UNFCCC SB48 Side Event

3rd EbA Knowledge Day

Moving from pilots to mainstreaming – opportunities and challenges of scaling up Ecosystem-based Adaptation



07 May 2018 / 9:00am-05:00pm / **GIZ Office**, Bonn Friedrich Ebert Allee 36 (Room "Donau", Mäanderbau)

Implemented by

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IUCN

FEBA Friends of Ecosystem-based Adaptation

On behalf of:

Federal Ministry for the Environment, Nature Conservation and Nuclear Safety

of the Federal Republic of Germany

Time	Content
9.30	Session 1 – Panel: "From EbA piloting to upscaling – opportunities and challenges" – perspectives from donors and policy makers / Q&A
10.30	Coffee break
11.00	Session 2 – Panel: "Entry Points & stakeholder alliances for strengthening EbA implementation and upscaling – a country/implementer perspective" / Q&A
12.00	Lunch break
12.30	Session 3 – EbA Market Place with poster inputs that illustrate opportunities & challenges of scaling up EbA
14.00	Session 4 – Expert Dialogues (parallel sessions) ○ Group 1: Strengthening EbA through alignment of multiple national policy processes (SDG, NDC, NAP) ○ Group 2: Leveraging EbA and Eco-DRR for a successful upscaling into key sectors (planning & finance, agriculture, water) ○ Group 3: Showcasing EbA implementation to generate public & private funding for EbA, enhancing its upscaling ○ Group 4: Providing and communicating robust data for EbA upscaling within policies and practice
16.00	Coffee break
16.30	Session 5 – Summary & Wrap up

What do we mean by ‘upscaling’?

FEBA
Friends of Ecosystem-based Adaptation

We understand ***upscaling*** as the *“replication of innovative, tried and tested approaches on a wider scale”*.

It can cover..
“horizontal upscaling” into different sectors, regions and
“vertical upscaling” into policies and strategies.

The International Climate Initiative (IKI)

3rd EbA Knowledge Day – the challenge of upscaling EbA

Lea Herberg,

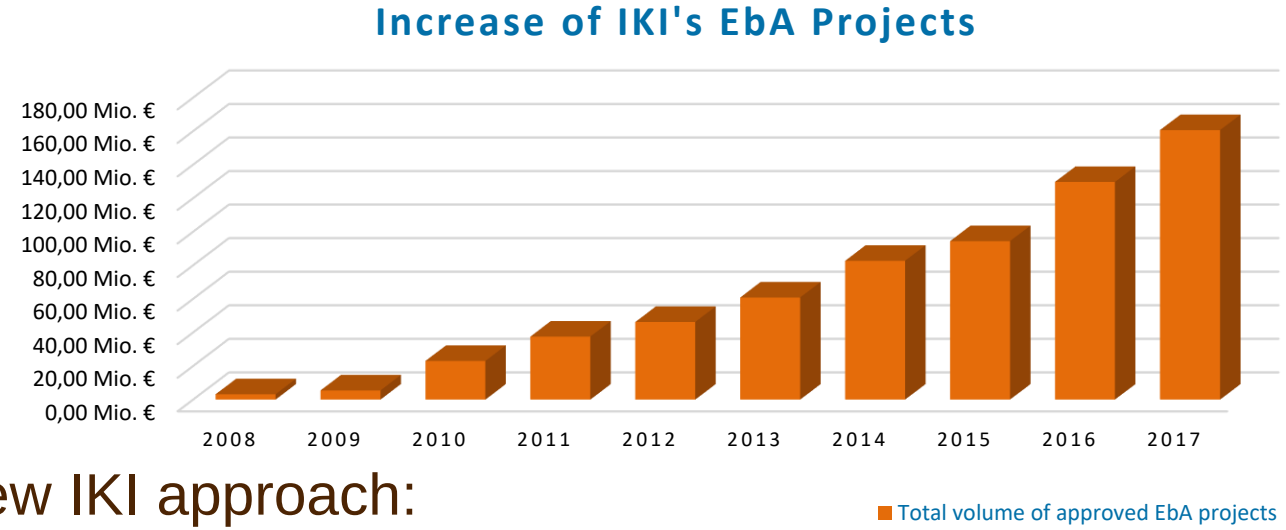
Division International Climate Finance,
International Climate Initiative

BMU

Scaling up EbA funding

IKI‘s contribution

- 2017: 9 new EbA projects approved
- Current EbA portfolio: 42 projects, total volume: 162,5 mio. EUR



- New IKI approach:
  thinking big for reaching scale.

Facilitating finance

Projects

- Ecosystem-based Adaptation to Climate Change in cooperation with the private sector in Mexico (GIZ)
- EbA facility in the Caribbean as part of the CBF (KfW)
- Microfinance for EbA (UN Environment)

Knowledge for upscaling

Knowledge products to facilitate upscaling

- Sourcebook „*Valuing the Benefits, Costs and Impacts of Ecosystem-based Adaptation (EbA) Measures*" by GIZ
- New report „*The Global Value of Mangroves for Risk Reduction"* by TNC und Bündnis Entwicklung Hilft

Sharing knowledge

- EbA community, workshops, FEBA
- PANORAMA Platform
- EbA session at 10 years IKI celebration

Thank you for your attention!

www.international-climate-initiative.com

E-Mail: programmbuero@programmbuero-klima.de

@iki_bmub

Panel Discussion
Session 1

Convention on Biological Diversity

United Nations Decade on Biodiversity

Upscaling EbA and nature based solutions for adaptation

Humbo project Ethiopia. Source: World Vision Australia

Show how EbA relates to the things that matter to decision-makers

making cities inclusive, safe, resilient and sustainable

taking urgent action to combat climate change and its impacts

conserve and sustainably use oceans, seas and marine resources

sustainably manage forests, combat desertification, halt and reverse land degradation, and halt biodiversity loss

From piloting to upscaling – the example of the Caribbean Biodiverstiy Fund‘s EbA Facility

EbA Knowledge Day, May 7th, Bonn

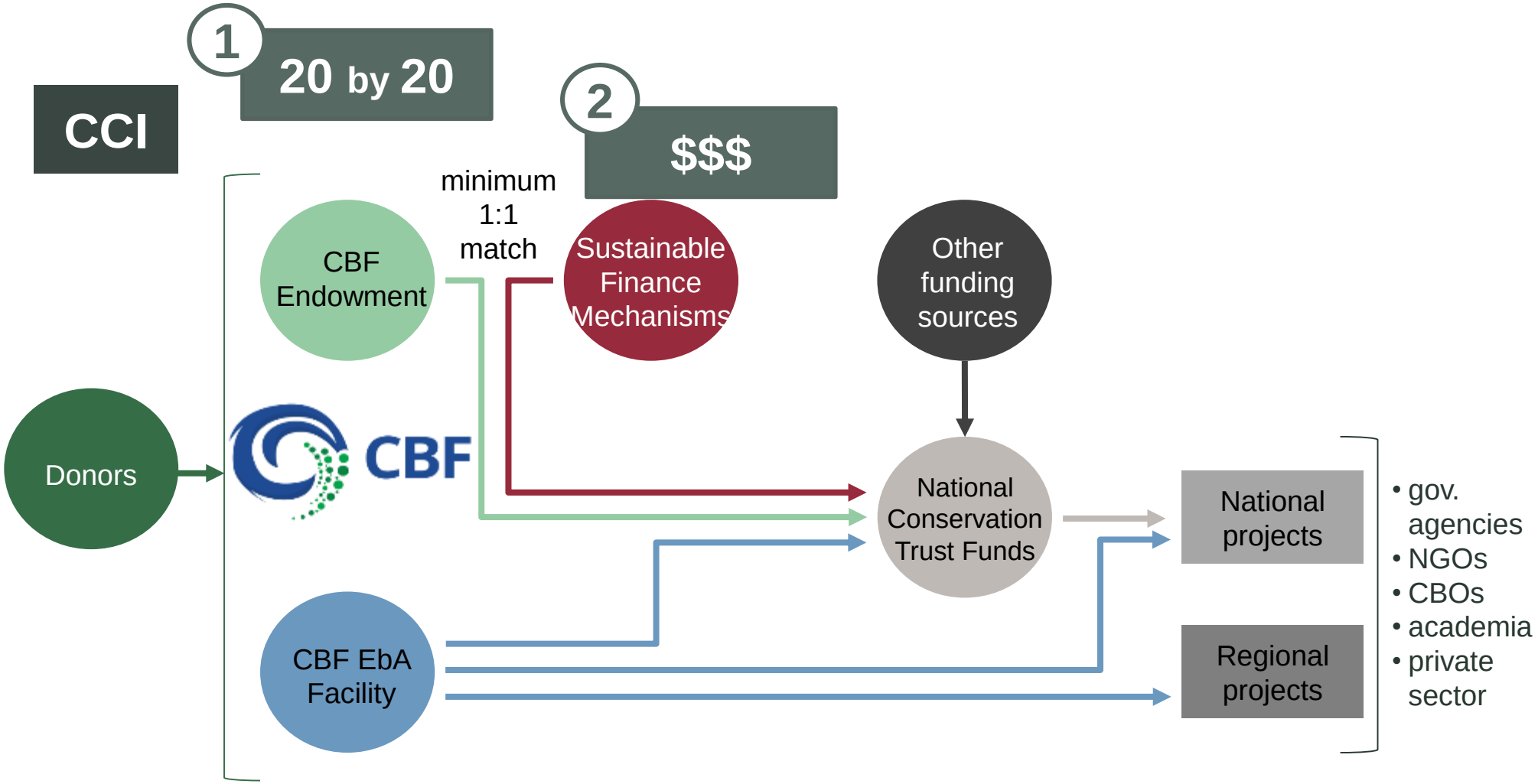
Karim ould Chih, KfW Frankfurt

Federal Ministry
for the Environment, Nature Conservation
and Nuclear Safety

Bank aus Verantwortung

KFW

Caribbean Sustainable Financial Architecture



CBF's EbA Facility

- Separate window of USD 26.5m under CBF platform
- Sinking fund over 5 years, managed by Deutsche Bank New York
- 9 ODA-countries in the Caribbean are eligible
- Grants will have a range of 0.5 to 2 million USD
- Multi-stakeholder EbA Committee
- Support through preparatory studies
  - Overview EbA activities
  - Vulnerability analysis
  - Others as needed

A&B 

CUB 

DOM 

DR 

GRE 

HAI 

JAM 

SLU 

SVG 

CBF EbA Facility

Illustrative activities

Coastal Ecosystems

- PAs, beaches, mangroves, setbacks

Marine Ecosystems

- MPAs, coral reefs, mangroves, seagrass and others

Upland Ecosystems

- Reforestation, riparian zone, slopes in connection with coastal/ marine ecosystems

Other

- Social resilience, research, awareness raising and others

Panel Discussion
Session 2

Entry Points & stakeholder alliances for strengthening EbA implementation and upscaling in Latin America

Pilot EbA projects → Generate evidence and awareness → South-South knowledge exchange → "Window of opportunity' for policy change and mainstreaming

BARRIERS

Common language
Institutional capacity
Policy articulation at national, regional and local levels
Data availability and access

INGREDIENTS

Evidence
Institutional leadership
Inter-sectoral collaboration
Financial mechanisms
Communication and collaboration at all levels

Ecosystem-based Adaptation Community of Practice Portal

3rd EbA Knowledge Day – Session 2

Entry Points and Stakeholder Alliances for Strengthening EbA Implementation and Upscalling - Indonesia Experiences

Dra. Sri Tantri Arundhati, M.Sc.

Director for Climate Change Adaptation

Directorate Climate Change Adaptation
Directorate General for Climate Change
Ministry of Environment and Forestry of the Republic of Indonesia

Bonn, 7 Mei 2018

Ecosystem-based Adaptation Definition (EbA)

EbA , which integrates the use of biodiversity and ecosystem services into an overall adaptation strategy , can be cost –effective and generate social, economic and cultural co-benefits and contribute to the conservation of biodiversity .

Sumber:
UNFCCC.2013. Report on the technical workshop on ecosystem-based approaches for adaptation to climate change

Climate Change Impact on Ecosystem

ECOSYSTEM

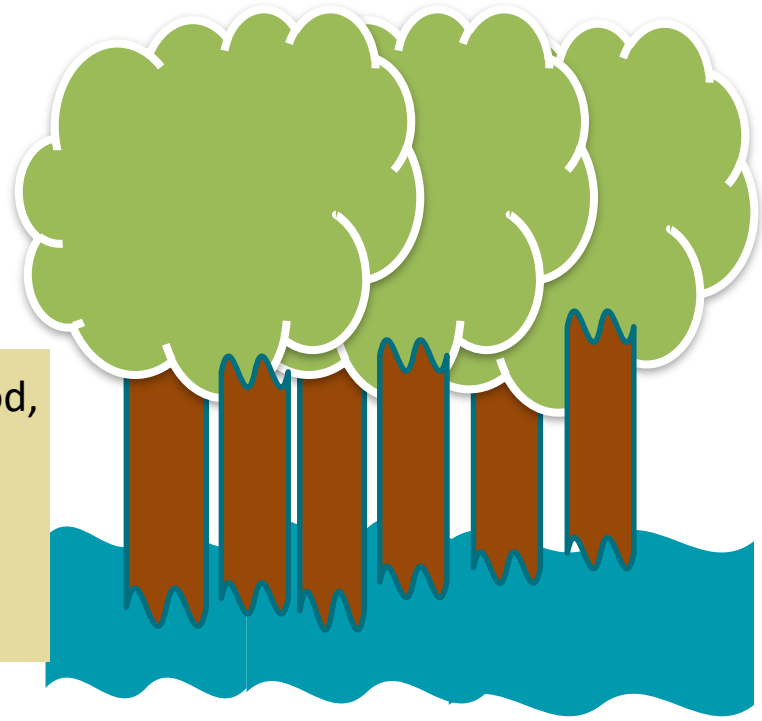
- Degaradation of ecosystem ,
- Loss of biodiversity

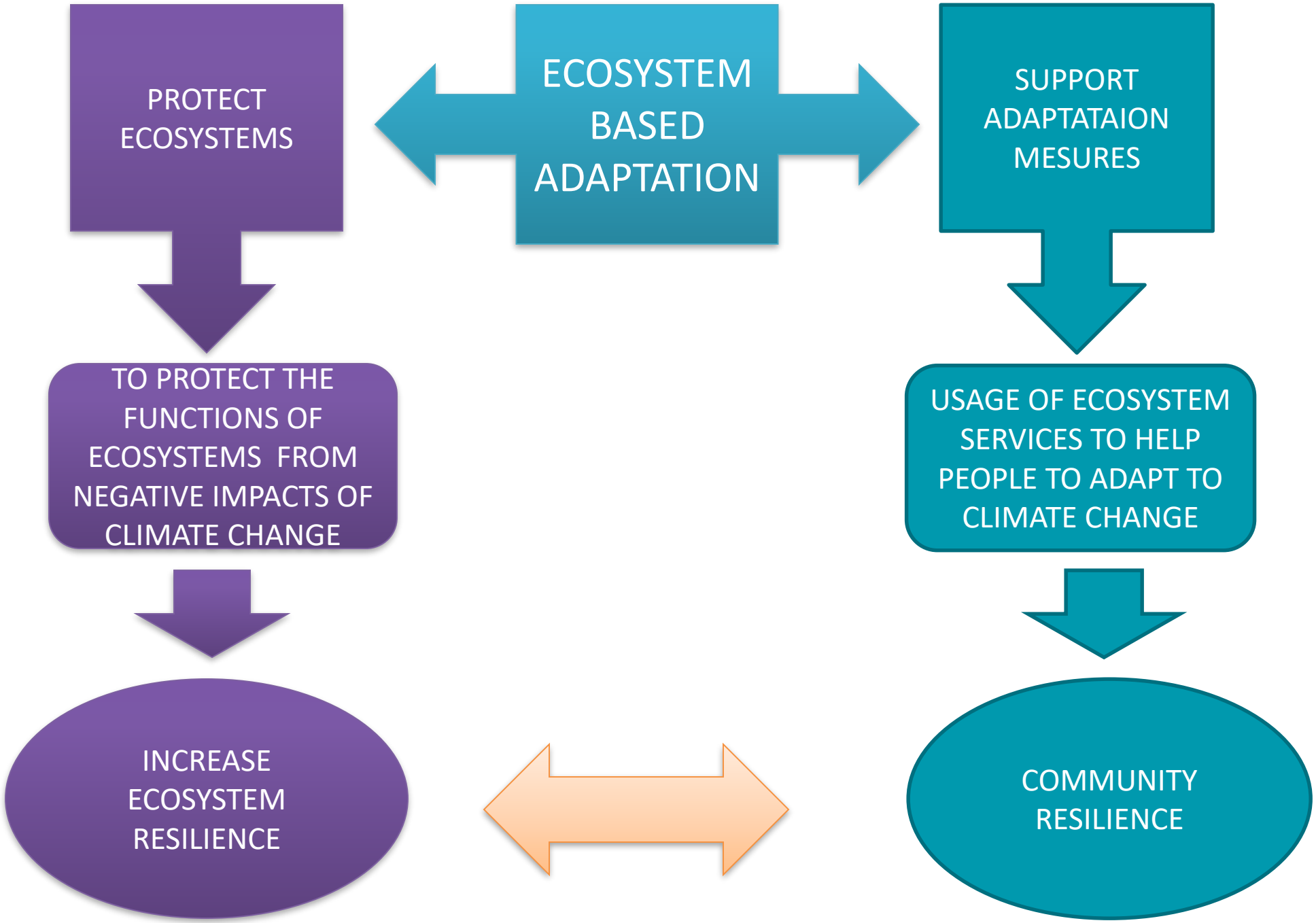
COMMUNITY

- Increased of disaster (flood, coastal errosion, water inundation)
- clean water shortage,
- infrastructure damage

LIVELIHOOD

- Loss of livelihood,
- Income decreased




ECOSYSTEM BASED ADAPTATION
PROTECT ECOSYSTEMS
SUPPORT ADAPTATAION MESURES
TO PROTECT THE FUNCTIONS OF ECOSYSTEMS FROM NEGATIVE IMPACTS OF CLIMATE CHANGE
USAGE OF ECOSYSTEM SERVICES TO HELP PEOPLE TO ADAPT TO CLIMATE CHANGE
INCREASE ECOSYSTEM RESILIENCE
COMMUNITY RESILIENCE

Ecosystem-based Adaptation Definition

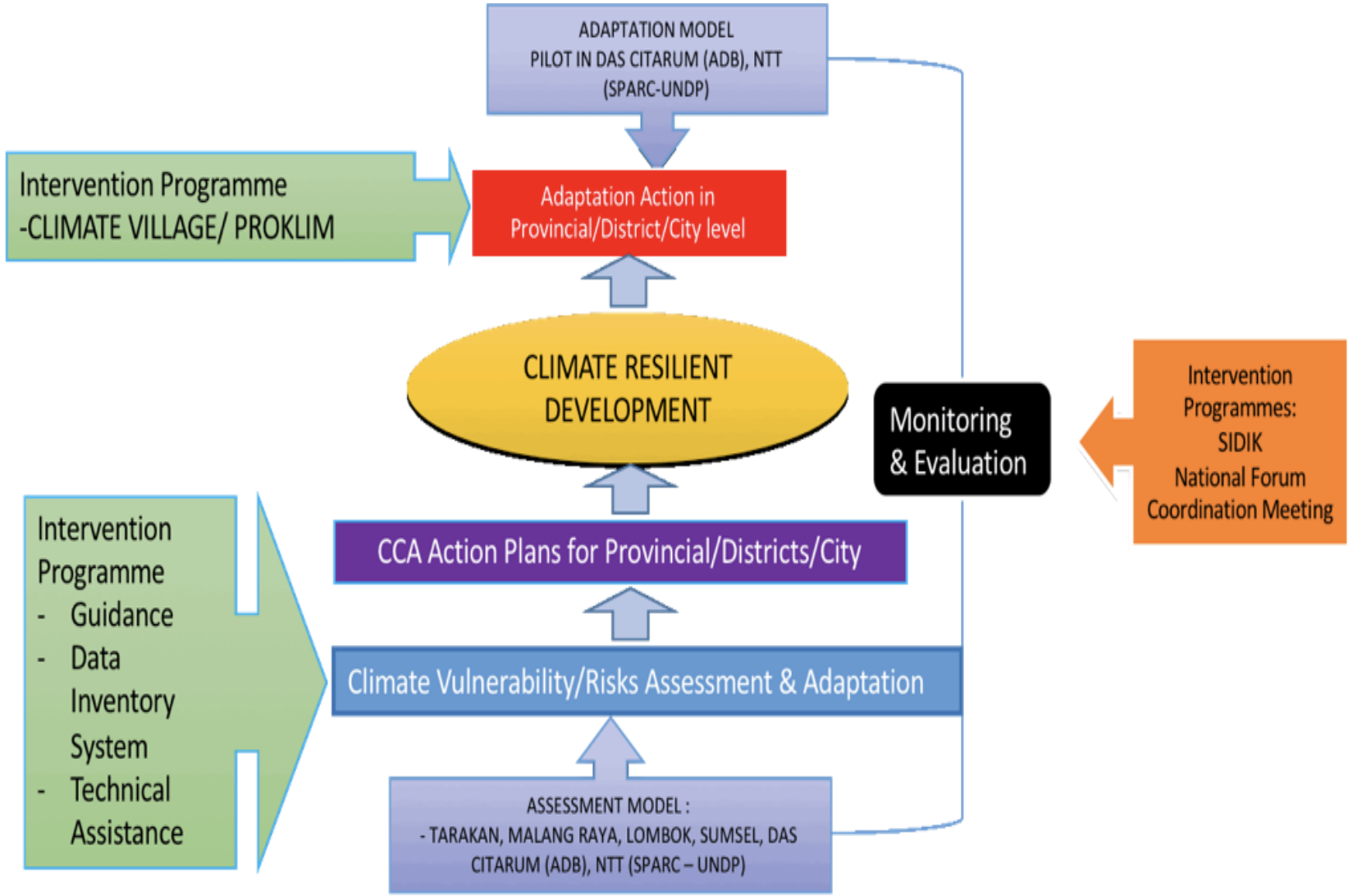
Draft on EbA Identification of MoEF

Ecosystem-based Adaptataion (EbA) is means of adaptation to protect and maintain ecosystem functions from severe impacts of climate change and at the same time help vulnerable communities to adapt to Climate change through ecosystem functions and services.

Principles

- Support ecosystem resilience
- Maintain ecosystem services
- Support CCA inter sectors
- Dissasster Risk Reduction
- Complement to infrastructure measures
- Avoid mal-adaptation

SCHEME OF ADAPTATION PROGRAM



STRUCTURE OF INDONESIA's FIRST NDC

NATIONAL CONTEXT	MITIGATION	ADAPTATION	STRATEGIC APPROACH
PLANNING PROCESS	INFORMATION TO FACILITATE CLARITY, TRANSPARENCY AND UNDERSTANDING	TRANSPARENCY FRAMEWORK	INTERNATIONAL SUPPORTS
	INDONESIA LOW CARBON AND CLIMATE RESILIENCE STRATEGY	REVIEW AND ADJUSTMENT	

ADAPTATION

Economic Resilience

- Sustainable agriculture and plantations
- Integrated watershed management
- Reduction of deforestation and forest degradation
- Land conservation
- Utilization of degraded land for renewable energy
- Improved energy efficiency and consumption patterns

Social and Livelihood Resilience

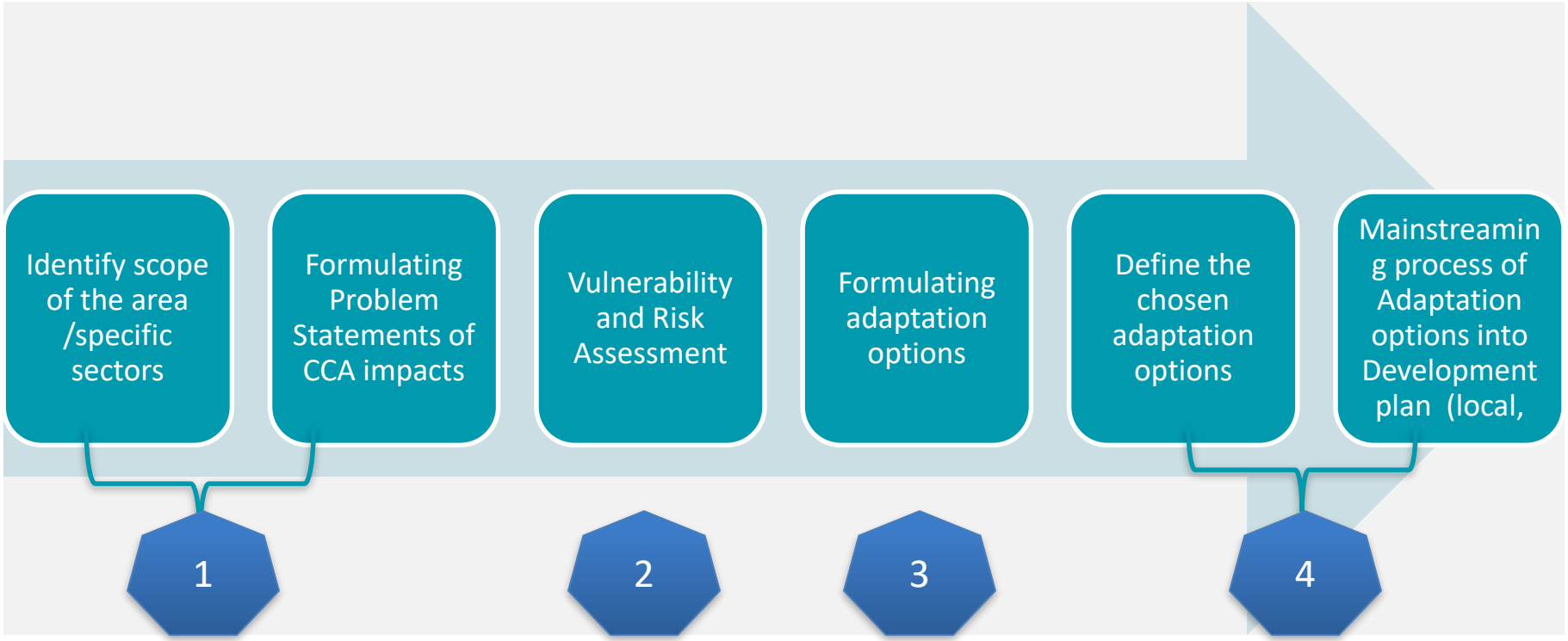
- Enhancement of adaptive capacity by developing early warning systems, broad-based public awareness campaigns, and public health programmes;
- Development of community capacity and participation in local planning processes, to secure access to key natural resources;
- Ramping up disaster preparedness programmes for natural disaster risk reduction;
- Identification of highly vulnerable areas in local spatial and land use planning efforts.
- Improvement of human settlements, provision of basic services, and climate resilient infrastructure development.
- Conflict prevention and

Ecosystem and landscape resilience

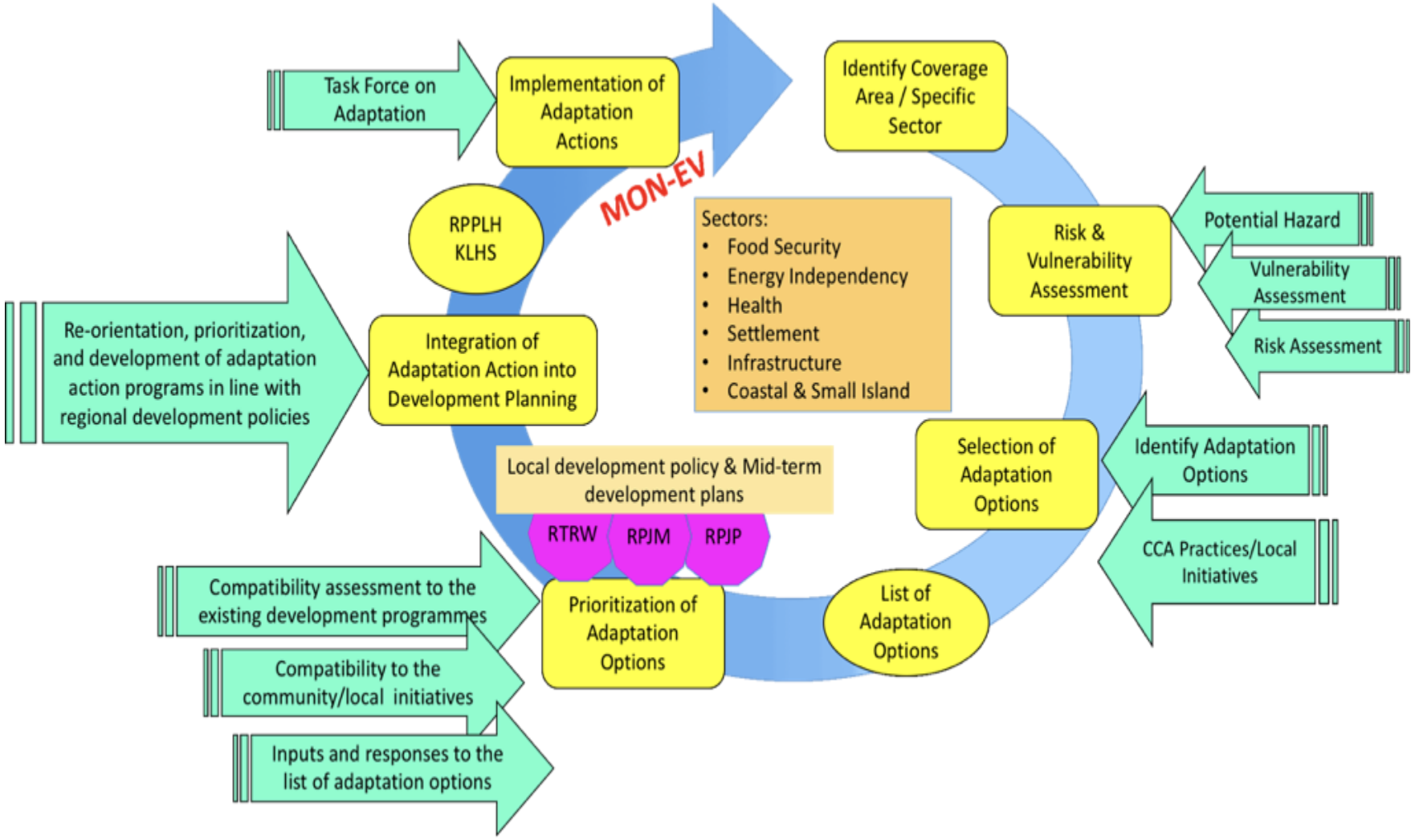
- Ecosystem conservation and restoration
- Social forestry
- Coastal zone protection
- Integrated watershed management
- Climate resilient cities

Minister of Environment and Forestry Regulation No. 33 /2016 regarding Guidance on Formulation Climate Change Adaptation Action Plan

Guidance for State and Non –state Actors (Line Ministries, Local Authorities, and Development Partners) in formulating CCA Plan



Guidance to Develop Adaptation Action (MOEF regulation No. P33/2016)



EbA Identification Steps

(Guideline Draft of EbA)

Selecting location or ecosystems Areas

Identifying of the pressure factors to ecosystems : Climate and Non-Climate

Identifying of Current Condition of Ecosystems:

a. Ecosystem Composition,
b. impacts on ecosystems :climate(history and projection) and non climate
c. Ecosystem services
d. Impacts on ecosystem services

Adaptation Actions

Barrier and challenge from piloting to upscalling

- Ownership of the pilot and benefit to the community and local government
- Integration to policy and program local government and national government
- Institutional, human resource and financial capacity

Key Ingredients to strengthen EbA Implementation and Upscalling

THANK YOU

(Terimakasih)

Ecosystem based Adaptation Challenges- From pilots to mainstreaming.

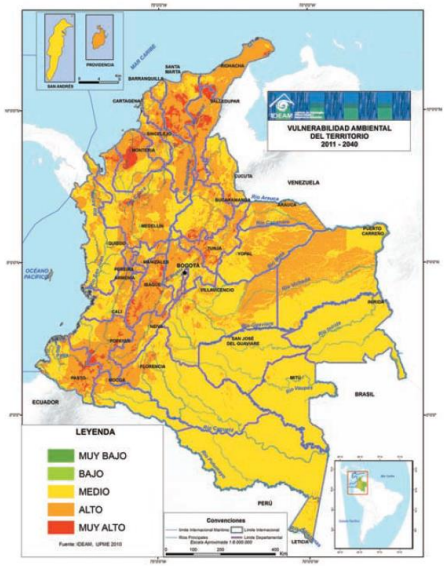
Angela Andrade

Chair IUCN Commission on Ecosystem Management-**CEM UICN**

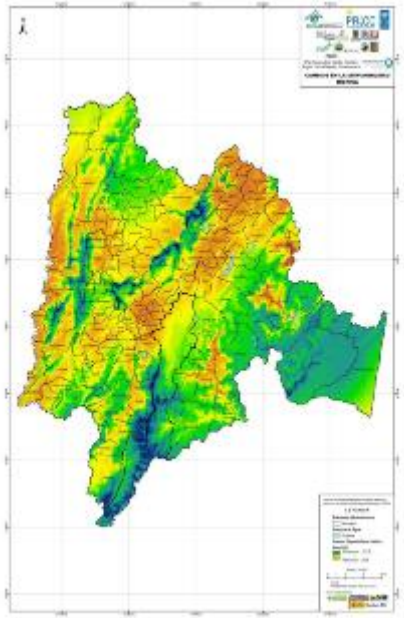
Policy Director- Conservación Internacional-Colombia

Policy & Planning

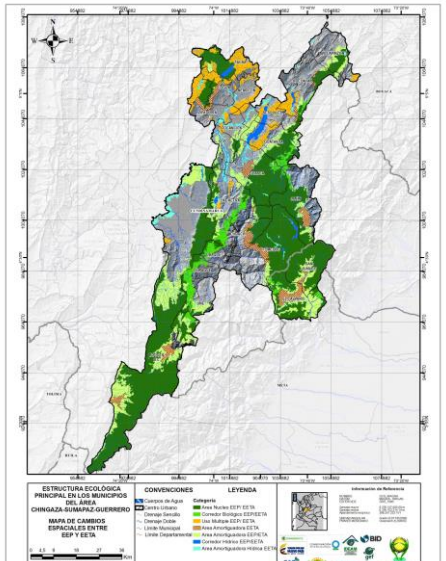
National



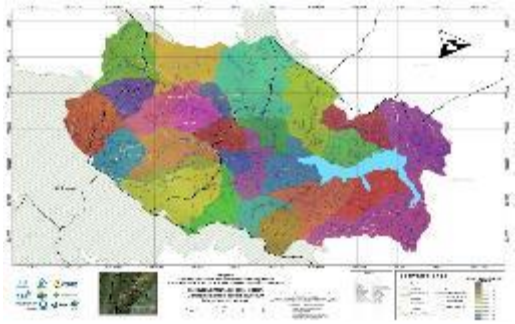
Subnational

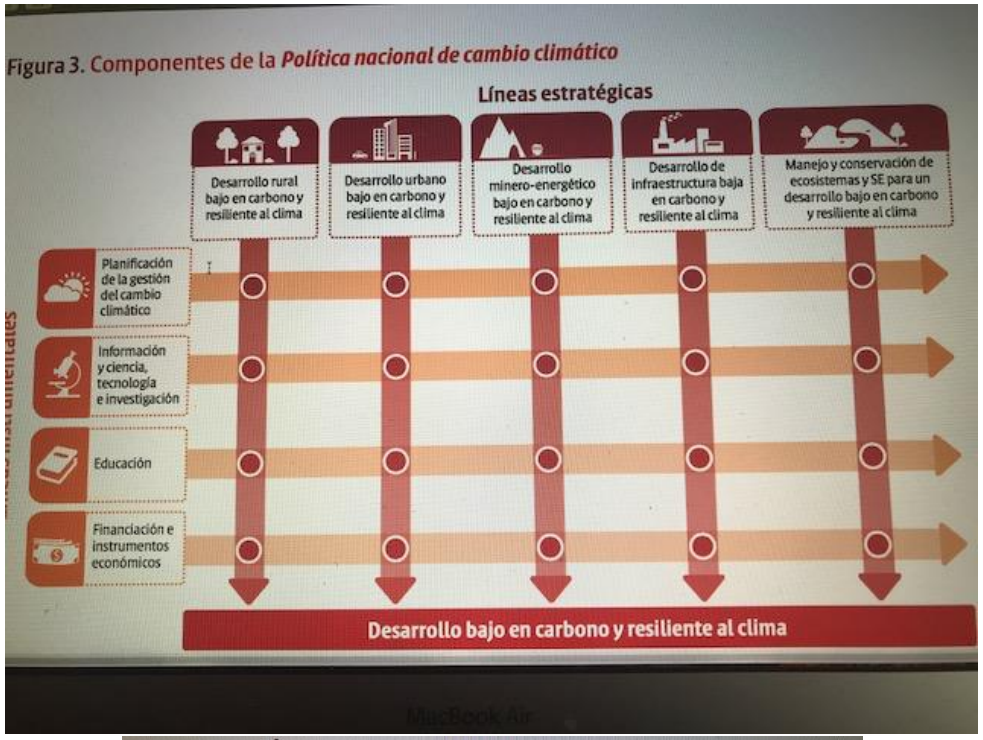


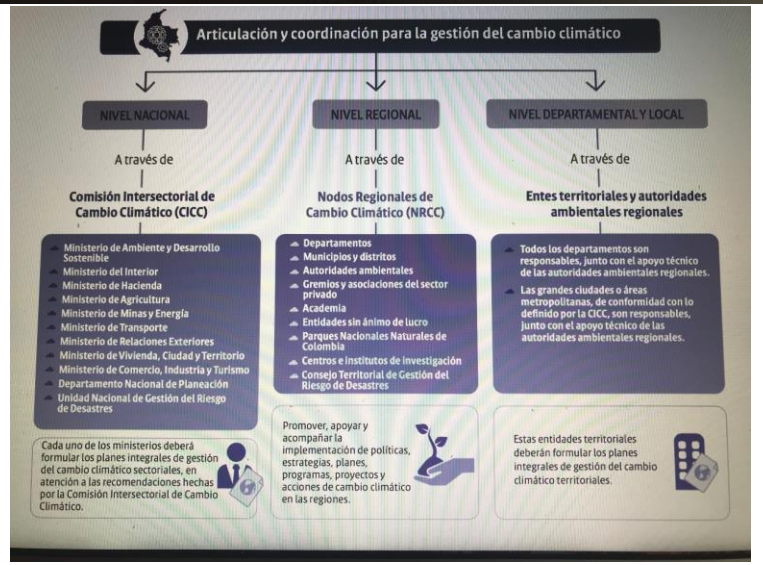
Municipal & Watershed



Adaptive Land Use Plans- Community Level



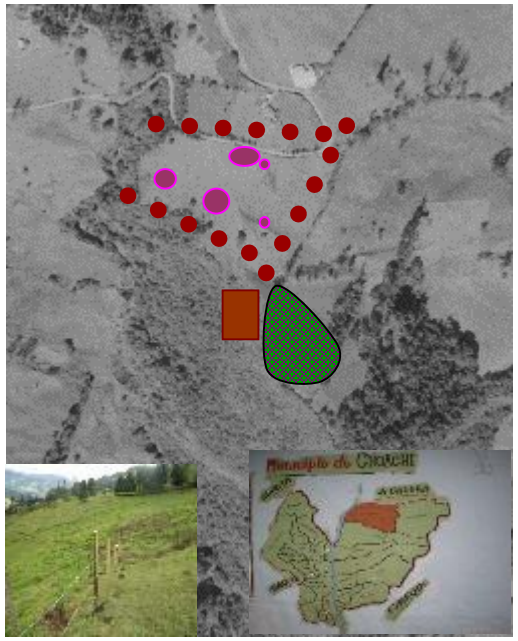




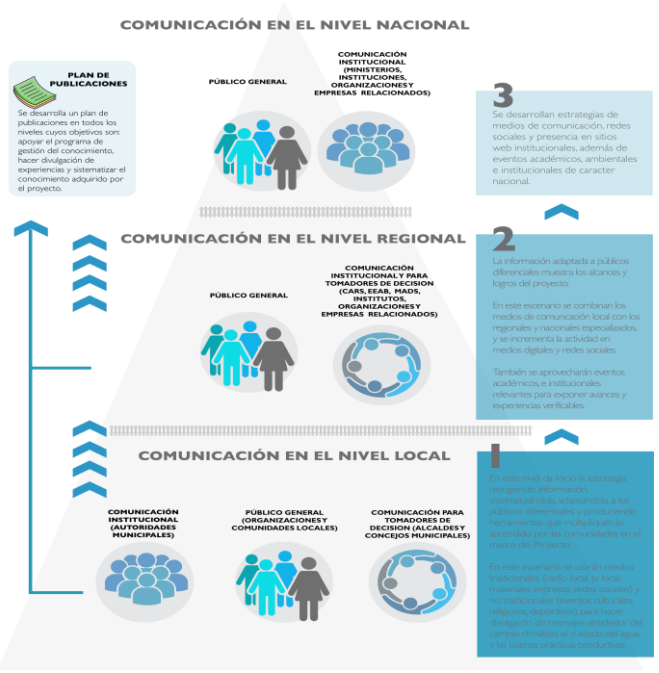
EbA interventions at Project level Examples.

Restoration/Land Use change

Land use Plans Community/Farm level



Communication



Monitoring and Evaluation

Communities/ Academia, research institutes.

Capacity Building

Involving communities and key stakeholders/
Development of learning communities.

Barriers

- **Institutional rigidity** and difficulties in working **across sectoral** or **jurisdictional interests**. Divergent views of the same environmental resources by different stakeholders, and competition with other priorities.
- Cross-sectoral thinking limited by **insufficient decision maker experience.**
- Lack of consistent **measures of progress**.
- **Short term** thinking.
- Only few ecosystem services are addressed and **insufficient knowledge about ecological processes and trade-offs** persist.
- Limited understanding of **what indicates "good adaptation"**.

Main Challenges

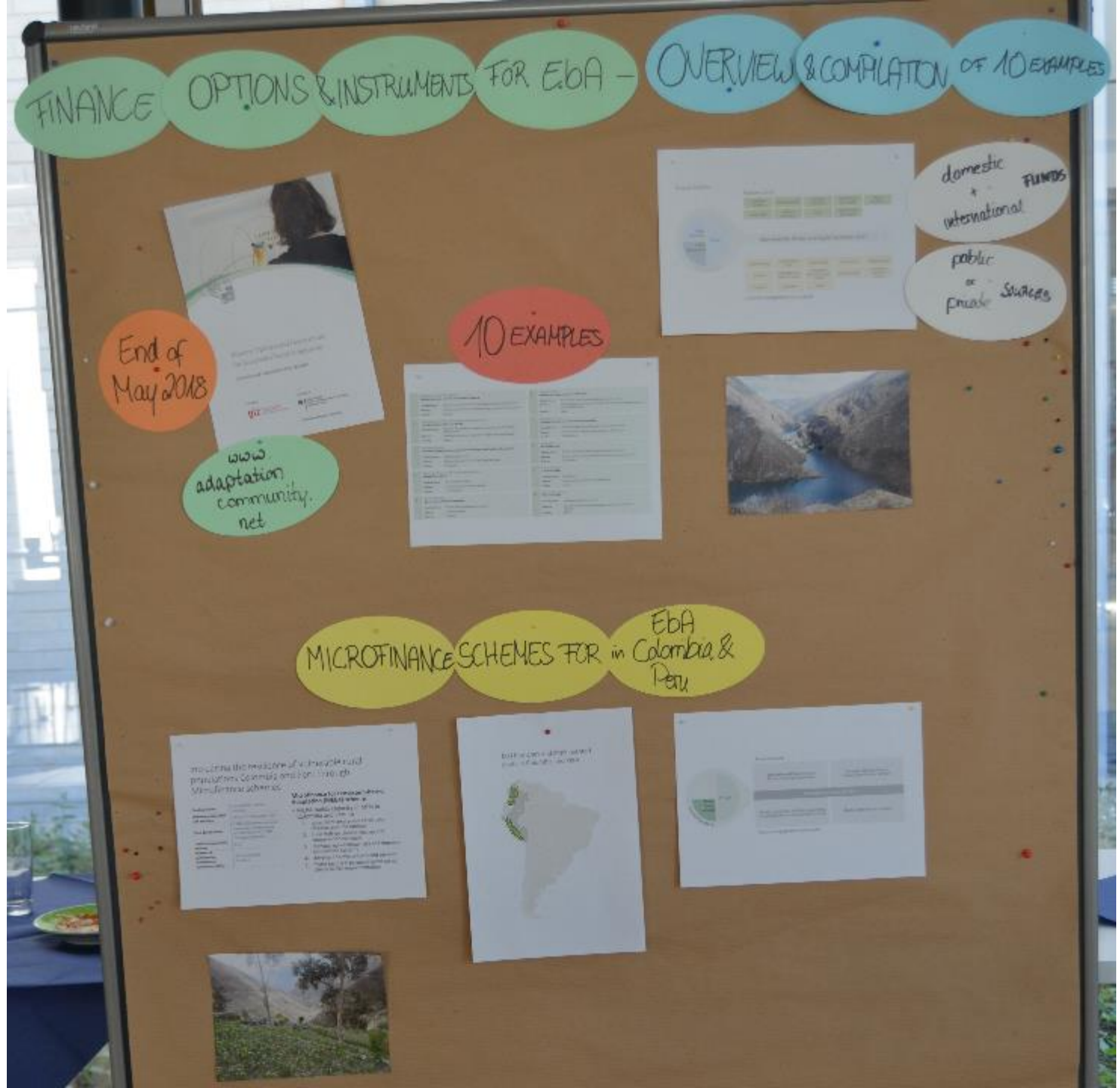
- To develop a theory of change from projects to territories: projects alone cannot address the **complex challenges of adaptation**.
- Promote **polycentric approach to governance**: complementarity between scales, levels and sectors and develop feedback cycles.
- **Adaptive governance** to implement solutions/ promote innovation.
- Consider m**ain drivers of land use change** and sustainability: population change/migration/urbanization/agriculture.
- Develop I**nformal communication** goals and key messages to different audiences.
- **Involve private sector** in implementation and upscaling.
- **Change of consumption patterns**.
- Develop Innovative financing mechanisms: credits local farmers.
- Improve the evidence of ecosystem management practices in mitigation and adaptation.

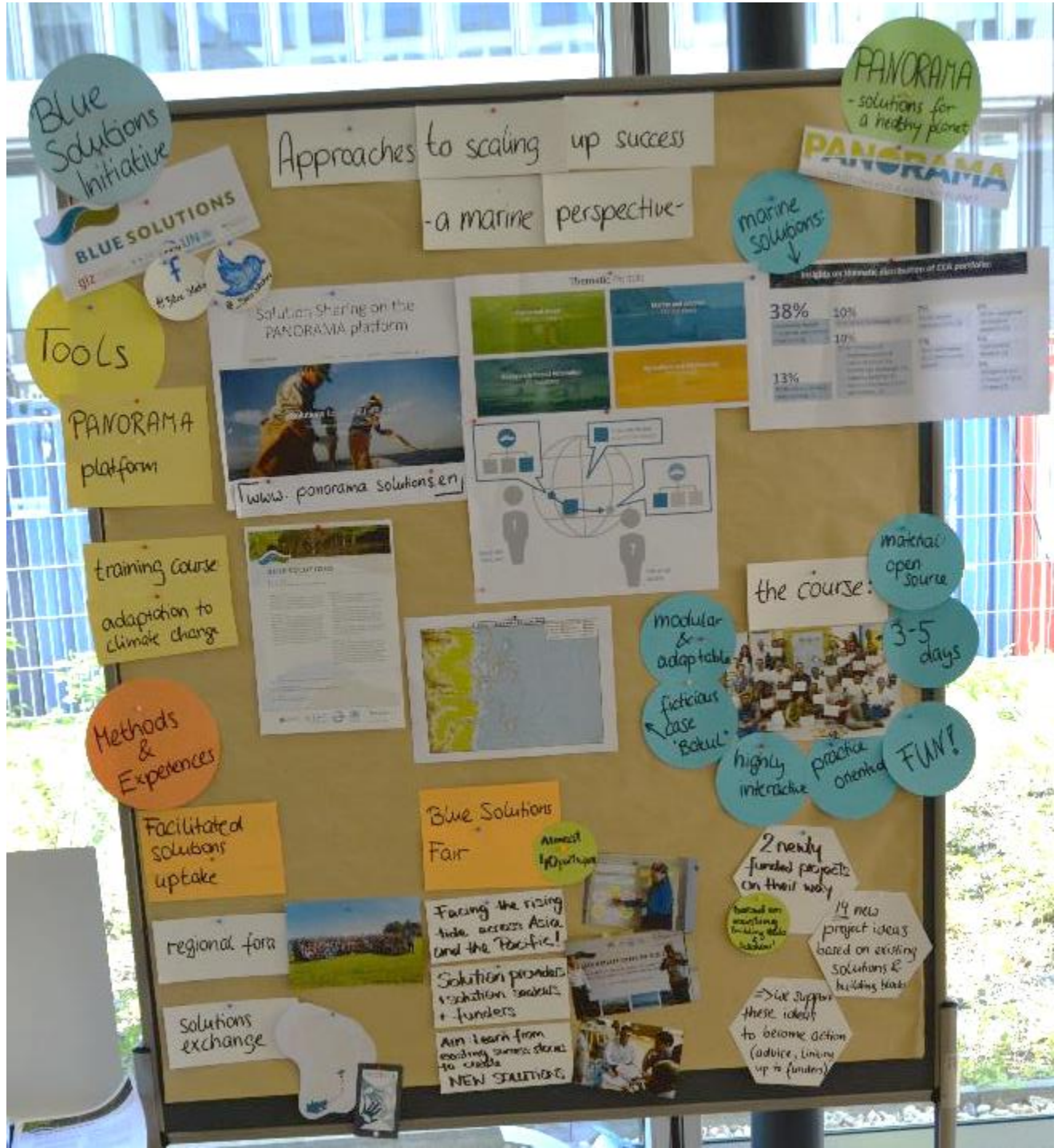
Muchas Gracias

Feliz Cumpleaños EbA

Contact: Angela.Andrade@IUCN.org
aandrade@conservation.org


Market Place


FINANCE OPTIONS & INSTRUMENTS FOR EbA – OVERVIEW & COMPILATION OF 10 EXAMPLES
End of May 2018
www adaptation community. net
10 EXAMPLES
domestic + international FUNDS
public or private SOURCES
MICROFINANCE SCHEMES FOR EbA in Colombia & Peru


Blue Solutions Initiative
BLUE SOLUTIONS
Approaches to scaling up success
-a marine perspective-
PANORAMA
- solutions for a healthy planet
PANORAMA
marine solutions:
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adaptation to climate change
Methods & Experiences
the course:
material open source
3-5 days
modular & adaptable
fictitious case 'Bokul'
highly interactive
practice oriented
FUN!
Facilitated solutions uptake
Blue Solutions Fair
regional fora
Facing the rising tide, across Asia and the Pacific!
Solution providers + solution seekers + funders
Aim: learn from existing success stories to create NEW SOLUTIONS
2 newly funded projects on their way
14 new project ideas based on existing solutions & building blocks
=> we support these ideas to become action (advice, linking up to funders)
Solutions exchange


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United for life and livelihoods
SCALING UP EbA IN MESOAMERICA


IUCN
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OUR PROCESS
FOR EBA
Knowledge & Evidence
Traditional
Scientific
KNOWLEDGE SHARING
ECOSYSTEM BASED ADAPTATION HUB

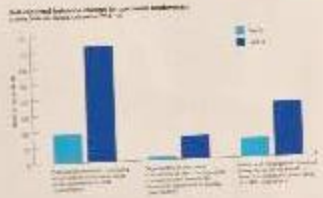
Ecosystem-Based Adaptation Through Behavior Change

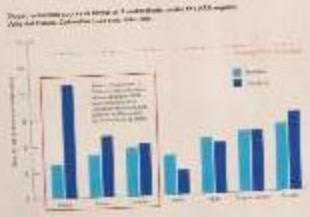
What is the one variable that is central and essential to meaningful climate action? People.

Rare's Pride approach uses behavioral insights – a method to change social norms and promote community participation in resource management – to build ecological and social resilience in the face of climate change.

Rare's Theory of Change builds upon decades of social science and has been applied in more than 300 Pride campaigns in over 50 countries over the last thirty years. Studies have shown that Attitude and Interpersonal Communication are the greatest single factors to explain behavior change.

Fostering resilience in Colombia's watersheds





Planned Project: Empowering communities to adopt ecosystem-based-adaptation measures for securing food and livelihoods in Asia Pacific

THE SOCIAL DIMENSION OF EBA IN COLOMBIA

Preliminary Results of DIE Field Research 2018

Felix Weinsheimer, Alessandro Doehnert, Eric Philipp, Lukas Kleiner, Marjam Mayer, Julia Morawietz, Jean Carlo Rodriguez and Carmen Richerzhagen

d·i·e
Deutsches Institut für Entwicklungspolitik
German Development Institute

1 Introduction

Despite many EbA projects being implemented worldwide, there is a lack of demonstrable evidence of either the effectiveness of EbA approaches in meeting adaptation goals or their delivery of other ecosystem service co-benefits that are claimed for them.

This research gap led to the following **research questions**:

1. What kinds of social benefits and costs do the EbA projects under assessment generate for the local communities?

How are the benefits and costs distributed among individuals and social groups?

2. Which factors contribute to the generation and distribution of social benefits and costs of EbA projects?

In order to find answers to these questions, we investigated two EbA projects in Colombia, a country that is known for its rich biodiversity. Its 98 ecosystems are home to 54,871 species. Climate change puts these ecosystems under pressure and negatively affects their functioning, the provision of ecosystem services (ES) and consequently human well-being.

2 Case studies

Ecosystem-based Adaptation to Climate Change in the Coastal City of Cartagena

Cartagena is particularly vulnerable to climate change, due to rising sea levels, an increase in rainfalls and the disappearance of coastal strips.

The BMU-funded GIZ project supports national and local authorities with integrating the approach of ecosystem-based adaptation to climate change into urban policies, plans and strategies.

Concrete measures comprise the restoration of natural stream and river flows in urban poor neighbourhoods and the conservation and restoration of nearby mangrove forests.

GIZ is strengthening the capacities of environmental organisations in the respective neighbourhoods. Like this, the project measures are connected to the local activities of the communities.

Integrated National Adaptation Project - Pilot Project in Colombia's High Andean mountains (Chingaza Massif)

Colombia's High Andean ecosystems are very rich in biodiversity and play an important role in the water provision for the communities and for Bogotá.

The adverse impacts of climate change like strong increases in temperature and a decrease in precipitation result in the loss of endemic species and endanger the provision of vital ecosystem services like water supply, basin regulation, and hydropower potential. Furthermore, they pose a risk for agricultural productivity.

The WB-funded project implemented by Conservation International (CI) implemented pilot adaptation measures. These included ecosystem planning and management to maintain biodiversity, adaptive land-use planning models to reduce impacts on land degradation, and the improvement of productive agro-ecosystems in order to reduce socio-economic vulnerabilities.

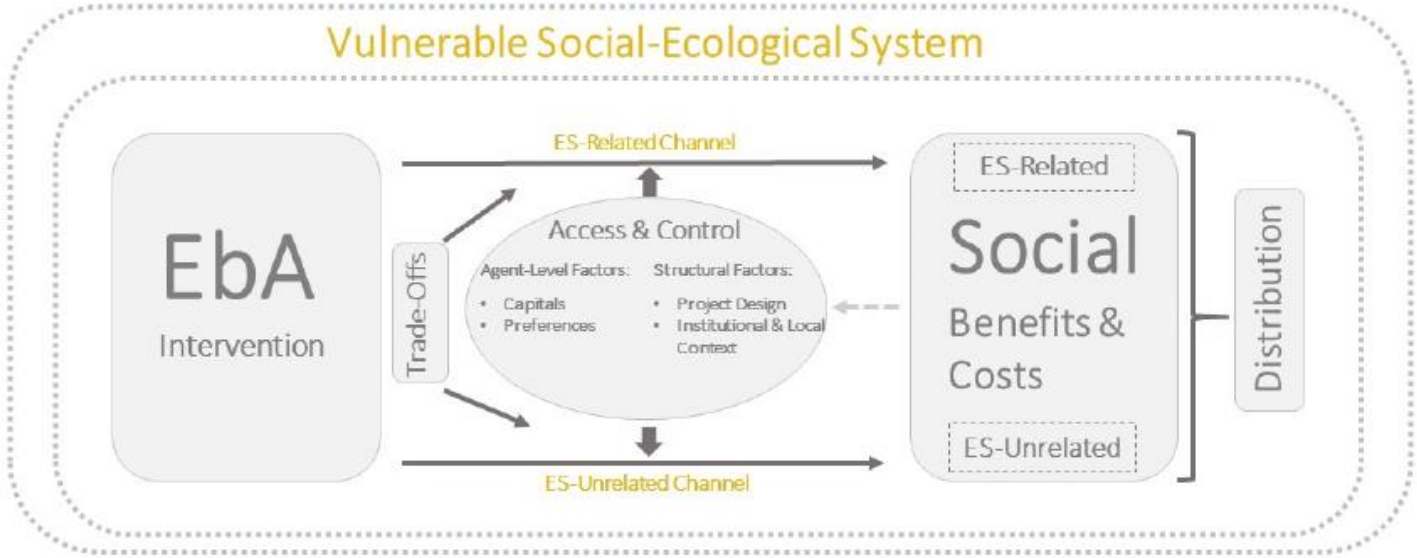







3 Conceptual Framework

Based on the guidelines proposed by FEBA (2017) and IIED (2017), we seek to assess the effectiveness of EbA projects in Colombia investigating social benefits and costs that are generated via two channels: one that is **unrelated to Ecosystem-Services** and one that is **related to Ecosystem-Services**.



4 Results

ES-Related Social Benefits
- Water & Food Provision
- Cultural Benefits
- Reduced Vulnerability
- Climate Regulation
- Economic Benefits
- Improved Biodiversity

ES-Unrelated Social Benefits
- Knowledge & Capacities
- Increased Awareness
- Empowerment
- Inputs
- Social Recognition
- Community Strengthening
- Employment

ES-Related Social Costs
- Change for the Worse
- Social Tensions
- Security Hazards

ES-Unrelated Social Costs
- Unsatisfied Expectations
- Unequal Distribution
- Social Tensions
- Opportunity Costs


Expert Dialogues

Session 4: Expert Dialogues

Expert Dialogue - Group 1:
Strengthening EbA through alignment of multiple national policy processes (SDG, NDC, NAP)

Saal Donau (BM 10027/29) (ground floor);

Facilitation: IISD (Anika Terton), GIZ (Michael Hoppe, Freelancer) / **Resource Person:** GIZ (Malte Maass), DIE (Hannah Janetschek)

Target group: Policy makers

Objective: This session aims to expand the understanding on how the alignment between multiple climate change relevant policy processes such as Sustainable Development Goals (SDGs), National Adaptation Planning (NAPs) and the implementation of nationally determined contributions (NDCs) can enhance and strengthen the implementation and upscaling of ecosystem-based adaptation

NAP Global Network

Coordinating Climate-Resilient Development

Strengthening EbA through alignment of multiple national policy processes (SDGs, NAPs and NDCs)

Anika Terton

3rd EbA Knowledge Day, May 7, 2018

Background I

- In 2015, separate global long-term agreements were reached aimed at putting human development on a more sustainable pathway
- International processes, including the United Nations Framework Convention on Climate Change (UNFCCC) and the 2030 Agenda for Sustainable Development, have recognized the need to consider climate change in efforts to achieve sustainable development – > make development climate-resilient
- Different agreements that have common goals and pathways

Background II

- Within countries, National Adaptation Plans (NAPs), Nationally Determined Contributions (NDCs) under the Paris Agreement and the adoption of national-relevant Sustainable Development Goals (SDGs) represent key policy processes that can advance climate-resilient development. (Implementation vehicles)

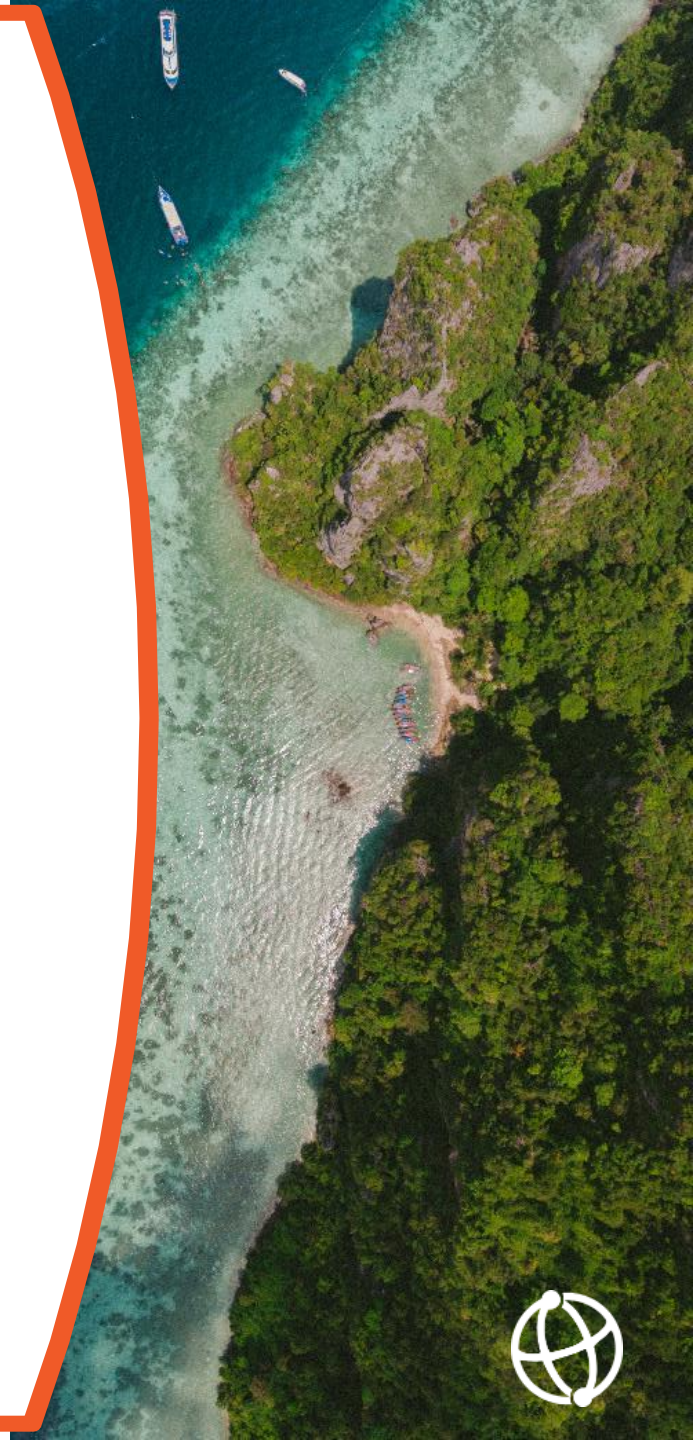
- Alignment of planning, implementation and monitoring & evaluation (M&E) under these different processes can increase both - efficiency and effectiveness towards climate-resilient development outcomes

What is Alignment?

Definition:

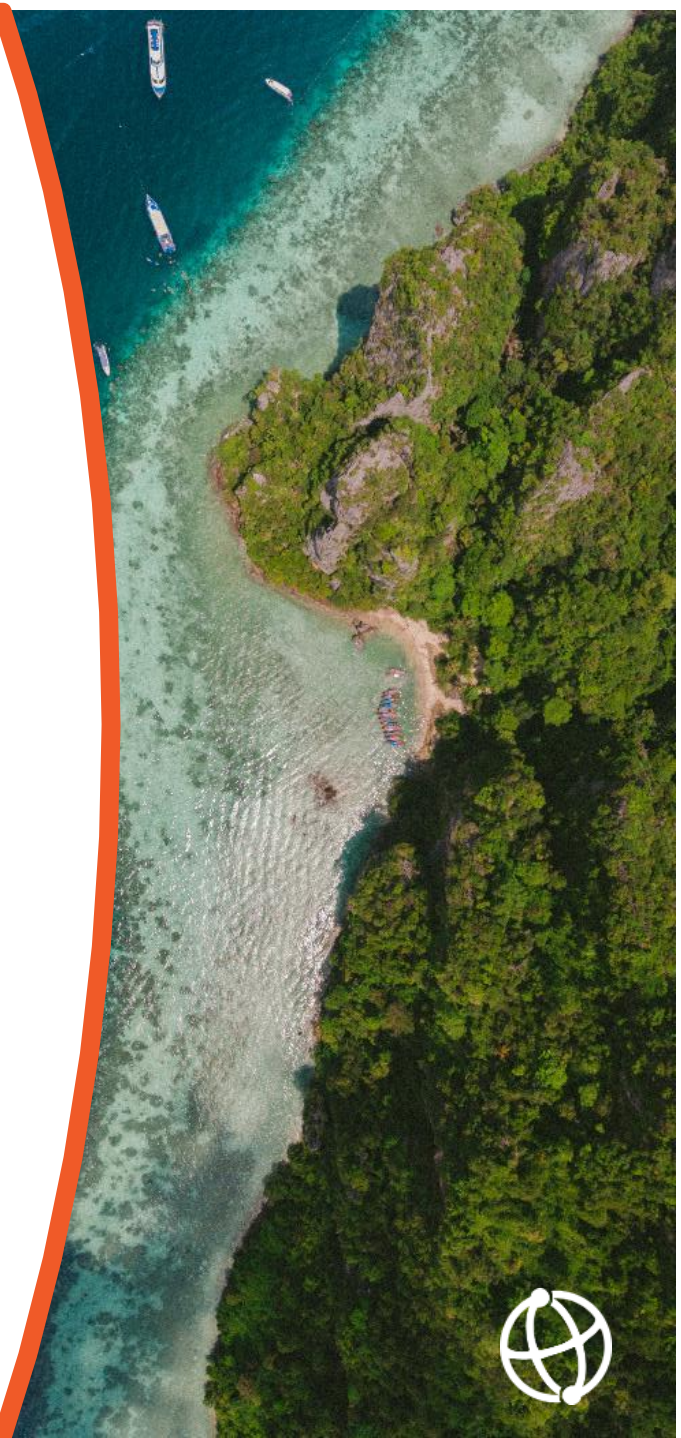
Alignment is the process of identifying synergies among policy processes with common objectives to increase efficiency and effectiveness for improved outcomes.

When applied to NAPs, NDCs, and SDGs, the goal of alignment is climate-resilient development.



Why Alignment?

- Avoid duplication of efforts and enables efficient use of resources
- To approach climate-resilient development in an integrated way
- To facilitate the analysis of shared objectives, co-benefits and trade-offs between differing outcomes



Alignment vs. Mainstreaming

Alignment = Coordination

Coordination to find and maximize synergies between multiple planning processes with common goals

Mainstreaming = Integration

Integrating climate change adaptation into policy-making, budgeting, implementation and monitoring

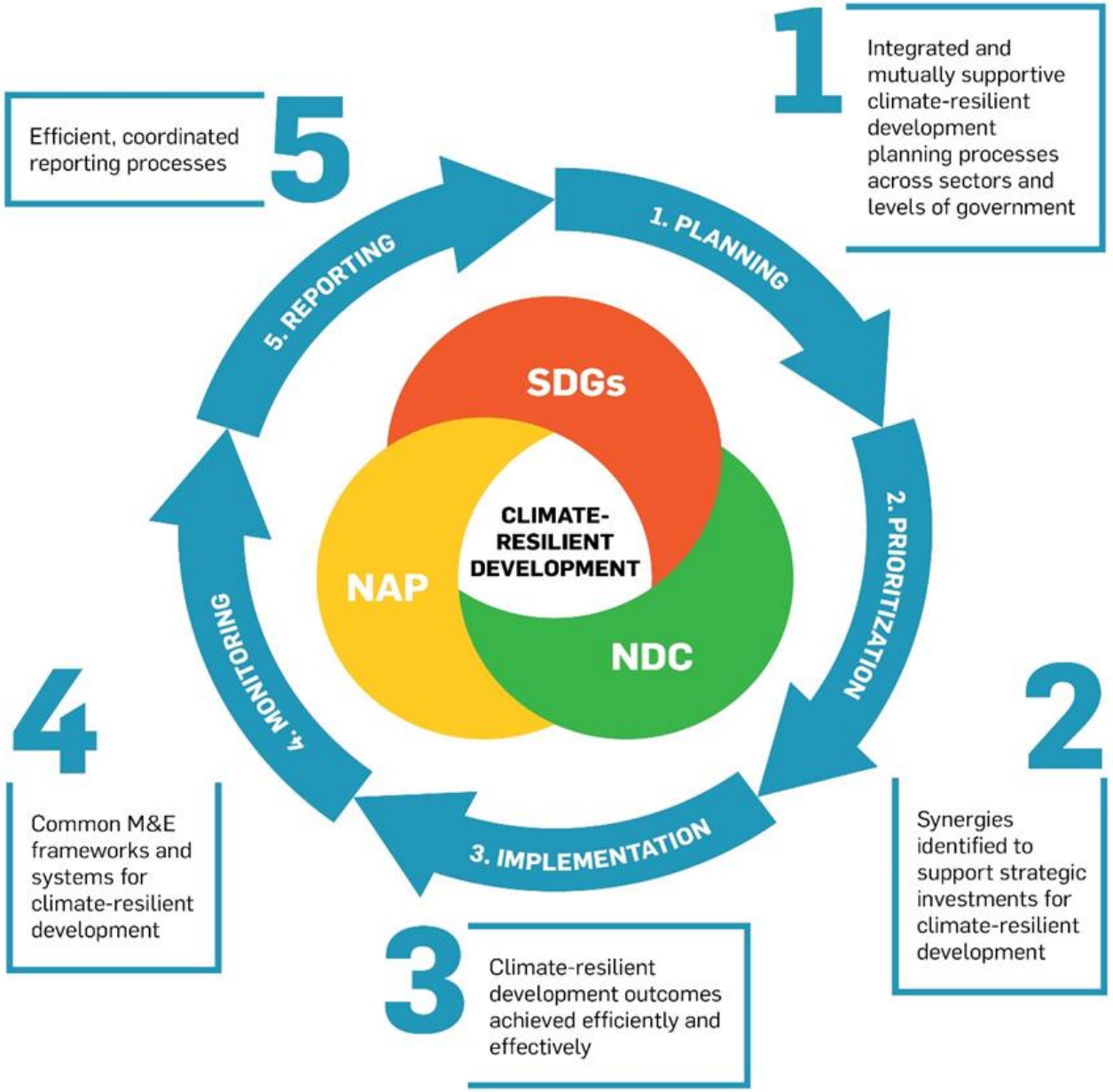
Alignment for EbA

- Ecosystem services and biodiversity can play an important contributing role to adaptation
- “Ecosystems” and “EbA” are common themes found across countries’ NAPs, NDCs and the SDGs
- NAP process must take ecosystems into consideration
- SDG 15 addresses “Life on Land” and SDG 14 addresses “Life Below Water”
- 109 of the 162 NDCs submitted indicated ecosystem-orientated visions for adaptation

Benefits of Alignment for EbA

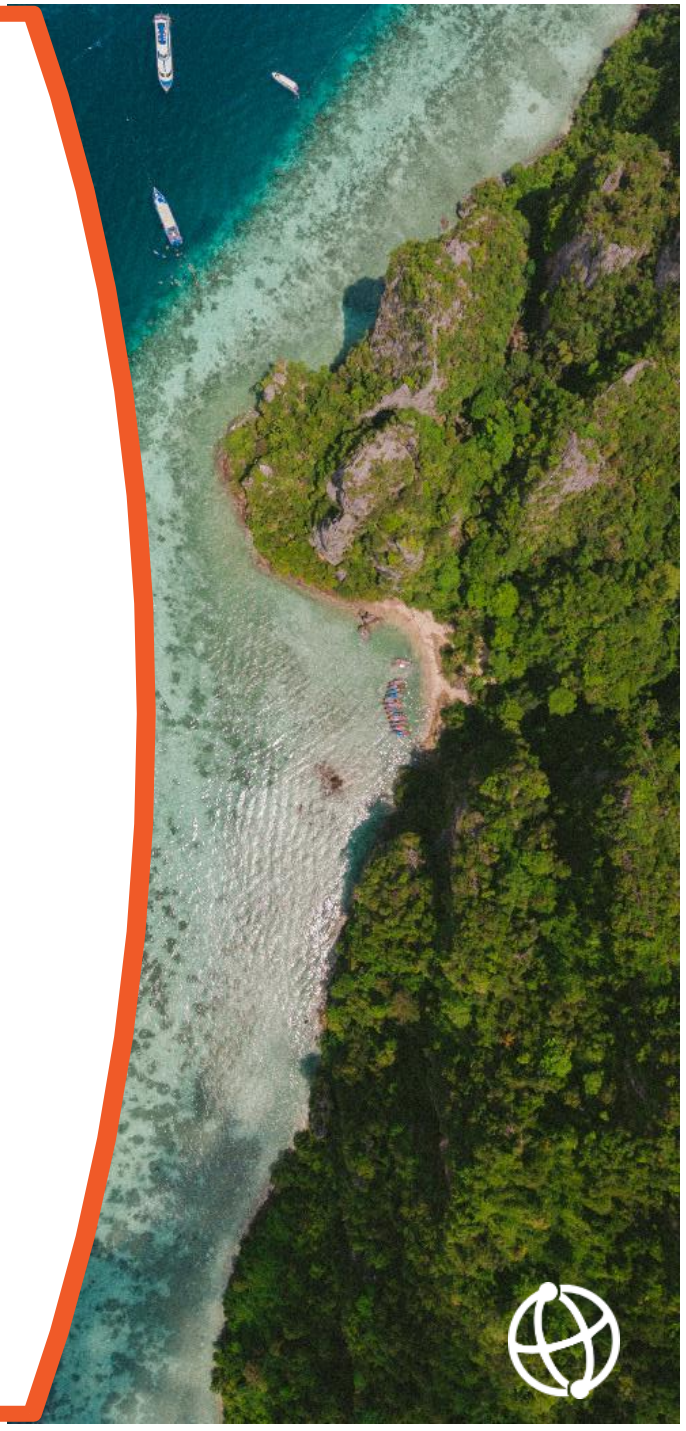
- Strengthens the consideration of ecosystems across all different policy processes in an integrated manner
- Ensures that one policy process does not select activities that will negatively impact biodiversity and ecosystems, thus reducing resilience and adaptive capacity
- Reducing duplication and redundancy

Entry Points for Alignment



Enabling Factors for Alignment?

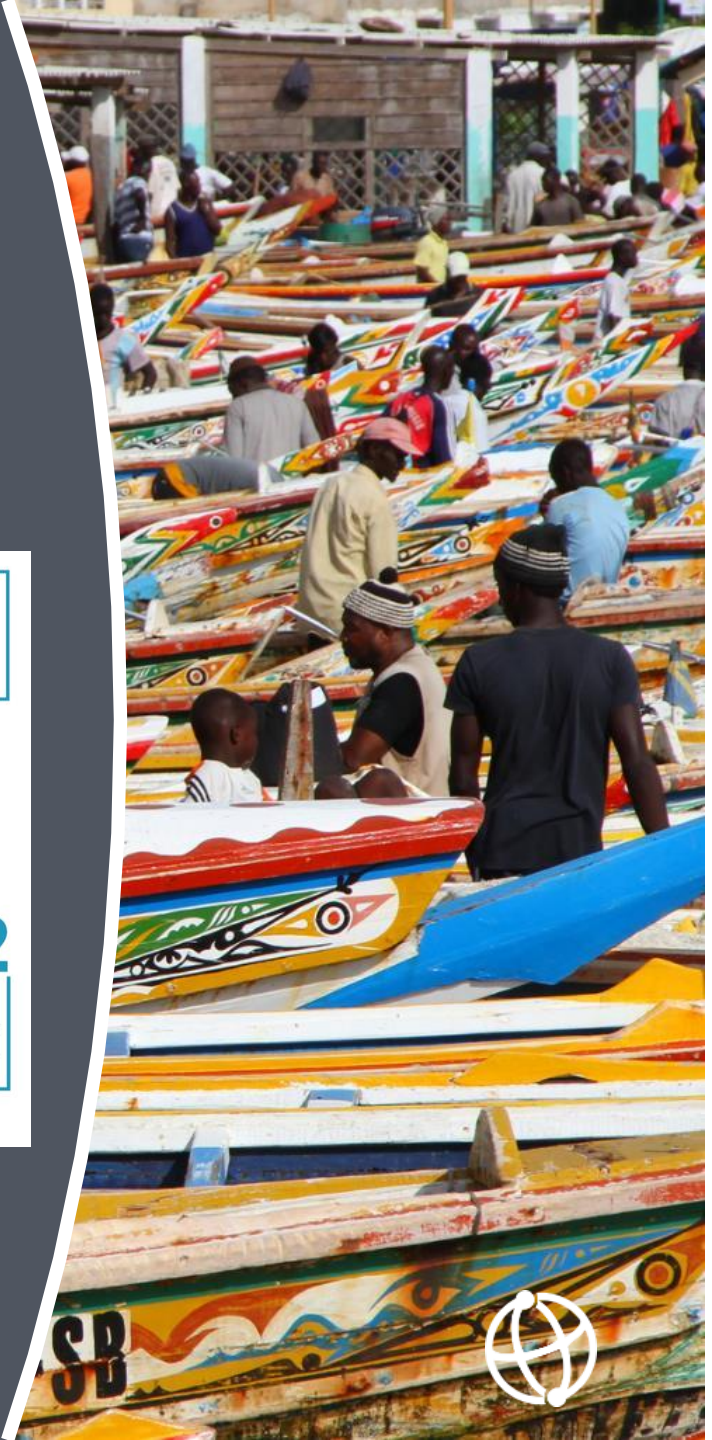
- Institutional Arrangements
- Information Sharing
- Capacity Development



Group Discussion: Alignment for EbA

- What are practical actions EbA practitioners could contribute at each stage:
  - (1) Planning
  - (2) Prioritization
  - (3) Implementation
  - (4) Monitoring
  - (5) Reporting

- What are typical constraints to alignment and how can they be overcome?



NAP Global Network

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This project is undertaken with the financial support of:

Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety

Federal Ministry for Economic Cooperation and Development

Secretariat hosted by:

IISD

Session 4: Expert Dialogues

FEBA
Friends of Ecosystem-based Adaptation

Expert Dialogue - Group 2:
Leveraging EbA and Eco-DRR synergies for a successful upscaling into key sectors

Saal Donau (BM 10027/29) (ground floor);

Facilitation: EHS-UNU (Zita Sebesvari) & GIZ (Mathias Bertram) / **Resource Persons:** CBD Secretariat (Sakhile Koketso)

Target group: Policy makers, planners

Objective: This session aims to explore how synergies between EbA and Eco-DRR approaches can be used to successfully scale them up into key sectors such as planning & finance, agriculture and water.

Convention on Biological Diversity

United Nations Decade on Biodiversity

Voluntary guidelines for the effective design and implementation of ecosystem-based approaches to climate change adaptation and disaster risk reduction

Sakhile Koketso
CBD Secretariat

United Nations Decade on Biodiversity

UNEP

Background

- The voluntary Guidelines for the effective design and implementation of ecosystem-based approaches to climate change adaptation and disaster risk reduction have been prepared pursuant to paragraph 10 of decision XIII/4.
- The voluntary guidelines are intended to be used as a flexible framework for planning and implementing EbA and Eco-DRR

Principles and safeguards

Principles:

- Principles for building resilience and enhancing adaptive capacity through EbA and Eco-DRR
- Principles for ensuring inclusivity and equity in planning and implementation
- Principles for achieving EbA and Eco-DRR on multiple scales
- Principles for EbA and Eco-DRR effectiveness and efficiency

Safeguards:

- Applying environmental impact assessments and robust monitoring and evaluation
- Prevention of transfer of risks and impacts
- Prevention of harm to biodiversity, ecosystems and ecosystem services
- Sustainable resource use
- Promotion of full, effective and inclusive participation
- Transparent governance and access to information
- Respecting human rights including rights of indigenous peoples and local communities

Overarching considerations

Integrating knowledge, technologies, practices and efforts of indigenous peoples and local communities

– Traditional knowledge and coping strategies can form an important basis for climate change and disaster risk reduction responses
– can play a significant role in identifying and monitoring climatic, weather and biodiversity changes and impending natural hazards, similarly to early warning systems
– involves an appreciation of their *cosmovisión*, and an acknowledgement of their role as knowledge holders and rights holders

Mainstreaming EbA and Eco-DRR

– integration of ecosystem-based approaches into climate- and disaster-sensitive planning and decision-making processes at all levels
– enhances the effectiveness, efficiency, and longevity of EbA and Eco-DRR initiatives
– occurs continuously throughout EbA and Eco-DRR planning and implementation

Raising awareness and building capacity

– Communicating the multiple benefits of EbA and Eco-DRR across sectors, communities of practice, and disciplines is crucial to enhancing uptake and sustainability of initiatives, in addition to opening avenues for funding

Stepwise approach to design and implementation of effective EbA and Eco-DRR

Step A. Understanding the social-ecological system

Step B. Assessing vulnerabilities and risks

Step C. Identifying EbA and Eco-DRR options

Step D. Prioritizing, appraising and selecting EbA and Eco-DRR options

Step E. Project design and implementation

Step F. Monitoring and evaluation of EbA and Eco-DRR

Thank you for your attention!

Secretariat of the Convention on Biological Diversity

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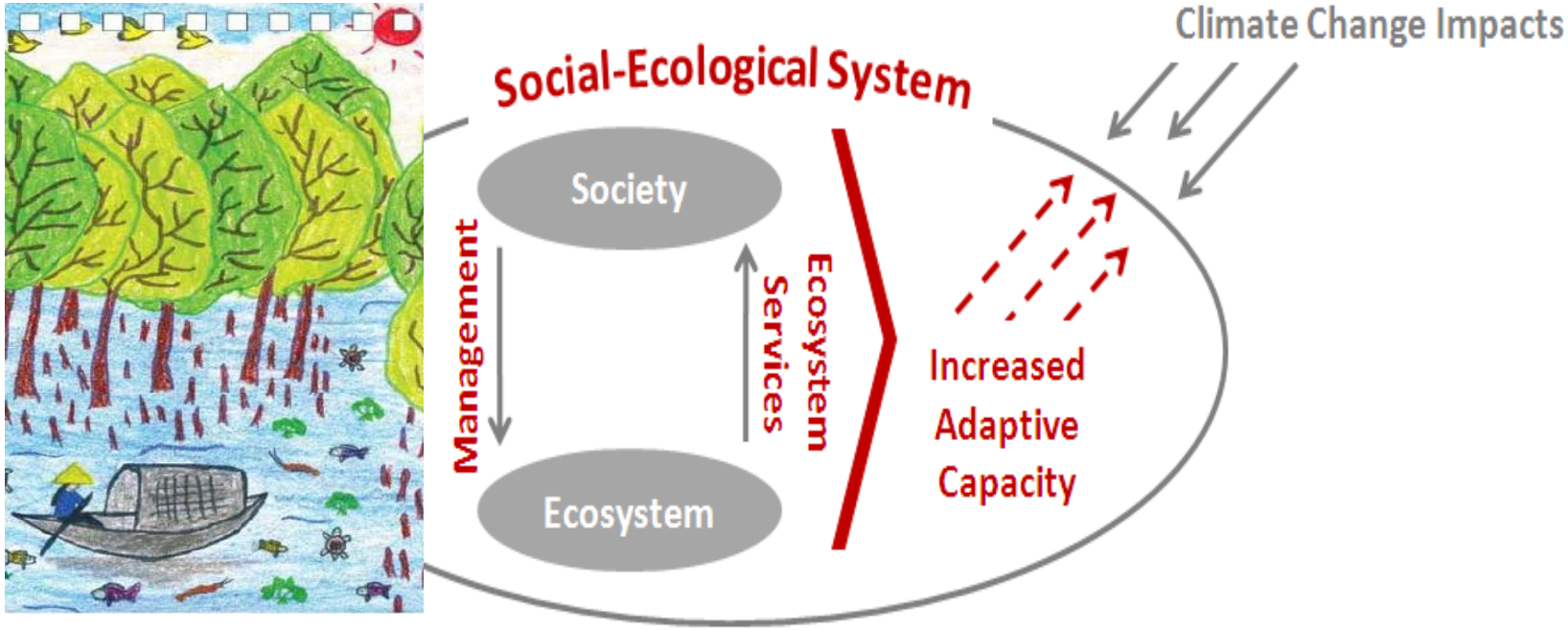
FEBA
Friends of Ecosystem-based Adaptation

Expert Dialogue - Group 2:

Leveraging EbA and Eco-DRR for a successful upscaling into key sectors



Facilitation: EHS-UNU (Zita Sebesvari) & GIZ (Mathias Bertram) / **Inputs:** CBD Secretariat (Sakhile Koketso) & GIZ (Mathias Bertram)

EbA&Eco-DRR – Related concepts

Ecosystem-based adaptation (EbA)

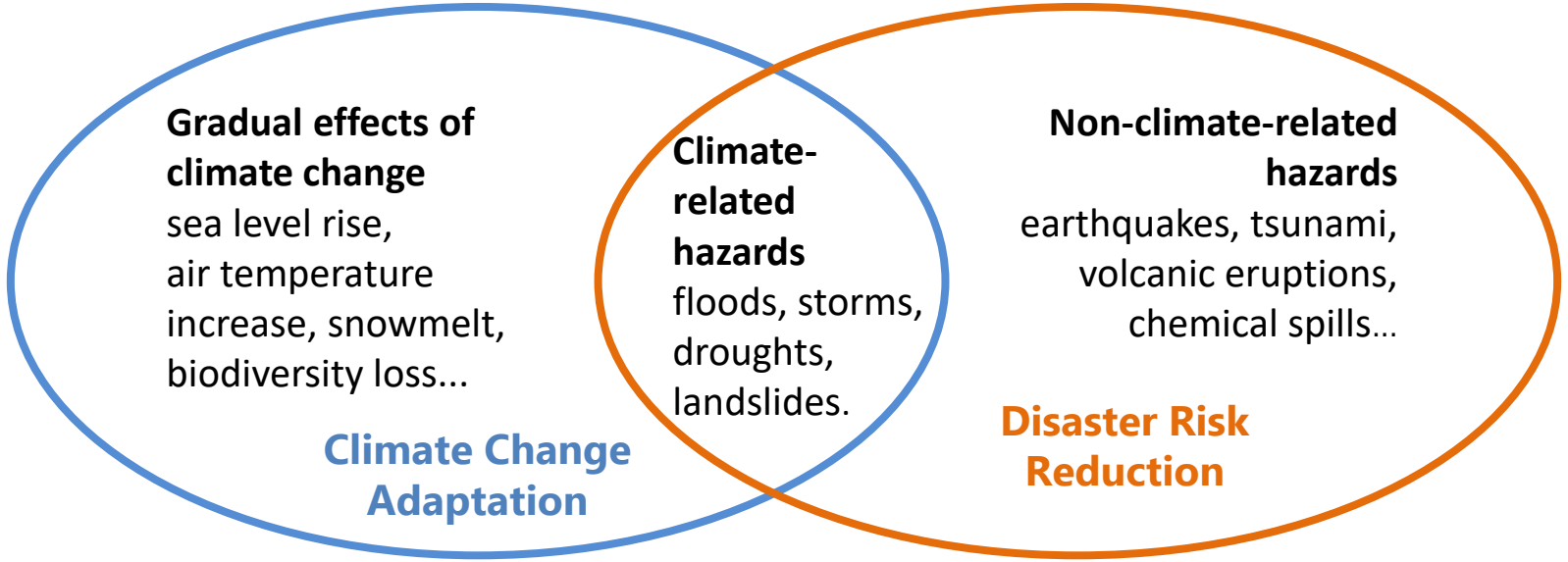
EbA is **the use of biodiversity and ecosystem services** as part of an overall adaptation strategy to **help people to adapt** to the adverse effects of climate change. It aims to maintain and increase the resilience and reduce the vulnerability of ecosystems and people in the face of the adverse effects of climate change (CBD 2009).

Ecosystem-based disaster risk reduction (Eco-DRR)

Eco-DRR is the **sustainable management, conservation, and restoration of ecosystems** to **reduce disaster risk**, with the aim of achieving sustainable and resilient development (Estrella & Saalismaa 2013).

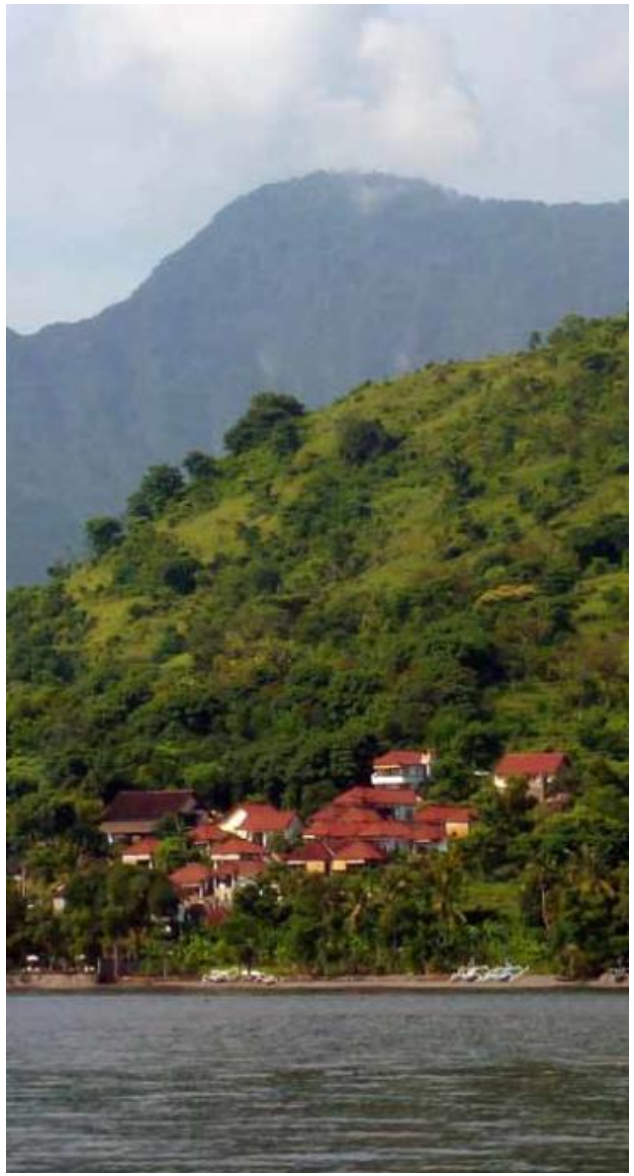
EbA&Eco-DRR – Synergies

Hazards/ impacts addressed



Source: Doswald, 2017

Examples of Ecosystem-based approaches	EbA	EbA/Eco-DRR	Eco-DRR
	- Forest species selection for future conditions based on climate projections. - Forest protection to assist with water retention in areas that are becoming drier. -Green and blue infrastructure in cities for heat management.	- Restoration of mangroves or salt marshes for coastal protection from storm surges. - Restoration of vegetation to stabilise slopes and for water management. -Ecosystem management for livelihood diversification.	- Avoiding dumping of hazardous materials in environmentally-sensitive areas or habitats during relief from disasters. - Environmental emergency preparedness programmes. -Protection forests that stabilize slopes against rock fall triggered by earthquakes.



Examples of essential ecosystem services in the context of climate change adaptation

Regulating services:

- Extreme event buffering
- Erosion prevention & fertility
- Climate & water regulation

Provisioning services:

- Fresh water provision
- Food provision

Source: TEEB

Multiple benefits of Eco-DRR /EbA

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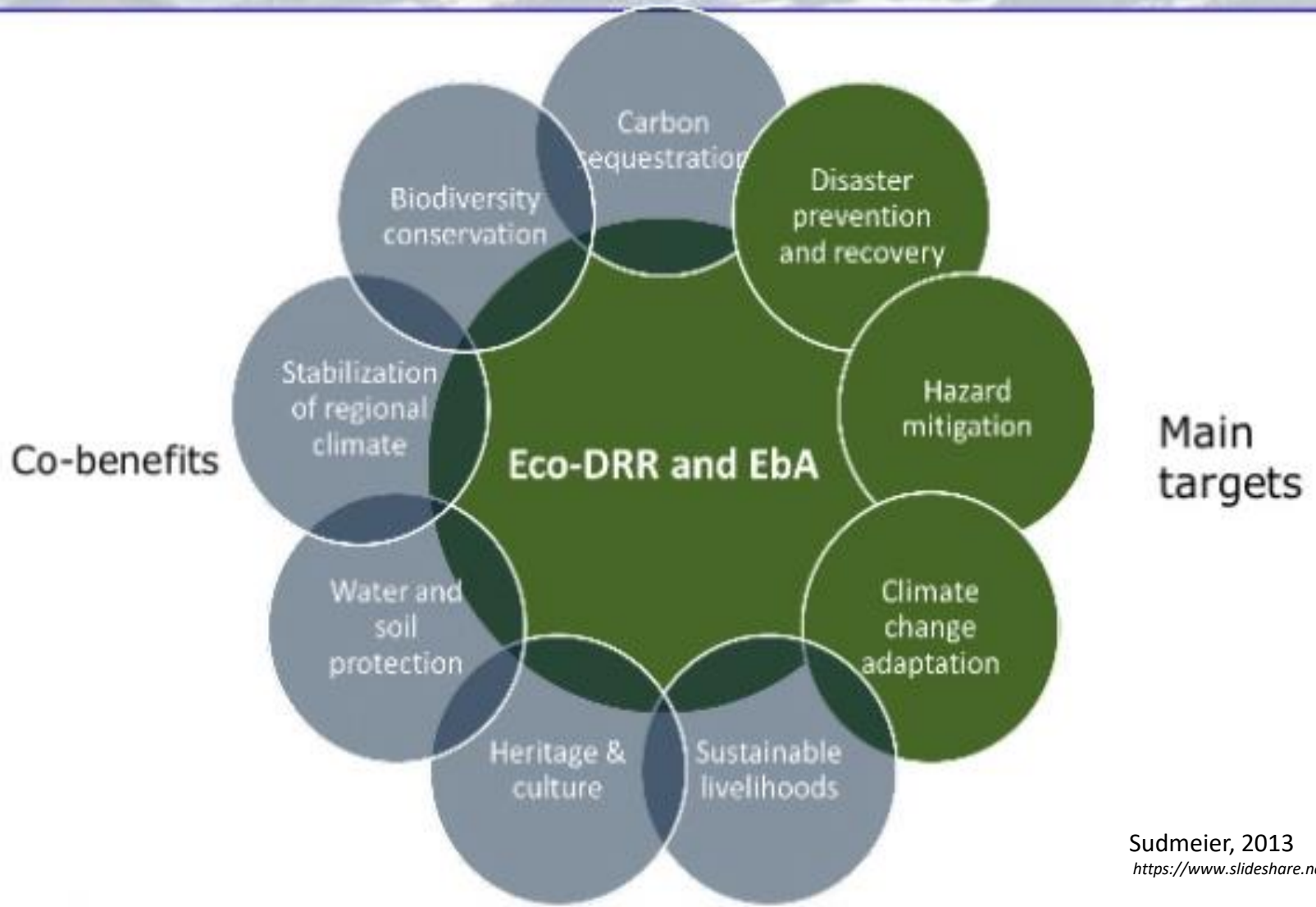
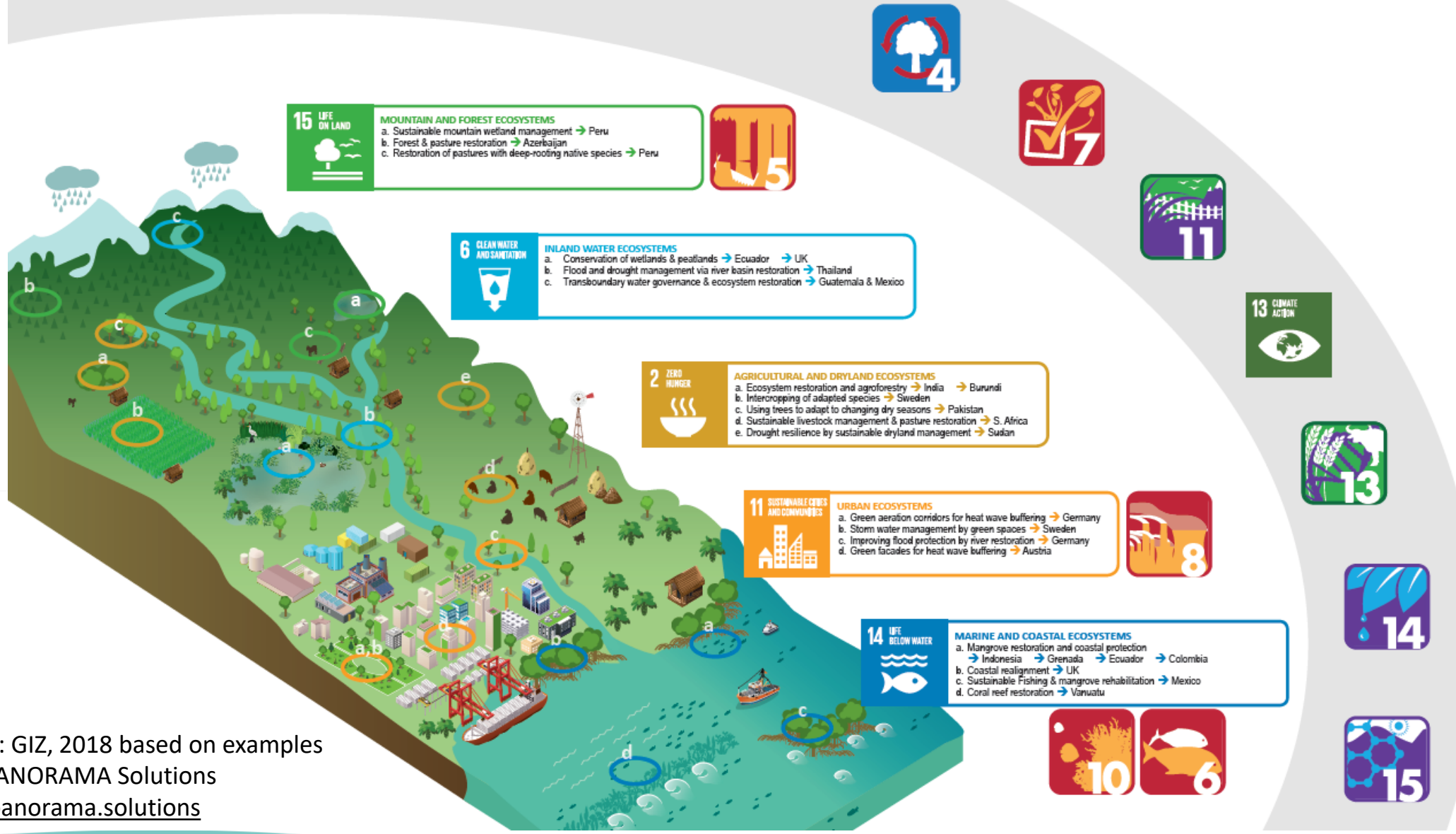


Sudmeier, 2013
https://www.slideshare.net/know4drr/sudmeier-may-2015-know-4-final

Ecosystem-based Adaptation & Disaster Risk Reduction Solutions addressing the Sustainable Development Goals and CBD Aichi targets in a Land- and Seascape



Source: GIZ, 2018 based on examples from PANORAMA Solutions
www.panorama.solutions

Link to CBD Voluntary Guidelines for EbA & EcoDRR

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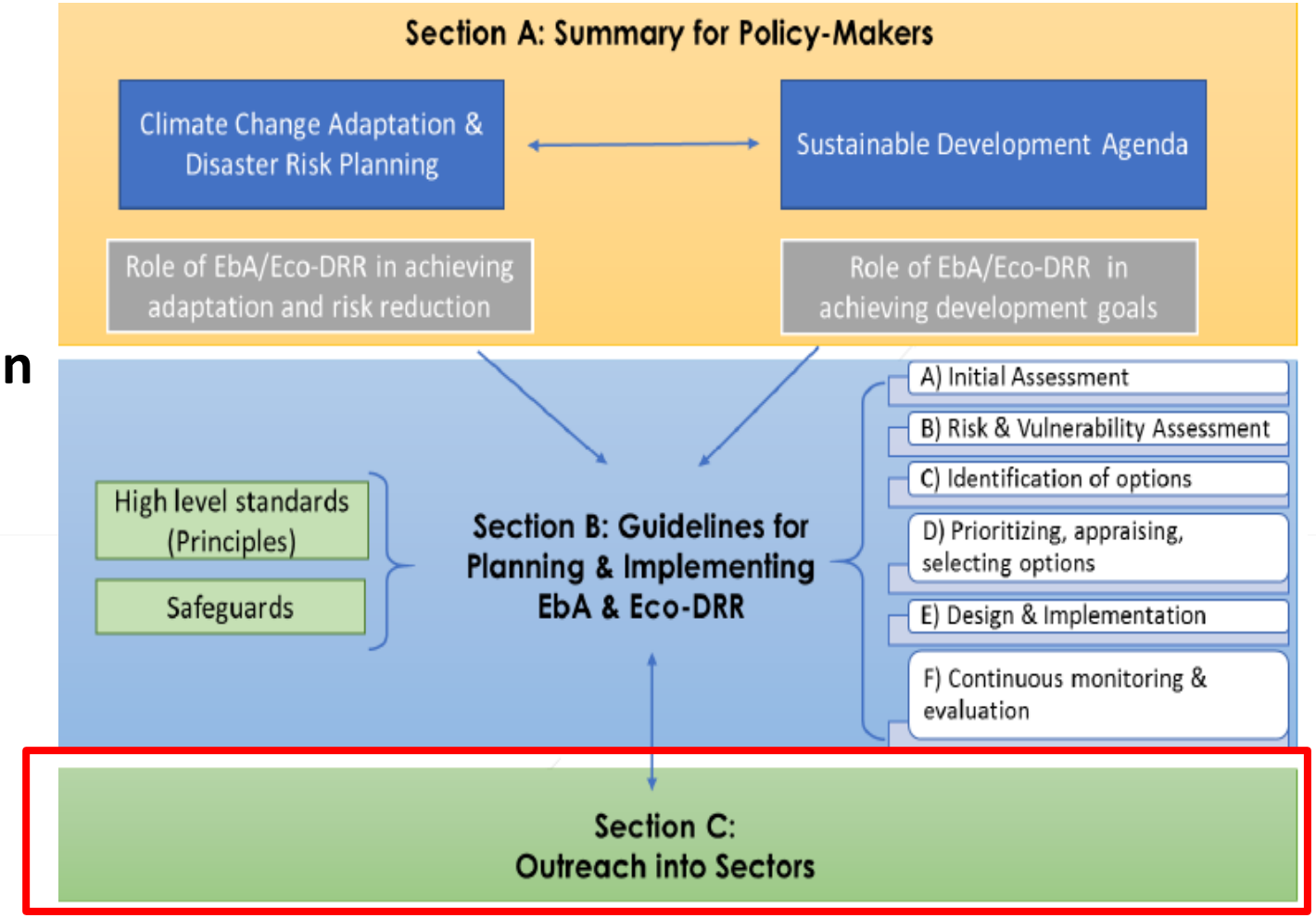
- para 10 of decision XIII/4, the **CBD Secretariat** has been preparing with partners **"voluntary guidelines on effective design and implementation of ecosystem-based approaches to climate change adaptation and disaster risk reduction"** for consideration of SBSTTA 22 and COP 14



Link to CBD Voluntary Guidelines for EbA & EcoDRR

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Section C

- need to develop **sector advocacy briefs to support EbA and eco DRR practitioners** and CBD focal points to more effectively reach into sectors.
- The target group are governmental agencies with the mandate to **mainstream EbA and Eco-DRR** into relevant sectoral policies and plans
- The sector briefs are ‘outreach products’. They shall help government agencies ‘to make the case for EbA/EcoDRR’ to sector ministries by providing
    - i) key considerations,
    - ii) arguments,
    - iii) examples, and
    - iv) recommendations

Scope of Expert dialogue

FEBA
Friends of Ecosystem-based Adaptation

Objective: This session aims to explore how synergies between EbA and Eco-DRR approaches can be used to successfully scale them up into key sectors based on the following draft sector briefs:

a) planning & finance,
b) agriculture and
c) water

Guiding questions:

1. *What are convincing arguments to take up EbA/Eco-DRR by the sector?*
2. *What are opportunities/entry points that support sector uptake?*
3. *What further action is required to support sector uptake?*

Session 4: Expert Dialogues

FEBA
Friends of Ecosystem-based Adaptation

Expert Dialogue - Group 3:
Showcasing EbA implementation to generate public & private funding for EbA, enhancing its upscaling

Meeting room BM12037 (2nd floor)

Facilitation: Rare (Ann-Kathrin Neureuther & Paolo Domondon) / **Resource Persons:** GIZ/AMBERO (Lili Ilieva & Kathleen Schepp)

Target group: Implementers

Objective: This session (bright-spot event) is an interactive session that uses proven local examples – so-called bright-spots – as starting points for discussions around what already works and how such lessons can be scaled up.

3rd EbA Knowledge Day – Expert Session on Showcasing EbA implementation to generate public and private funding for enhancing ist upscaling

Lessons Learnt from Case Study Analysis Peru and Vietnam

GIZ Bonn, Monday, 07.05.18

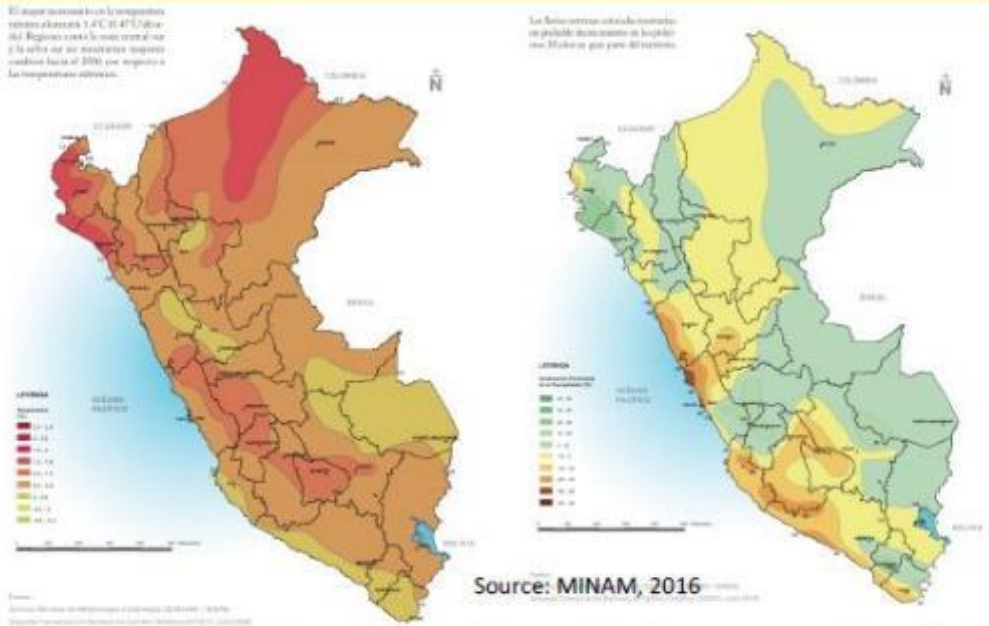
AMBERO Consulting Gesellschaft mbH

FEBA Friends of Ecosystem-based Adaptation

Content

- Peru is responding to climate change with EbA
- From piloting to integration into policy planning at national level
- The urgent need to respond with EbA to climate change in Viet Nam
- From piloting to integration into national policies
- From national policy planning to large scale implementation
- Key questions to be discussed
- Designing an EbA implementation strategy

Peru's climate risk and vulnerability



Source: MINAM, 2016

Climate risks	Amazon region	Coastal region	Andean region
Glacier retreat	●	●	●
Increase of surface temperature	●	●	
Change in precipitation patterns	●	●	●
Sea level rise		●	
Extreme cold			●

- High exposure to climatic extremes e.g. ENSO (El Niño/La Niña)
- Climate sensitive economy e.g. agriculture and fishing
- Poverty levels and inequality e.g. rural population
- Fragile ecosystems e.g. low coastal areas, arid and semi-arid zones
- Institutionality e.g. fragmented institutional setting

How is Peru responding with EbA?

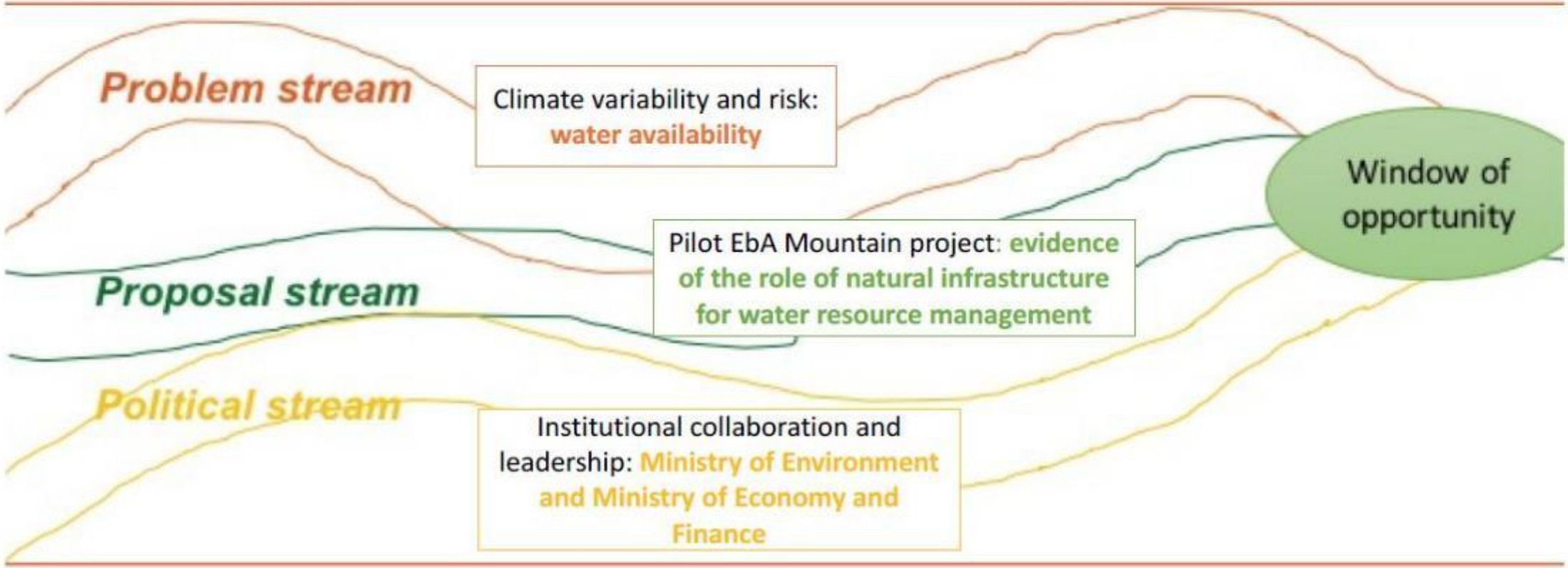
	2002 - 2008	2009 - 2014	2015 – towards 2018
Climate change policy	Indirect support for climate risk management.	Greater support to climate risk management through development planning.	• National Determined Contributions (NDC) considers EbA actions. • Law on Climate Change (2018) considers EbA.
Planning instruments	The National Climate Change Strategy	Law on Mechanisms for Compensation for Ecosystem Services.	**Natural infrastructure is integrated explicitly as a criteria for public investment projects.**
Regional policies	Regional governments initiate planning for adaptation to CC.	16 Regional Governments have Regional Climate Change Strategies.	18 Regional Governments have Regional Climate Change Strategies – implementation of EbA projects.
EbA projects		EbA Mountain	EbA Amazonia EbA Coasts EbA Lomas Recovery of degraded ecosystems Mainstreaming EbA – Strengthening EbA in planning and decision-making processes

Enabling factors for mainstreaming EbA and the way forward

Institutional framework	Institutional leadership at the national and regional scale, but… Partnerships through national dialogues and mechanisms for inter-sectoral collaboration, but…
Policy framework	Established planning instruments and policy framework for climate change and nature conservation, but…
Awareness and capacity	Capacity building program on climate change is institutionalized, and EbA training is tailored to local public officials, but…
Resource allocation	Promotion of innovative funding mechanisms (e.g., integrate criteria for natural infrastructure in public investment projects) and synergies with existing ones (e.g., Law on Mechanisms for Compensation for Ecosystem Services).

Limited availability of accurate and downscaled information on climate change and vulnerability of ecosystem services

How the window of opportunities opened up



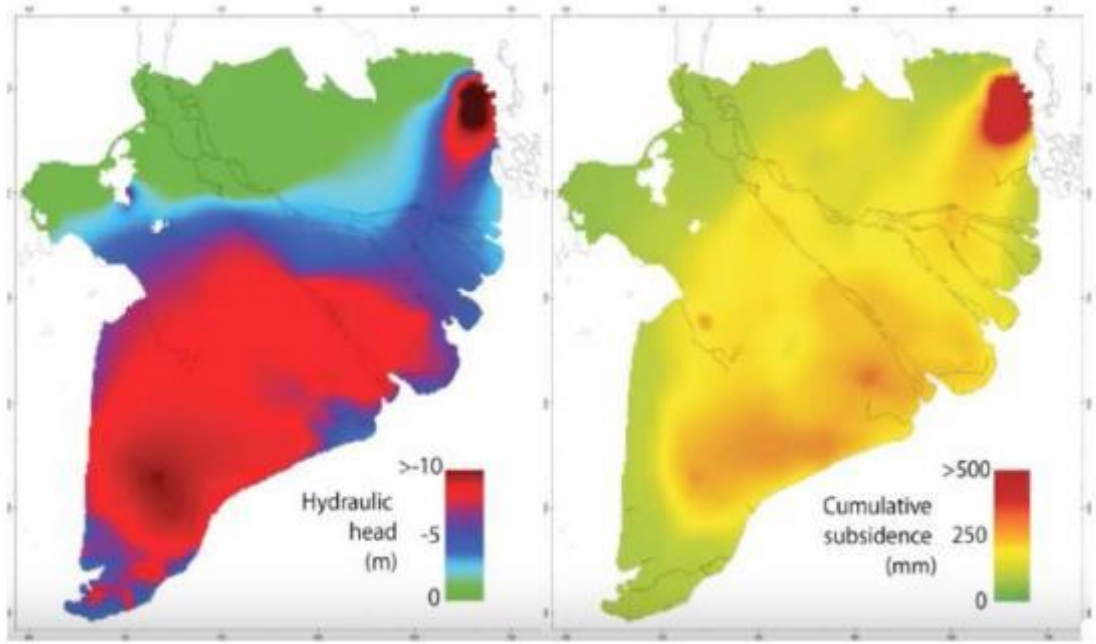
Natural infrastructure as integral part in public planning and financing

✓ Regulatory and planning framework
✓ Political will and leadership
? Resources allocation – The budget allocation process is a central ENTRY POINT for EbA mainstreaming.

Viet Nam's Mekong Delta is subsiding

- land is subsiding due to groundwater extraction
- rate of subsidence has reached several cm a year
- global sea-level rise of a few mm a year
- Mekong delta only 1-2m above sea level
- salinisation, higher floods risks and coastal erosion increasingly threaten the delta

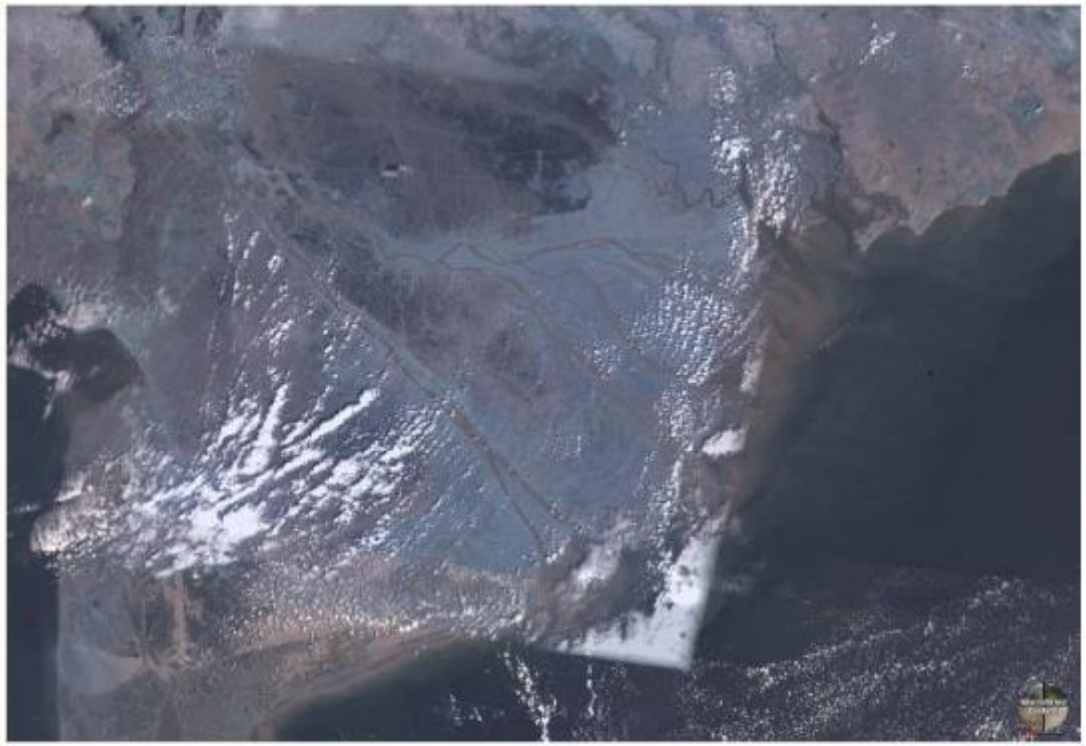
Unless action is taken, this fertile area – which is home to 20 million people and which produces food for almost 200 million others – faces a major catastrophe.



Source: three-dimensional groundwater model, Rise and Fall project, Utrecht University, 2015

Climate Change is threatening Mekong Delta

- most threatened wetland/watershed by climate change
- most gravely threatened by sea level rise *(WB 2006)*
- 1m sea level rise expected by end of 21st century
- average elevation less than 2m above sea level
- significant decrease in rainfall in first part of the annual rainy season, more rain towards the end
- Mekong's annual flood peak has fallen by a third since 2000
- *waters from upstream carry less silt to replenish the Delta floodplain*
- *volume of fresh water is falling while the sea level rises*



High vulnerabilty

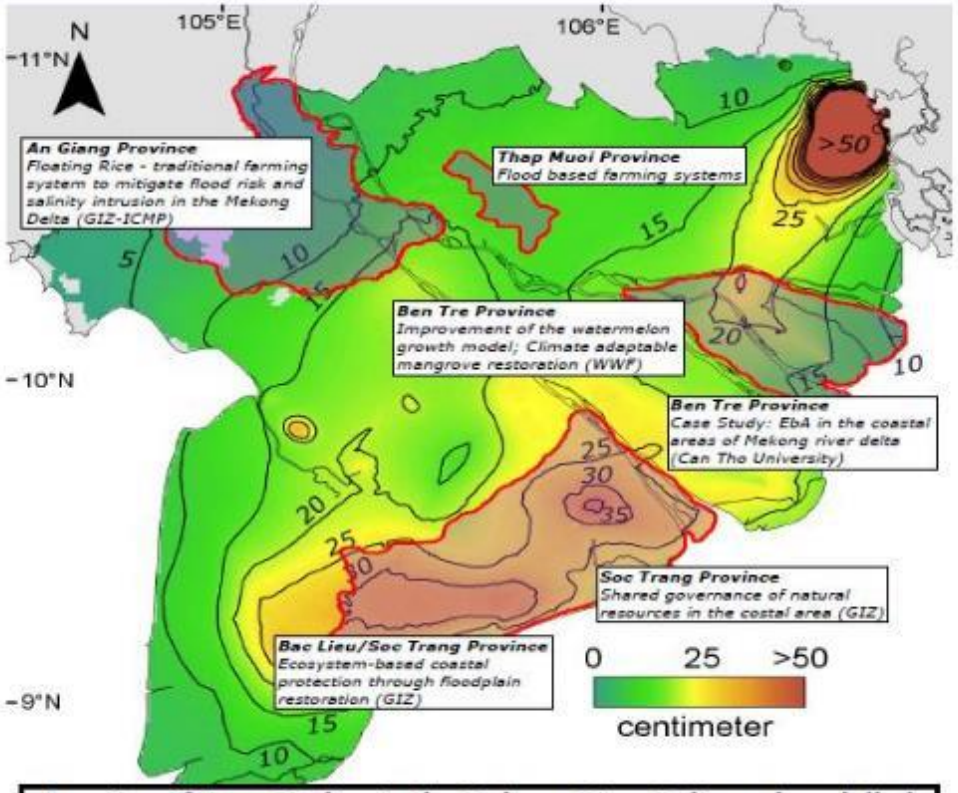
- grey infrastructure is part of the problem
- highly engineered environment
- unstoppable damming of the upper reaches

Source: International Rivers, 2017

The need to apply EbA at large scale

- manifold ecosystems and rich biodiversity provide important potential to prevent people and biodiversity
- slow down the land subsidence, regulate water, specifically groundwater resources, conserve soil fertility, prevent from salt infiltration, flooding and water erosion or destruction of marine ecosystems

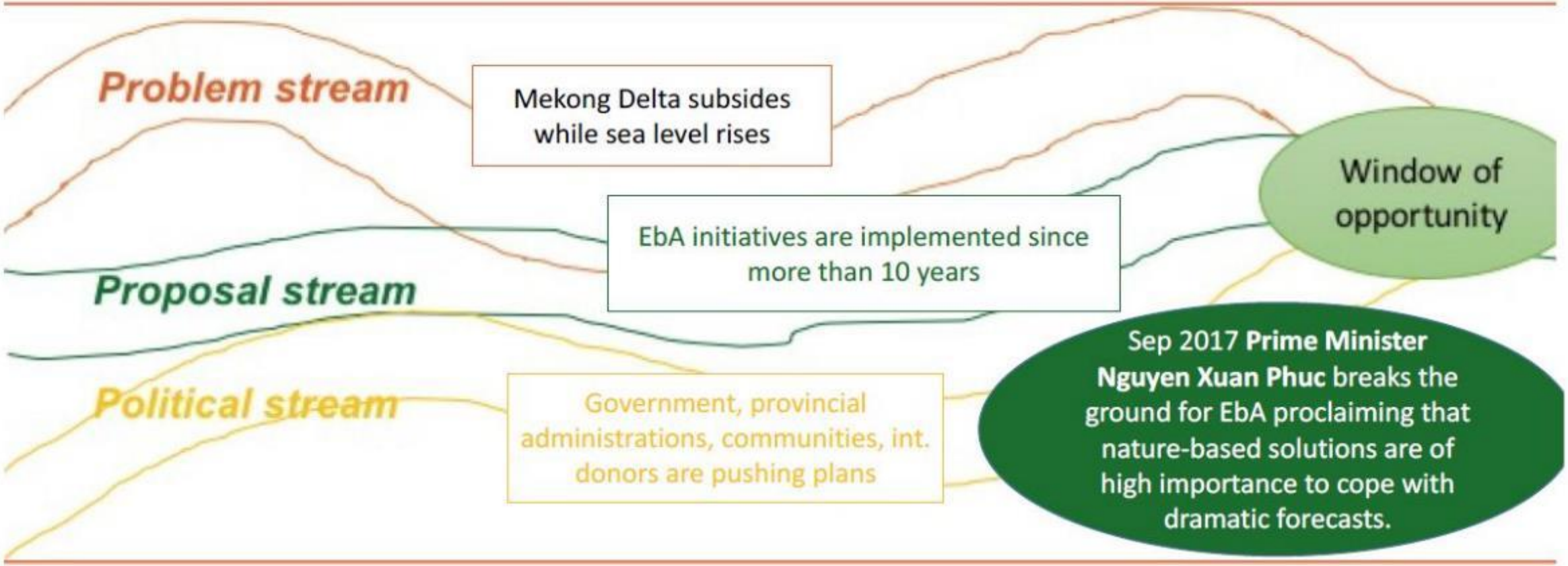
An action plan for the 13 provinces located in Viet Nam's Mekong River Delta is what is needed most.



Location of Case Studies in the Mekong River Delta and modelled cumulated Subsidence (cm) caused by water extraction since 1991 (Map Source: P.S.J. Minderhoud et al., 2017)

Source: AMBERO GmbH, 2018

How the window of opportunity opened up



Enabling factors for mainstreaming EbA and the way forward

Data availability	Vulnerabilities and risks of Viet Nam's socio-ecological systems are very well assessed, base for decision-making is there, but…
Policy framework	National climate change strategies and policies consider EbA, institutional framework is developed, mainstreaming process is progressing impressively, but…
Awareness and capacity	Suitable adaptation options are identified and tested at small-scales, operational frameworks for EbA implementation and mainstreaming are developed, but…

The tremendous Mekong Delta challenge and the problems coming along with it remain unsolved. Problem is to sort out best ideas, make appropriate decisions, and find resources to implement them in a timely, coherent way. urgently missing is link to landscape approaches, land use and territorial as well as large scale infrastructure planning and decision-making.

Urgently needed: **comprehensive mitigation and adaptation plan for the 13 delta provinces first and for Viet Nam as a whole second, anything less would be a terrible result.**

Key questions for discussion

Main questions remains: how to broad and up-scale EbA solutions and integrate them into policy planning and practical implementation processes at national and provincial level to save Viet Nam's Mekong Delta?

Why is Peru progressing and why is Viet Nam stucking?

What has been driving Peru? And what is hindering Viet Nam?

How could the Peruvian example be transferred to Viet Nam?

What can Viet Nam learn from Peru?

How can decision-makers be convinced?

Questions you have?

Session 4: Expert Dialogues

FEBA
Friends of Ecosystem-based Adaptation

Expert Dialogue - Group 4:
Providing and communicating robust evidence for EbA upscaling within policies and practice

Meeting room BM13037 (3rd floor)

Facilitation and inputs from: Nathalie Seddon (Oxford University and IIED); Cordula Epple (UNEP-WCMC) & Nigel Crawhall (UNESCO).

Target group: Researchers, NGOs working with local knowledge holders, governments, practitioners and funders

Objective: This session explores how applied research, combined with local and indigenous knowledge, and the interaction with decision makers can support the upscaling of EbA into policies (vertical upscaling) and practice (horizontal upscaling).

UN environment WCMC

UN Environment
World Conservation Monitoring Centre

STRENGTHENING SCIENCE-POLICY LINKAGES FOR DECISION MAKING

Cordula Epple

7 MAY 2018 - EBA KNOWLEDGE DAY - EXPERT DIALOGUE GROUP 4

- Challenges and opportunities for work at the Science-Policy Interface
- Changing perceptions on the role of scientists in informing policy

➔ Lessons for EbA?

- Drawing on: IPBES and UNEA processes, projects: CONNECT, Strengthening evidence on EbA effectiveness

Policies are not always supported by sound evidence

Many decisions based on anecdotal information rather than best available knowledge (UNEP/IPBES/2/INF/1)

Reasons for the disconnect lie at various points in the chain between data, information, knowledge, decisions - and ultimately actions.

Source: CONNECT Project 2016

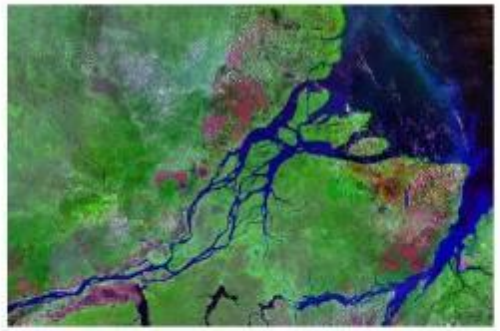
What kind of information do decision-makers need?

- *Correct…*
- **Relevant**: e.g. focus on problems or options for action / their implications? Choice of scenarios, time horizons, etc.
- **Credible**: e.g. transparency about sources, methods and assumptions, open to review
- **Legitimate**: e.g. involvement of stakeholders in defining questions, identifying sources, etc.; adequate representation of different perspectives

Source: Galio 2011

Challenges for those who generate/look for knowledge (1)

- **Timescales**: short turnaround times in decision-making
- **Geographical scales:** matching data resolution to political boundaries
- **Integrating different forms of knowledge and 'language'**: across scientific disciplines, scientific and traditional knowledge, etc.



Sources: Kmusser 2008, NASA 1990, Jorge.kike.medina 2009

Challenges for those who generate/look for knowledge (2)

- **Perception of roles**: scientists as independent 'seekers/guardians of truth' vs. 'honest brokers of knowledge', dissemination vs. exchange of knowledge (Koetz et al. 2011)
- **Agreement on questions**: contexts often characterized by complexity, uncertainty and disagreement over values and prioritization of goals (UNEP/IPBES/2/INF/1, UN Environment 2017)

Factors that may limit uptake of information

- **Availability** (data gaps, especially at action-relevant scales)
- **Accessibility** (distribution channels, access restrictions, language, interpretation/synthesis)
- **Willingness to use** (trust, perceived relevance)
- **Capability to use** (understanding, scope/mandate for action)

Source: CONNECT Project Theory of Change

MAINSTREAMING BIODIVERSITY INFORMATION INTO THE HEART OF GOVERNMENT DECISION MAKING – CONNECT PROJECT

COMPONENT 1

DEMAND

Identify decision points or processes across government sectors where biodiversity information can be influential, and devise response strategies

COMPONENT 2

SUPPLY

Enable technical stakeholders to more effectively acquire, share and communicate relevant data for current and future information needs

COMPONENT 3

SUSTAIN

Embed/integrate necessary information into national development systems

CONNECT

For discussion

- How to help EbA decision-makers (at the appropriate level) to access and use credible, relevant and legitimate information? (Demand/supply-side capacity, limiting factors)

- What types of information are most urgently needed? (Climate projections, vulnerabilities, comparison of options…)

Information gaps identified in EbA case studies

Evidence of effectiveness in 13 EbA sites.

Four aspects: effectiveness for human societies, for ecosystems, financial/economic, and policy and institutional issues

Availability of information varies across the sites. Observed knowledge gaps include:

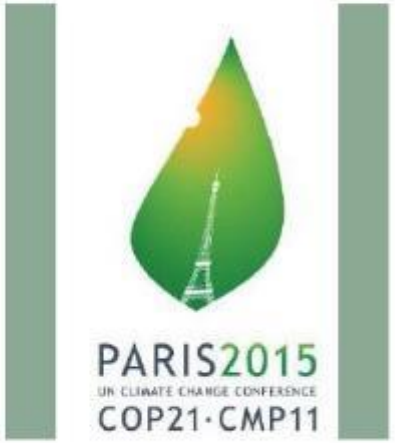
- Quantitative data on social, environmental and economic co-benefits and their value
- Ecological boundaries of EbA effectiveness (e.g. minimum ecosystem size, thresholds of resilience)
- Better understanding of trade-offs between different stakeholder groups, ecosystem services, across different timescales, etc.

Communicating Indigenous Knowledge in Adaptation

Nigel Crawhall, Chief of Section,
Small Islands and Indigenous Knowledge
UNESCO

3rd EbA Knowledge Day – Session 4: Expert Dialogues

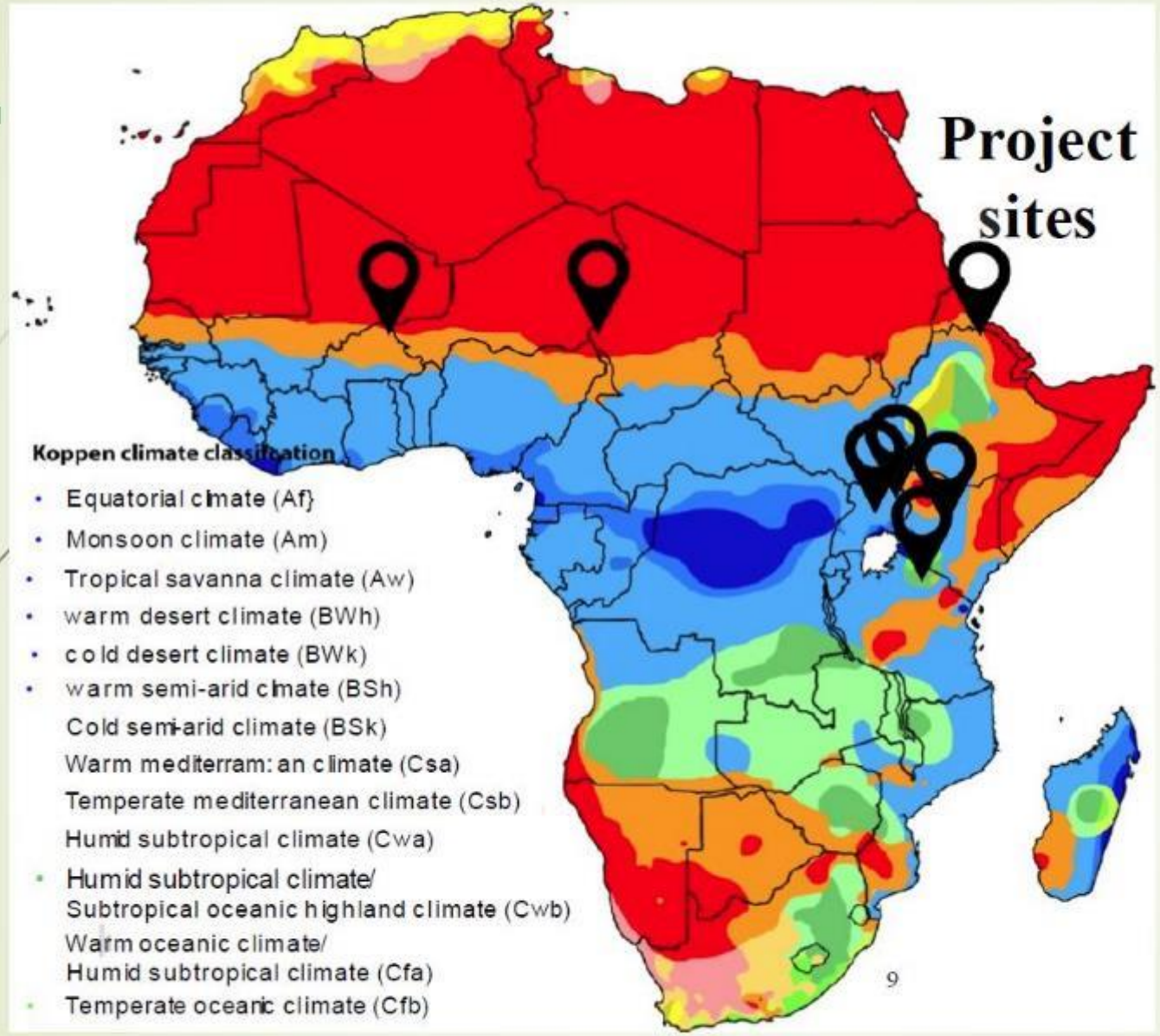
Paris Agreement - Article 7.5



- Parties acknowledge that adaptation action should … be based on and guided by the best available science and, as appropriate, **traditional knowledge, knowledge of indigenous peoples and local knowledge systems,** with a view to integrating adaptation into relevant socioeconomic and environmental policies and actions, where appropriate.

Best Possible Knowledge – Dialogue of Human Knowledge

- *Adaptation is a complex interaction of climate, biodiversity and human behavior – a single discipline or knowledge system cannot cover the complexity of processes – we need systems thinking;*
- *Most indigenous knowledge of the environment, ecosystems, weather and climate is held in undocumented, oral systems managed by traditional indigenous institutions;*
- *Mobilising indigenous and local knowledge requires a process of knowledge interface with natural and social sciences and a communication strategy to impact on policy-making;*
- *ILK + Sciences → National Adaptation Planning*



United Nations Educational, Scientific and Cultural Organization

LiNKS Local and Indigenous Knowledge Systems

SIDA funded:
Transdisciplinary Research on Climate Change Adaptation for Vulnerable Indigenous Communities in Sub-Saharan Africa

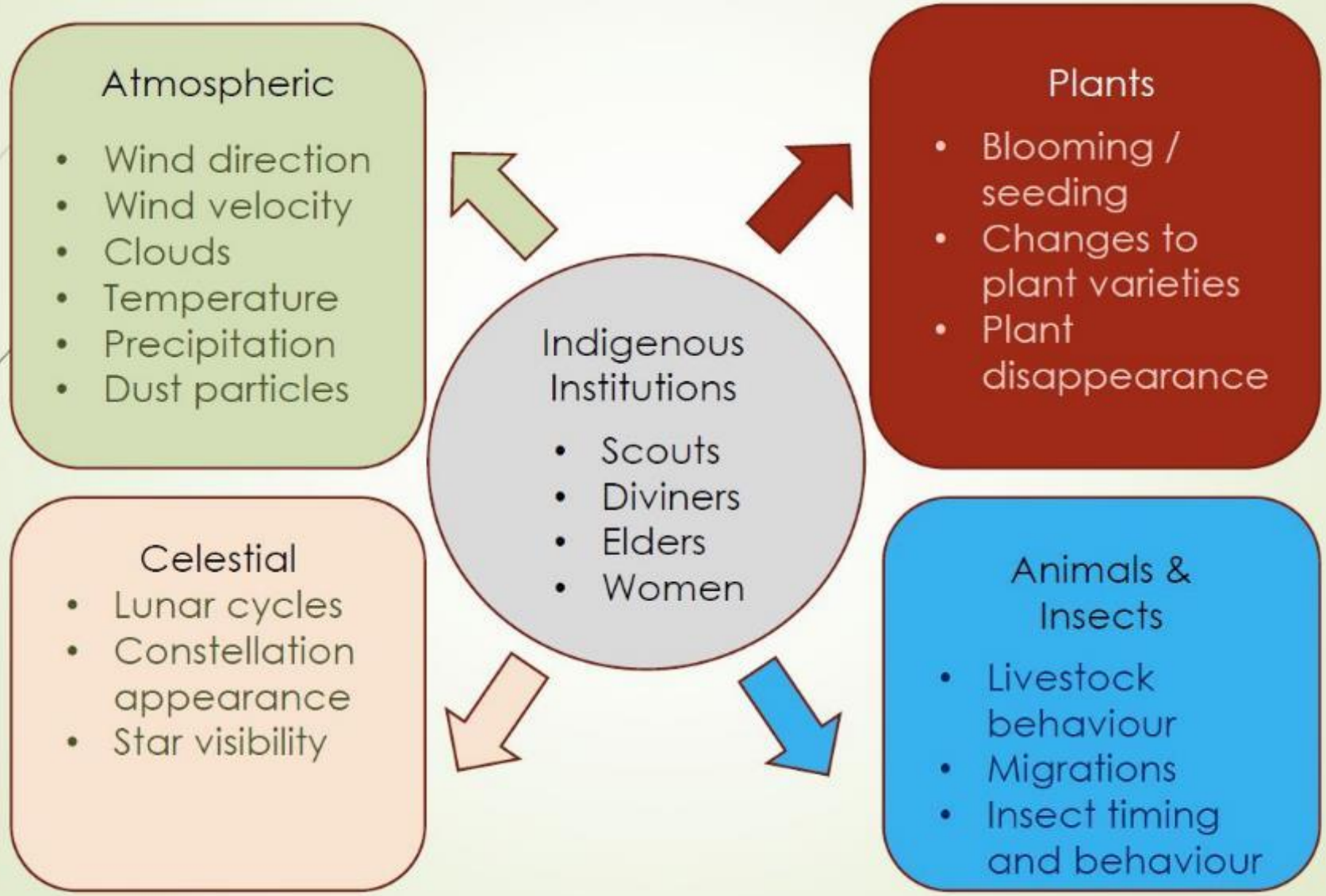
13 CLIMATE ACTION

UNESCO LINKS
Local & Indigenous Knowledge Systems, Natural Sciences Sector

- Research with indigenous pastoralists on their knowledge, observations and decision-making regarding weather, climate and adaptation;
- Facilitating pastoralist dialogues with national and international meteorologists and other scientists;
- Evidence based approach to ILK;
- Establishing knowledge synergies and co-production to build NAP capacity

Burkina Faso, Chad, Ethiopia, Uganda, Tanzania and Kenya;

Indigenous observation of seasonal indicators for forecasting climate and weather



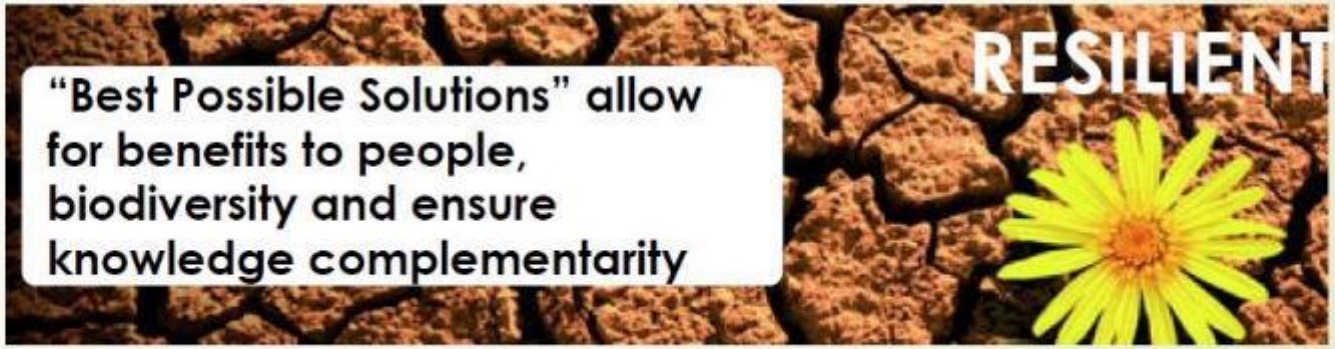
WHY?

Multiple benefits associated with the integration of ITK / ILK in National Adaptation Plans

WHY integrate ITK in NAPs?

1

2



3

HOW can ILK be integrated in NAPs?

HOW?

Knowledge dialogues at the local, national and regional level to identify knowledge synergies and complementarity

Knowledge

1

LOCAL: Research by local and indigenous African experts with pastoralists. Dialogue with local authorities on adaptation opportunities & weather / climate observation.

Local data

2

NATIONAL: National dialogues on complementarity of knowledge and appropriate delivery of climate services. Recognition of value of ILK in forecasting and adaptation.

National platforms

3

REGIONAL: Work with Regional Climate Agencies to understand role of ILK and decision-making

Lessons & Models

4

INTERNATIONAL: International platform on knowledge and informing NAP learning

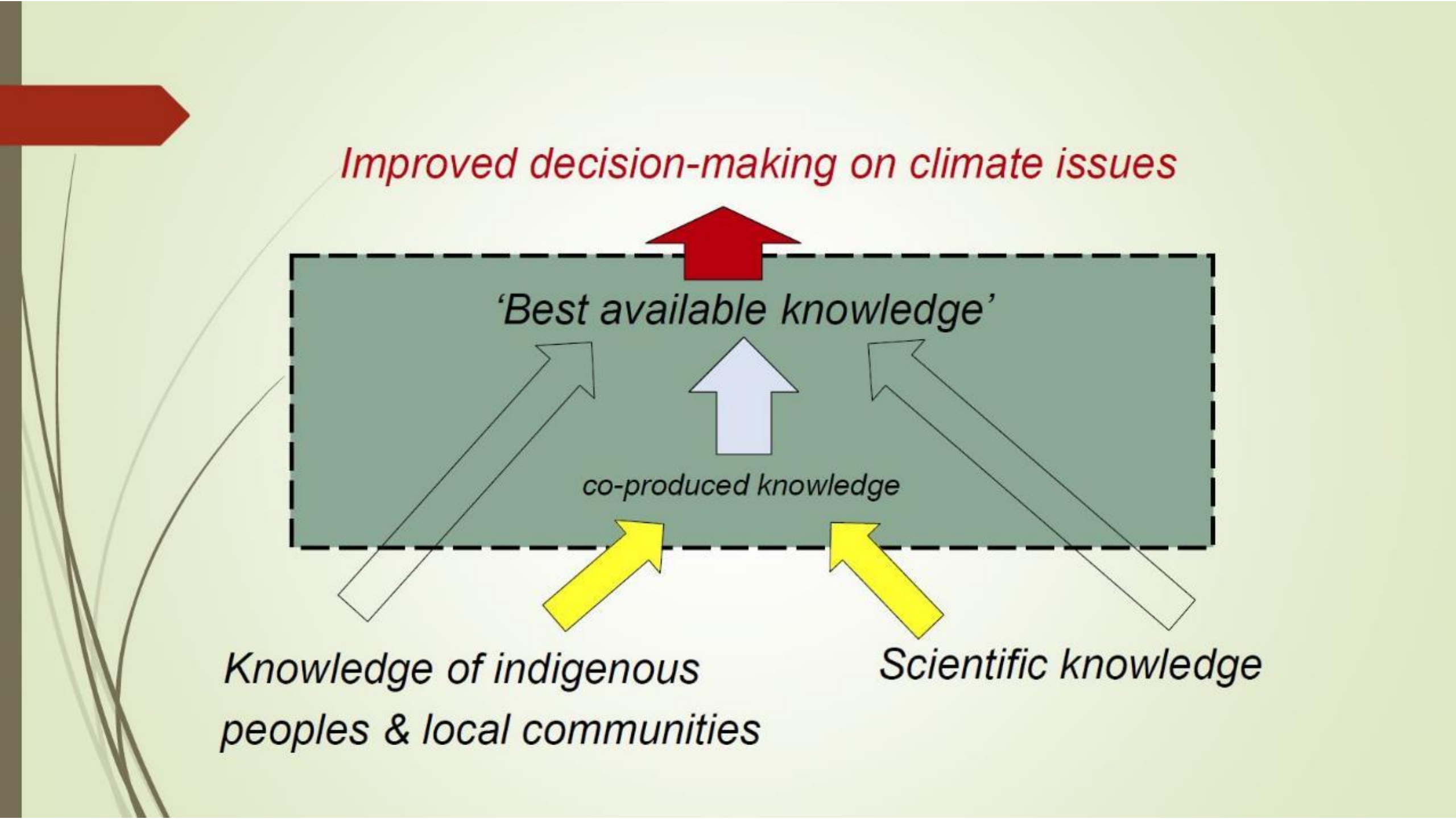
Key Considerations

ITK Systems thinking

- ITK / ILK systems are complex, including biological, ecosystemic, atmospheric and social variables within a large-landscape approach;
- Forecasting often involves weighing different indicators: plant, animal and insect behaviour + wind, dust, humidity and other atmospheric indicators
- Transdisciplinary approach is required to understand and engage with ITK / ILK → NAPs are by character transdisciplinary

Meteorology constraints

- Meteorological models can assist with different time frames of forecasting;
- African forecasting currently has relatively low correlational reliability;
- Meteorology is limited to one discipline, thus ecosystems knowledge is absent;
- The needs of rural communities require specific time and spatial scales of meteorological precision and accuracy, which may not yet be available.
- Farmers and pastoralists have different forecasting requirements.


Improved decision-making on climate issues
'Best available knowledge'
co-produced knowledge
Knowledge of indigenous peoples & local communities
Scientific knowledge

Knowledge Dialogue and Decision-making

- Achieving a shared knowledge approach between scientists and indigenous peoples takes time;
- It delivers a synthesized message to policy-makers which is based on livelihood requirements, community consent, best possible knowledge and transdisciplinary concordance;
- Where there are conflicts of interests, a knowledge co-production platform helps build a shared vision for NAPs
- Robust institutions → robust knowledge management;
- Indigenous institutions and science institutions must have a supportive environment to deliver policy options, data and appropriate knowledge;
- NAPs eventually need **an institutional platform** that facilitates knowledge exchanges, learning and responsiveness – connecting the local with the national, national with regional needs.
- NAPs need to be **intersectoral**, **multi-stakeholder**, with **diverse knowledge systems** including **ILK**

"If you want to understand what is ***happening in the lowlands*** *you have to* ***go to the highlands*** *to have a better view of what is happening down there.*
The same thing happens if you want to understand weather: you need to ***climb on the shoulders of elders*** *to understand it"*

Afar woman