc/meetings/cc/ahteg-bdcc-02-02/official/ahteg-bdcc-02-02-06-en.pdf>

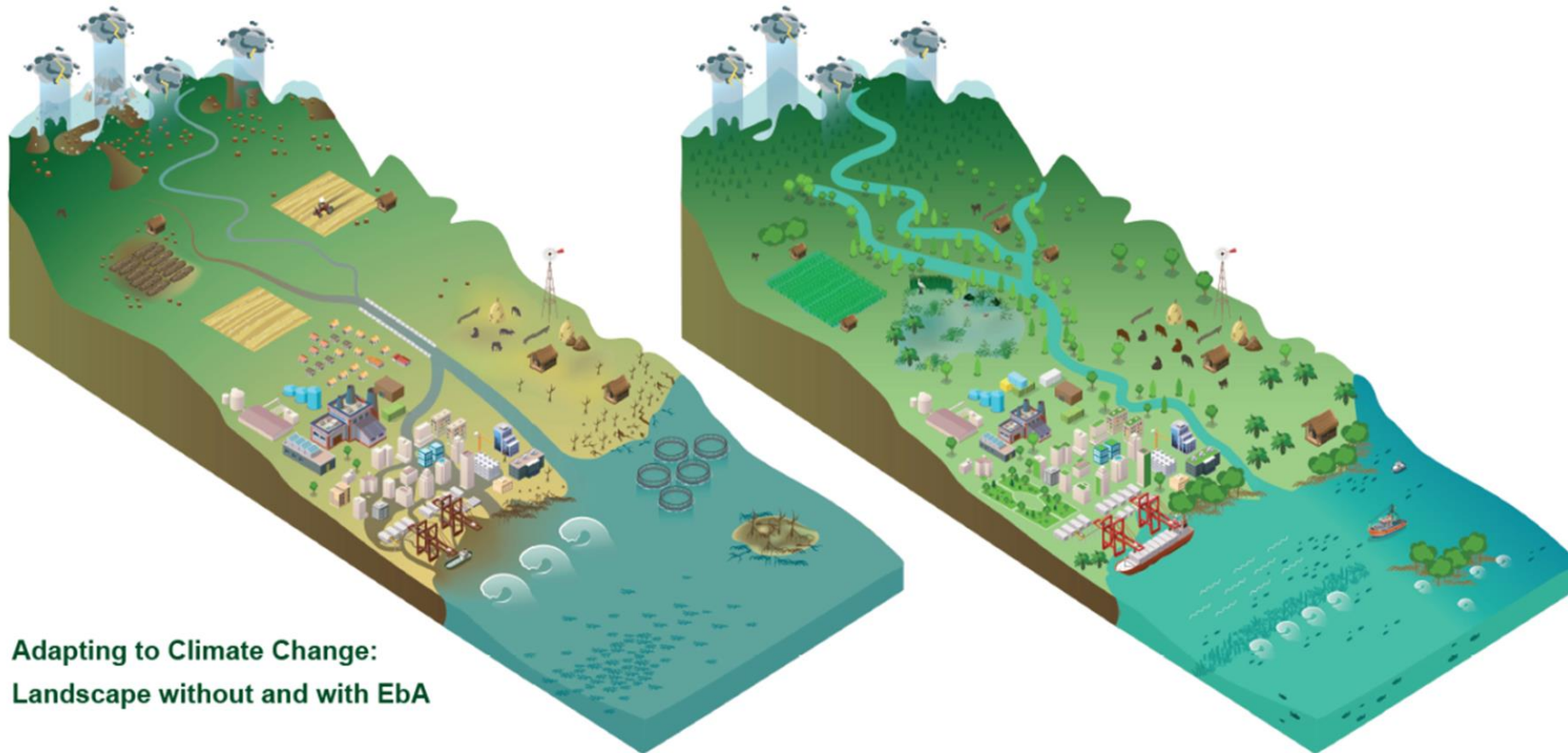


Source: GIZ (2012).



EbA is a powerful instrument for effective climate change adaptation and a holistic development approach.

To better exploit the great potential of EbA it needs to be **fully mainstreamed into development policy and practice.**



Source:
GIZ (2018). Solutions in Focus:
Ecosystem-Based Adaptation from
Mountains to Oceans. How people
adapt to climate change by using
nature. Bonn and Eschborn, p. 10-
11. Graphic: Ira Olaleye, adapted
from FLMH based on © 2016 Marco
Giudice and Francesca Coati
(www.image-illustration.net).

Examples for EbA measures

Mountains



Peru: Restoration of mountain wetlands for improving water distribution

Rivers

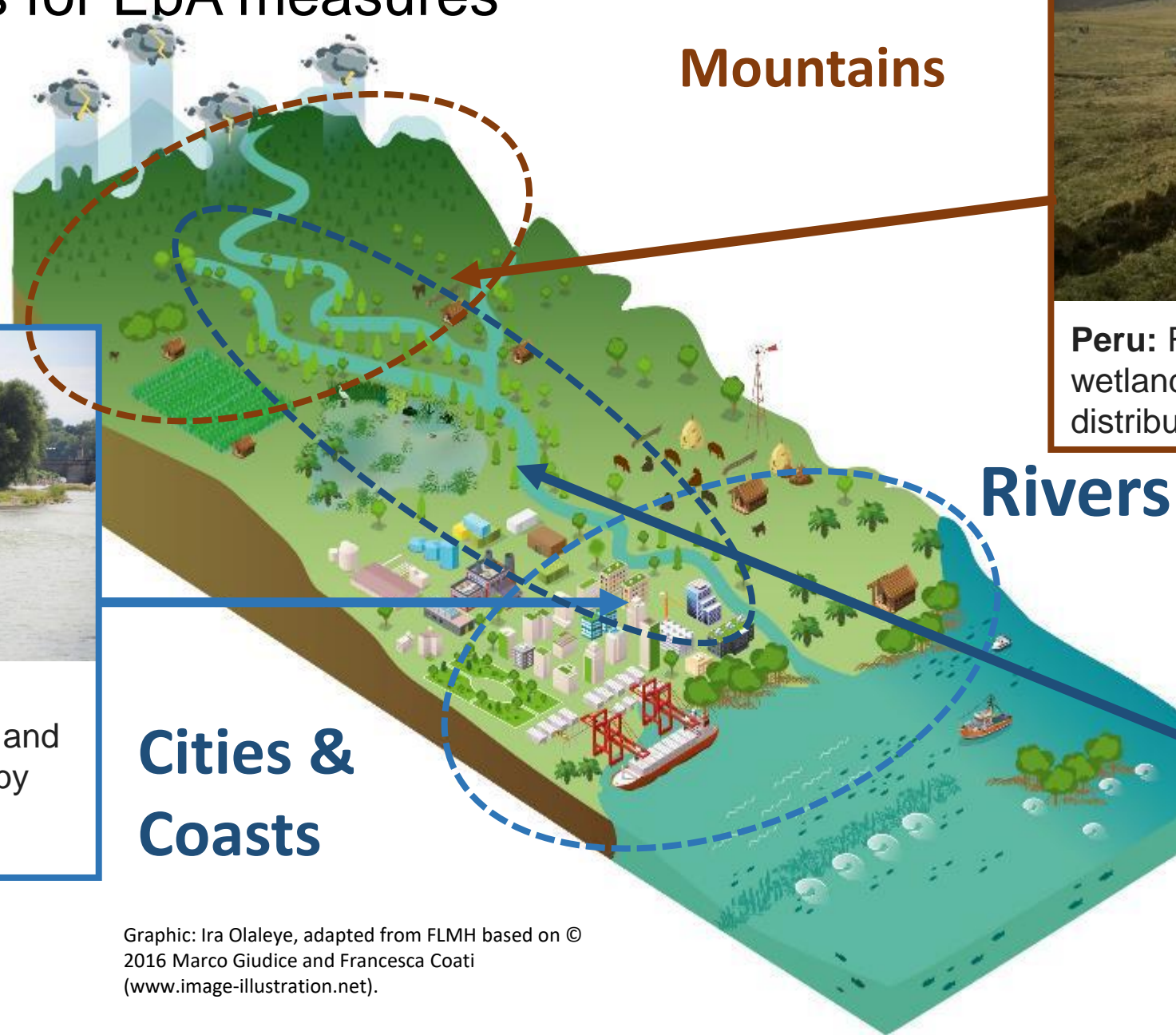


Congo DRC: Reduce soil/gully erosion and flood risks via integrating EbA approaches in the Lukaya Basin IWRM planning

Cities & Coasts



Germany: Isar-Plan: Improving flood protection and recreational opportunities by redesigning the Isar River



Source:

www.panorama.solutions

Graphic: Ira Olaleye, adapted from FLMH based on ©
2016 Marco Giudice and Francesca Coati
(www.image-illustration.net).

Tailor-made, practice-oriented training courses offered by GLZ:

- (A) Mainstreaming Ecosystem-based Adaptation (EbA) to Climate Change into Development Planning
- (B) Valuing the Benefits, Costs & Impacts of EbA Measures – Tools for enhancing climate adaptation decision-making

Target group of the training modules:

Government planners and policy-makers, NGO and civil society representatives, researchers and academics as well as technical staff from development projects.

Ideally, a group of 8-20 participants will be facilitated by **two trainers**. Trainings are available in **English and Spanish**.

Training A:

Mainstreaming Ecosystem-based Adaptation (EbA) to Climate Change into Development Planning

Learning objective: Enhancement of capacities among development partners in successfully tapping the potential of ecosystem services for climate change adaptation.

Core Modules:

- (1) Introduction to the key elements of EbA
- (2) Assessment of vulnerabilities and risks in complex & coupled socio-ecological systems
- (3) Selection of EbA options & design of EbA measures
- (4) EbA-specific monitoring and evaluation

Duration of the training: 1-4 days depending on specific needs and focus of the training

Training B:

Valuing the Benefits, Costs & Impacts of EbA Measures – Tools for enhancing climate adaptation decision-making

Participants of Training B should have basic knowledge on EbA.

Learning objective: Building of awareness and knowhow about why, how and in which contexts EbA assessment and valuation can be used to strengthen climate adaptation planning and implementation in different decision-making contexts.

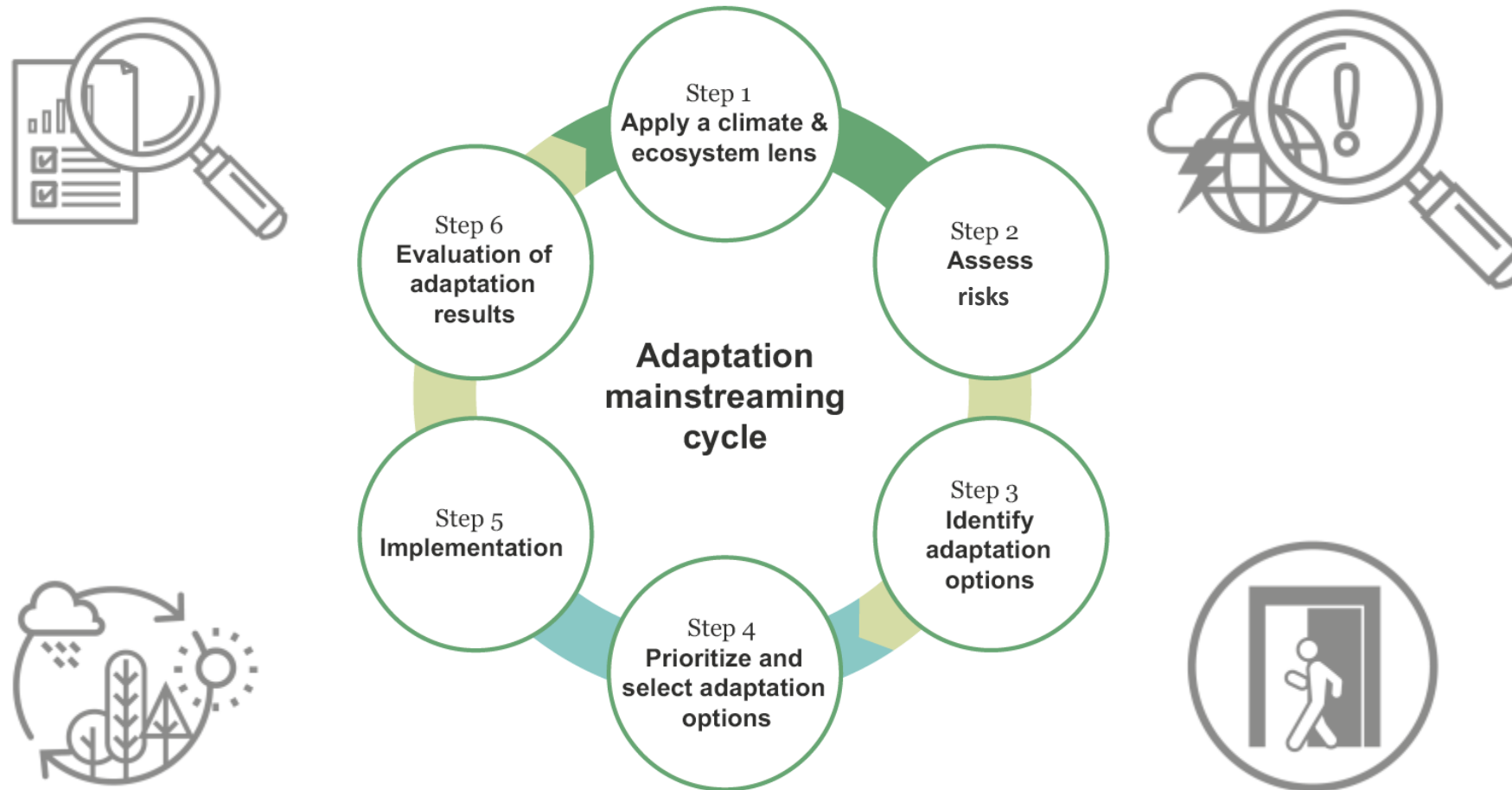
Core Modules:

- (1) Identifying needs, opportunities & frameworks for EbA valuation
- (2) Selecting and applying valuation methods (including measurement methods for biophysical effects, economic costs and benefits, as well as social and institutional outcomes)
- (3) Delivering decision-support

Duration of the training: 2,5 days, length can be adapted according to demand

Set-up of Training A and B:

Both trainings are orientated towards the 6 steps of the so called ***adaptation mainstreaming cycle***



Exemplary insights into Training A:

Mainstreaming Ecosystem-based Adaptation (EbA) to Climate Change into Development Planning

EbA in the Paris Agreement (Article 7 – Adaptation)

2. (...) adaptation is a key component (...) to **protect people, livelihoods and ecosystems** (...)

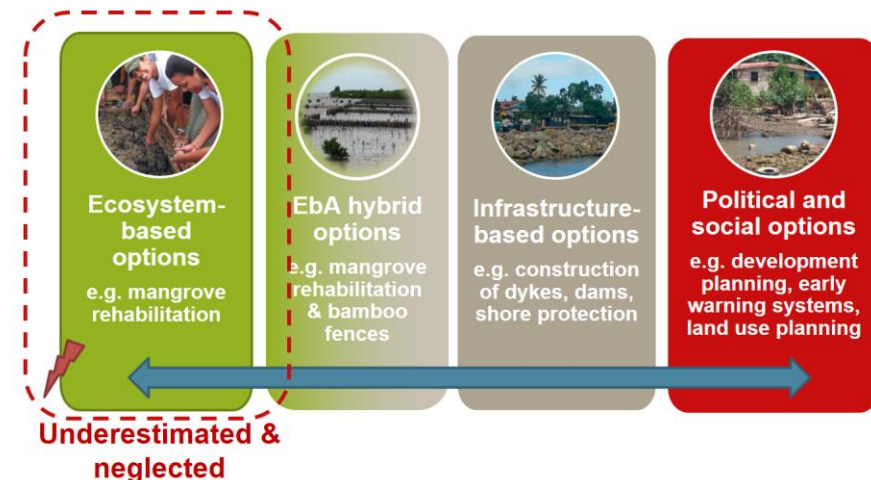
5. (...) **adaptation actions** should follow a country driven, gender responsive, participatory and fully transparent approach taking into consideration **vulnerable groups, communities and ecosystems** (...)

9. Each party shall (...) engage in **adaptation planning** and (...) **implementation** (...) which may include (...)

- (c) The assessment of climate change impacts and vulnerability (...) taking into account vulnerable **people, places and ecosystems**;
- (e) Building the **resilience of socioeconomic and ecological systems**, incl. through economic diversification and **sustainable management of natural resources**



Ecosystem-based adaptation (EbA) in the context of an overall adaptation strategy



Modul 1: Introduction to the training & principles of EbA - Session B: Basics of EbA

Modul 1: Introduction to the training & principles of EbA - Session C: The EbA mainstreaming cycle

Exemplary insights into Training A:

Mainstreaming Ecosystem-based Adaptation (EbA) to Climate Change into Development Planning

Step 1: Assessing the context for adaptation



Narrow mangrove belt along a highly dynamic coast line

- Storms (coastal erosion)
- Sea level rise

• **Shrimp farming & rice cultivation**

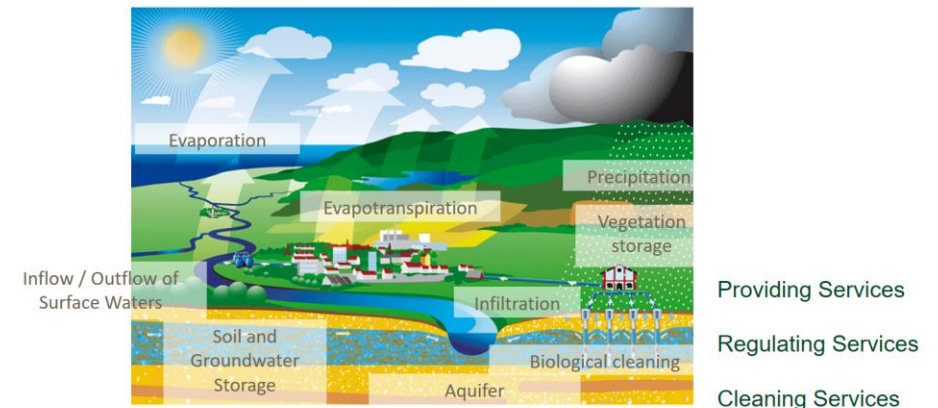
- Flooding (Mekong)
- Saline intrusion
- Changes in precipitation
- Temperature increase

Adaptation Mangroves (soft)

- Sea dyke, wave breakers (hard)
- Hybrid (soft and hard solutions)



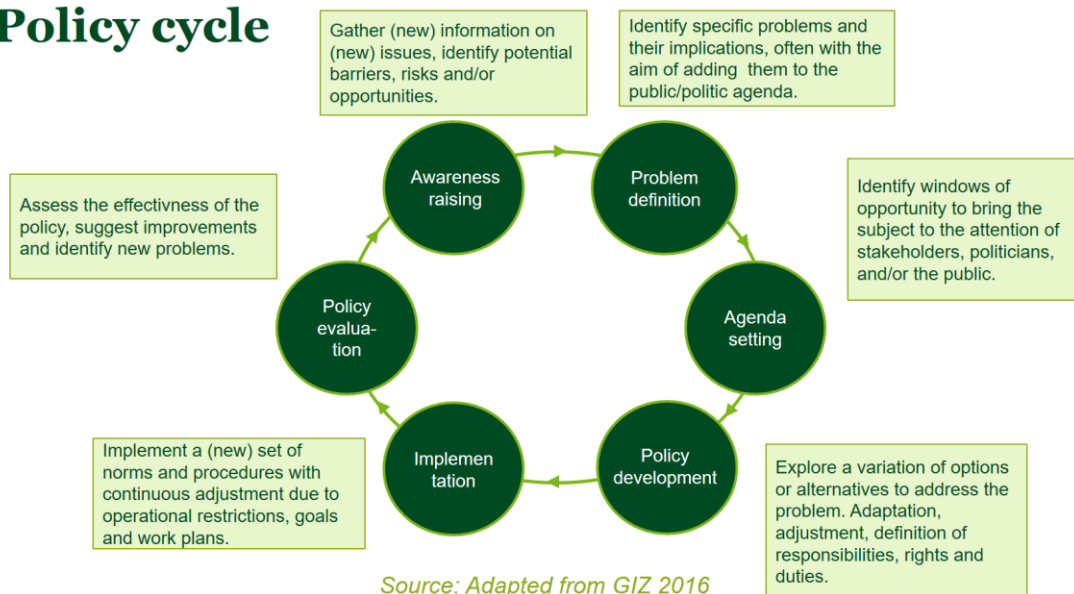
Which ecosystem services relate to water?



Exemplary insights into Training A:

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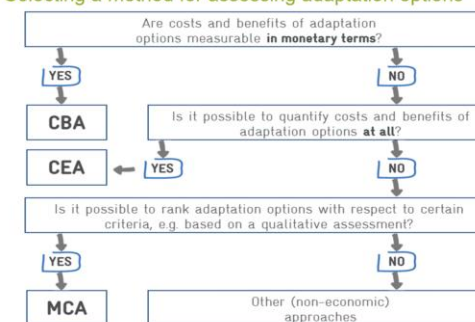
Policy cycle



Source: Adapted from GIZ 2016

Module 2: Scoping and vulnerability and risk assessment -
Session B: Policy arena and relevant entry-points for EbA

Selecting a method for assessing adaptation options



Module 3: Design and selection of options and measures – Session B: Choosing and prioritizing

The SMART rule for indicators and targets

Criteria for the selection of good indicators

- S Specific**: the indicator is valid and describes the underlying issue; indicator is precisely formulated.
- M Measurable** (practicability and objectivity): data obtained through reproducible methods independent from the individual collectors of the information.
- A Attainable** (referring to targets), Agreed by stakeholders (referring to indicators).
- R Relevant**: address an important issue for the users and related to the objective of M&E.
- T Time-bound**: a temporal reference is given so that progress can be measured during the course of implementation

Module 4: Monitoring and Evaluation – Session B:
Indicator development

Exemplary insights into Training A:

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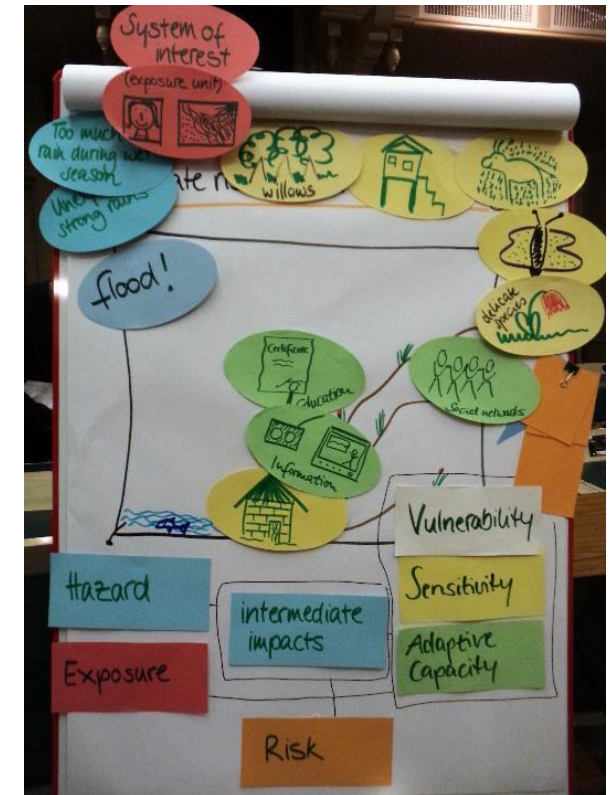
Group work: Landscapes Lagoonia and Mountains



@EbA Mainstreaming Training in Germany 2018



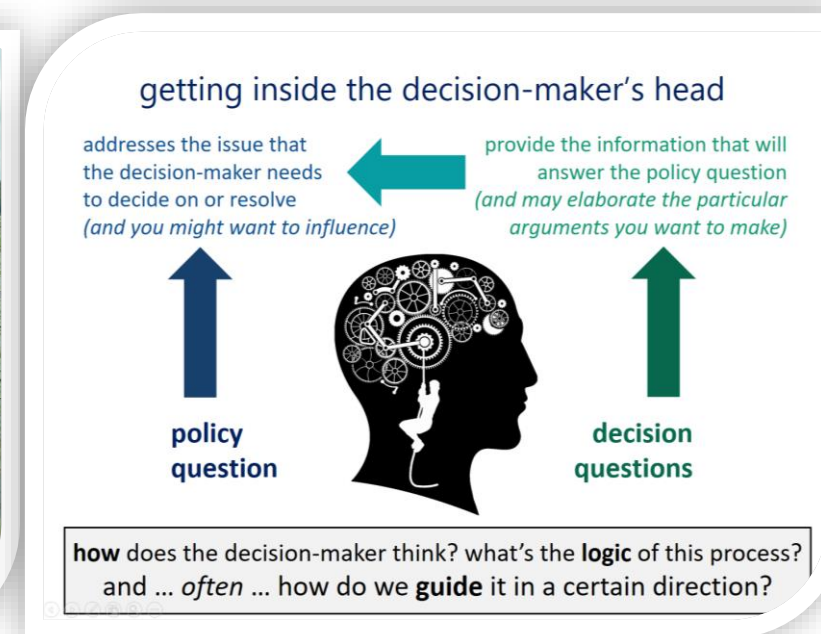
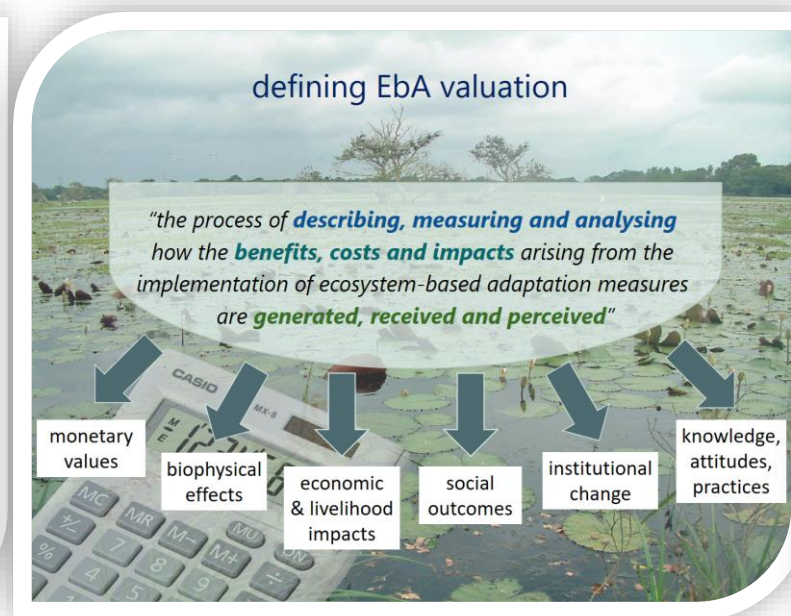
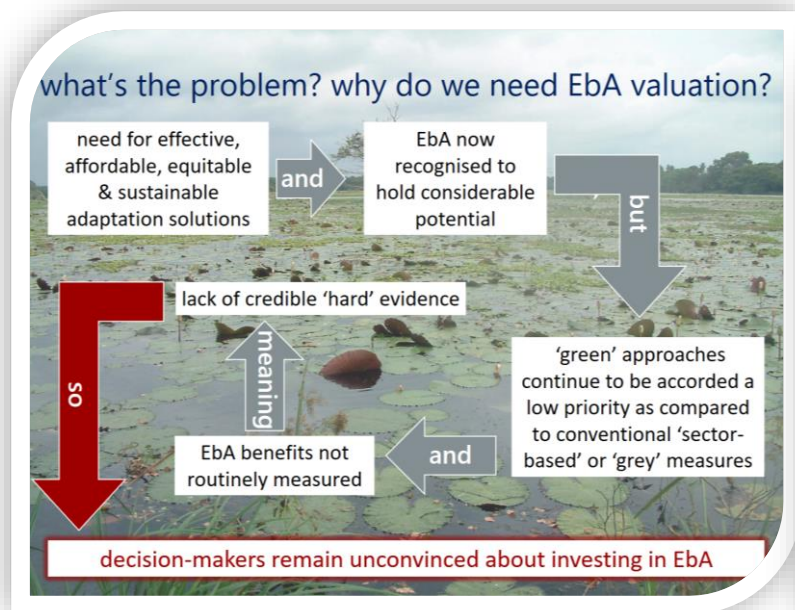
@EbA Mainstreaming Training in Jordan 2018



@EbA Mainstreaming Training in Italy 2017

Exemplary insights into Training B:

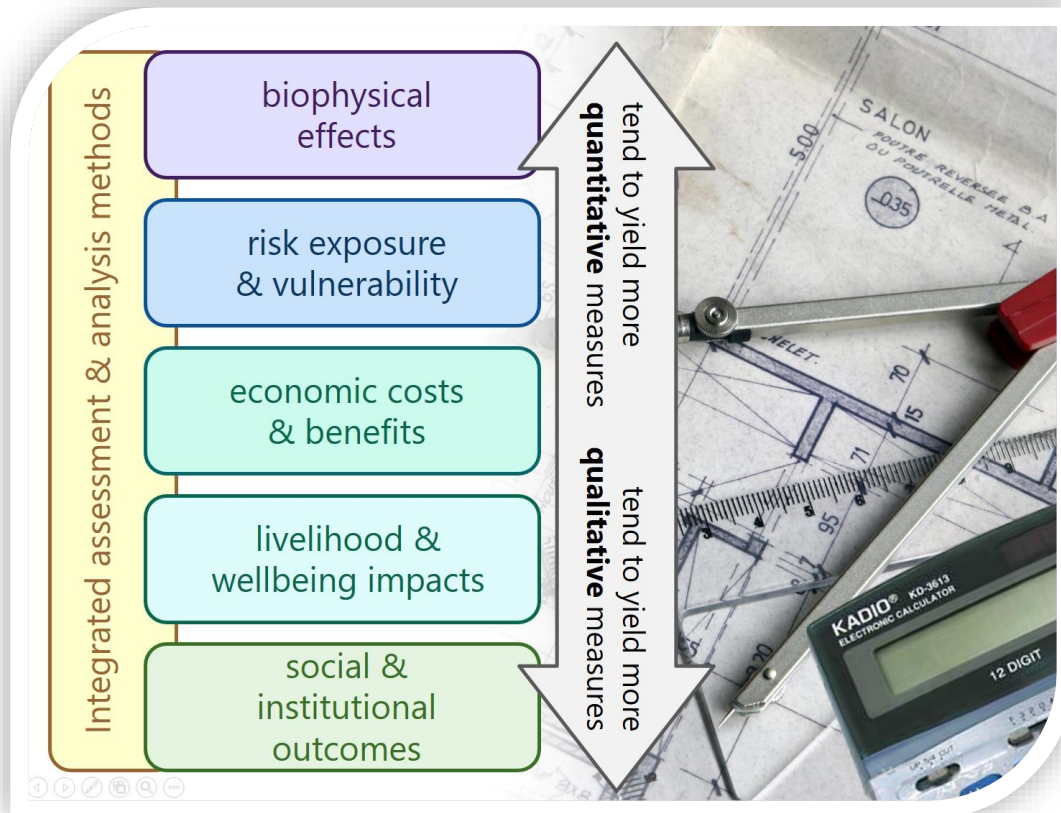
Valuing the Benefits, Costs & Impacts of EbA Measures – Tools for enhancing climate adaptation decision-making



Module 1: Defining the purpose – when, why & where to value EbA benefits

Exemplary insights into Training B:

Valuing the Benefits, Costs & Impacts of EbA Measures – Tools for enhancing climate adaptation decision-making



Module 3: Bird's eye view of valuation methods
- clusters and categories

Cost-effectiveness analysis

which option has the lowest cost per unit of output ($\$ \text{spent} / \text{unit of output}$)?
... or ... gives the highest benefits for the money spent ($\text{output units} / \$ \text{spent}$)?
(measures benefits and values costs)



Option 1: beach nourishment, groynes & breakwaters

Cost: \$15 million over 10 yrs

Benefit: 300,000 households



Option 2: relocate key roads & settlements inland

Cost: \$75 million over 10 yrs

Benefit: 750,000 households



Option 3: restore & conserve mangroves

Cost: \$3 million over 10 yrs

Benefit: 150,000 households

?? Most cost-effective option in terms of \$ spent/benefit generated?



Module 5: Methods of measuring economic values

Exemplary insights into Training B:

Valuing the Benefits, Costs & Impacts of EbA Measures – Tools for enhancing climate adaptation decision-making

commonly-used social & institutional valuation methods

key concern is to find methods based on stakeholders' own views, priorities and preferences, expressed through locally-meaningful metrics & indicators:

- livelihood analysis
- PRA (informant interviews, focus groups, ranking, weighting, mapping, seasonal calendars, etc.)
- agent-based models
- stakeholder mapping & assessment
- social network analysis
- institutional and context analysis
- etc.



Module 6: Methods for measuring social and institutional outcomes



relevance: the applicability of valuation findings to the needs of adaptation planners, managers and policy-makers

credibility: the technical adequacy and believability of the evidence and arguments presented on the effectiveness of ecosystem-based approaches

legitimacy: the perceived validity and trustworthiness of both the EbA valuation process and its results as being fair, unbiased, and respectful of stakeholders' divergent values and beliefs.

Module 7: Enhancing the strategic impact of EbA valuation – leveraging decision change & influence



For further information regarding the training contact the
global project on Mainstreaming EbA.

For publications and further resources please visit:
www.AdaptationCommunity.net

