

Event Documentation

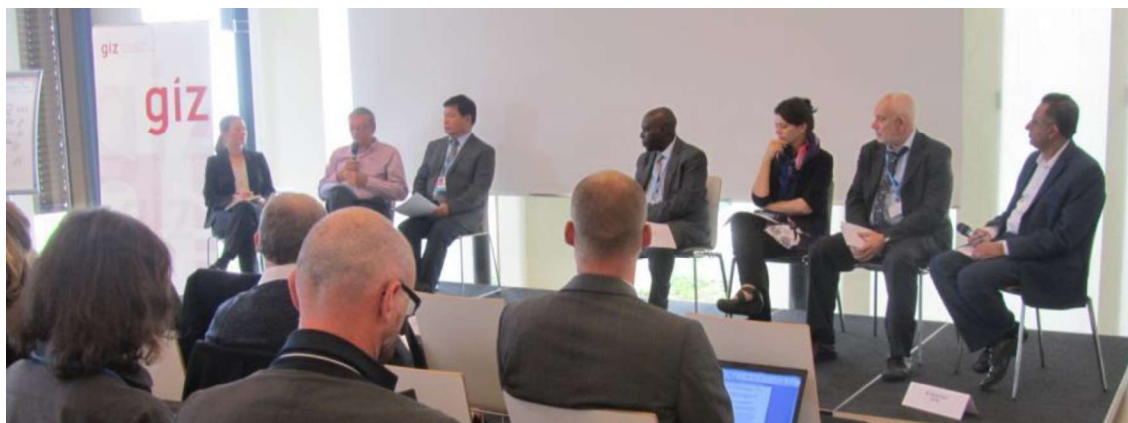
EbA Knowledge Day during UNFCCC SBSTA 46 (11 May 2017) - fostering exchange and sharing knowledge on strengthening EbA into policy frameworks and practical implementation

In the framework of the 46th meeting of the subsidiary bodies of UNFCCC, GIZ, IUCN and the Friends of EbA Network (FEBA) invited around 45 delegates and representatives from governments, international organizations, NGOs and research to share knowledge and practical experiences for strengthening EbA into policy frameworks, at national and subnational level based on practical examples.

After a short welcoming by **Mathias Bertram (GIZ)**, **Lea Herberg (BMUB, Division International Climate Finance & International Climate Initiative)** opened the event with a brief presentation on key aspects of Ecosystem-based Adaption and how it increased significance in the context of the UNFCCC and country adaptation strategies. She provided a snapshot of IKI's portfolio of adaptation and EbA with about 22% of funding for adaptation, including 33 EbA projects amounting to 130 million Euro. Lea Herberg also welcomed the recent development of the *FEBA technical paper on EbA qualification criteria and quality standards* led by GIZ and IUCN as well as the *question-based based guidance to assess the effectiveness of EbA* led by IIED.



Ali Raza Rizvi (IUCN) moderated a panel session with distinguished guests including Lea Herberg (BMUB), Mandy Barnett (South African National Biodiversity Institute), Paul Mafabi (Ministry of Water and Environment, Uganda), Albert Magalang (Department of Environment and Natural Resources, Philippines), Dr Mike Jones (Stockholm Resilience Centre), and Alexandre Meybeck (FAO).



Lea Herberg (BMUB, Germany) explained in more detail the prominent role of EbA in the context of the International Climate Initiative (IKI) as one of the main funders of EbA projects. She put forward that while EbA has been integrated into positions, policies, official texts, etc. at many levels, it can always go further especially by upscaling lessons learnt from pilot initiatives and strengthening EbA into specific sectors. She identified **four main challenges**

that still remain for facing the uptake and implementation of EbA: i) a lack of **conceptual clarity** on EbA, ii) a need for greater **capacities** to mainstream EbA, iii) gaps in understanding how to **monitor and evaluate EbA**, and iv) a need to **improve communications** surrounding EbA, especially regarding its holistic and no-regrets nature.

Mandy Barnett (SANBI, South Africa) shared experiences on how SANBI has strengthened the role of ecosystems within national development and adaptation planning (NAP) in South Africa. She described the **importance of leadership in complex governance processes** and how SANBI's position, as co-leader with the South African government on an EbA programme of work, has presented a unique advantage. In South Africa (**ecosystem-based**) **adaptation competes with huge social and economic priorities**, but the policy environment enables EbA generally. SANBI has identified and summarized **challenges at biome level**, which created an **important basis to develop a national EbA strategy**. Mandy Barnett further described how SANBI has helped to build up a strong **South African community of practice** for EbA as a platform for learning and exchange. Additionally, SANBI recently supported the creation of a **guidance on EbA standards and safeguards** for policymakers and project leaders. She also stressed that international policies, funding mechanisms and guidelines should be strongly linked with national realities and needs.



Mike Jones (Swedish Biodiversity Centre) gave an introduction to lessons learned about the application of resilience thinking to **EbA with forest landscape restoration (FLR) as an example**. He proposed that a **social-ecological resilience assessment of ecosystems** will strengthen EbA. He said there are two major challenges facing application of resilience thinking to EbA: (1) promoting **systems thinking** as an encompassing frame for understanding ecosystem complexity as opposed to **linear thinking** (i.e. simple cause and effect); and (2) **changing governance institutions** to increase flexibility of ecosystem management approaches such as EbA and FLR. Governments can reform policy and law so that they increase local capacity for innovation and adaptation. He added that **industrial age governance systems are not appropriate for the current age of environmental and social turbulence**.



Paul Mafabi (MoE, Uganda) gave an overview of EbA-driven successes in the Mount Elgon region of Uganda, as well as how Uganda has integrated EbA into its Nationally Determined Contribution (NDC), national climate change policy and current national adaptation planning process (NAP). EbA, as any approach needs to **centrally address the improvement of livelihoods**, especially in a country like Uganda with a high population density. He stressed the **importance of local level governments to understand the benefits of EbA** (e.g. food, water, risk reduction) for local communities to further integrate them into their own plans. Also, **stakeholder platforms**, as in Mount Elgon, have proven very important for **improving EbA planning** as well as managing peoples' expectations for EbA interventions. He also mentioned that project-based approaches can only be a starting point for replication and upscaling of EbA.



Albert Magalang (DENR, Philippines) summarized what the Philippines is in the process of systematically integrating EbA into sector and national strategies through the **landscape approach**. Part of this process was the issuing of an explicit memorandum by DENR to all its Central and Regional officials to **operationalize the Paris Agreement with EbA as a key element**. Albert Magalang acknowledged that GIZ has been a partner in the Philippines for a very long time, and that the Philippines is a partner country under GIZ's EbA Mainstreaming project, funded by IKI. He also described the **"sustainable integrated area development" (SIAD) as a ridge to reef approach and entry point for EbA** in the Philippine regional planning. SIAD is a government strategy that addresses cross-sectoral



challenges in a specific geographical area context (and so is area focused). He stressed the usefulness of following the EbA cycle approach and using an **ecosystem and climate lens** for screening policy and governance frameworks. The goal is to **break the silos** within that area by **fostering multi-sector and multi-stakeholder planning and convergence**.

Alexandre Meybeck (FAO, Italy) reflected that in fact **most sectors are far from applying the “EbA lens”**. Sectors that heavily depend on biodiversity and ecosystem services (e.g. fisheries and forestry) would be rather advanced in this perception, while rather traditional sectors that use natural resources in a very intensive manner (e.g. agriculture and livestock) would gradually treat crops and grasslands as more complex ecosystems. There is a **need to bring these sectors together**. He added that EbA as an approach (i.e. the strong linkage between ecosystems and societies/economies) can also be extremely helpful in understanding what has to be improved in specific sectors and systems. An emerging idea is ecosystem-based production systems. There is **still a lot to do on the science of measuring EbA’s positive impact on agriculture** – we have models, but they are not as complex as reality. Thanks to previous and ongoing EbA initiatives, however, we are **observing the real impacts of ecosystems on the ground**. He also noted that the **NAP process** constitutes a **very good opportunity to bring together around the concept of ecosystem-based adaptation the agriculture sectors** (agriculture, forestry, fisheries) and all actors concerned by ecosystems and natural resources management.



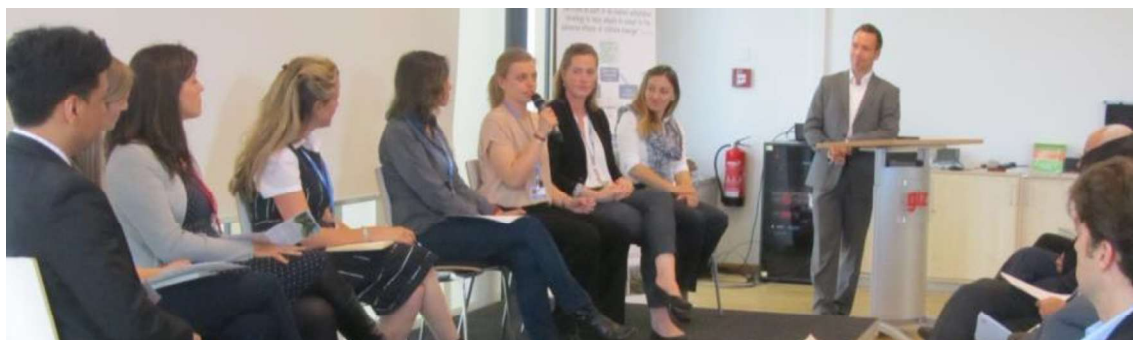
Ali Raza Rizvi (IUCN) opened the floor for questions and discussion. Questions covered topics including how communities with existing governance structures, adapted to the ecosystems where they live, are built into EbA approaches and how those communities are given the opportunity and platform to tell their stories. Panelists responded that of course, existing **local context is critically important**, that in governments they have learned a lot on the strengths and weaknesses of top-down approaches, and that we often underestimate what local stakeholders and communities understand about climate change and their local environments.

Other questions focused on how governments can approach EbA **monitoring and evaluation over the scale of decades**, and whether the failing of some EbA interventions to meet expectations (perhaps due to short project periods, linear thinking, etc.) presents a risk to the EbA concept at large. Points were made that the **challenges of M&E are similar for all adaptation projects**. BMUB conducts an evaluation of all IKI projects every few years, and is now setting up a new evaluation, though it is not specific to adaptation projects. Additionally, regarding M&E, it is important to consider *what* we are managing towards – a previous, current, or a different target?

Mathias Bertram (GIZ) introduced participants into a **marketplace session** with the objective to showcase concrete examples and approaches for strengthening EbA and related frameworks into sector planning and implementation. 8 presenters from international organizations gave brief introductions into the poster topics and entered into a dialogue with participants during the market place. Presenters and poster topics covered the following:

1. Elmedina Krilasevic (IUCN) - ***The intersection between Forest Landscape Restoration, the Bonn Challenge, and EbA***
2. Katherine Blackwood (IUCN) - ***Friends of EbA (FEBA) technical paper proposing EbA qualification criteria and quality standards***
3. Sylvia Wicander (UN Environment WCMC) – ***Improving access to tools for ecosystem-based adaptation***
4. Angela Andrade (CI) - ***Adaptation to Climate Change Impacts in Water Regulation and Supply for the Area Chingaza-Sumapaz-Guerrero***
5. Nathalie Seddon (IIED) – ***Ecosystem-based Adaptation and the Paris Agreement, an analysis of NDCs and how they address EbA***
6. Neomi Lorentz (GIZ) – ***Biodiversity Conservation and Climate Change – Aichi Poster tool for countries to communicate their actions towards ecosystem restoration/ selection of EbA relevant publications by the German Government (e.g. Committed to Biodiversity)***
7. Alexandra Köngeter (GIZ) – ***Mainstreaming EbA into development planning – a training course for decision makers, planners and practitioners***
8. Paolo Domondon (Rare) – ***Climate Change needs behavior change – what is the one variable that is central and essential to meaningful climate action? – people.***

(see poster documentation in annex I)



During the marketplace participants circulated among posters, entered into a discussion on the possibilities and challenges of EbA and learned more about the initiatives and outputs of other EbA and adaptation practitioners.





Participants gathered for **concluding remarks**, delivered by Mathias Bertram and Ali Raza Rizvi, and to provide their own major takeaways from the event. Among other feedback, **Felix Diesner (BMUB)** pointed out the importance of practitioners **not creating an “EbA silo”**, and reinforced the day’s discussions on how EbA is a means, and not an end.

Fabrice Renaud (UN University, Institute for Environmental and Human Security) summarized discussions on the many **linkages between Eco-DRR and EbA**.

Elmedina Krilasevic (IUCN) likewise pointed out the encouraging discourses on how **Forest Landscape Restoration and EbA can reinforce one another**. In response, Ali Raza Rizvi suggested that creating a **FEBA Working Group on Adaptation and Mitigation** would be a good way forward for these discussions.

Paul Mafabi (MoE, Uganda) announced that Uganda’s Ministry of Environment had just become the newest member of FEBA to continue the discussion and exchange on EbA mainstreaming with a wider group of institutions and individuals.

There was agreement among participants to continue with similar exchange formats in **upcoming events**, including the **bi-annual FEBA meeting** (12 May 2017), the **UNFCCC NWP side event on ecosystems and EbA** (15 May 2017), the **11th International Conference on Community-Based Adaptation** organized by IIED (26-29 June 2017), and the **2nd International EbA Community of Practice Workshop** organized by GIZ (21-27 August 2017) as well as the **Adaptation Futures 2018** (11-14 June 2018) in Cape Town.

It was recommended by participants that another **EbA Knowledge Day** shall be organized during **UNFCCC CoP 23** in Bonn in November 2017.

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Annex I – EbA Knowledge Day - Market place poster documentation

Elmedina Krilasevic (IUCN) - *The intersection between Forest Landscape Restoration, the Bonn Challenge, and EbA*





Making Ecosystem-based Adaptation effective – A framework for defining qualification criteria & quality standards

About the

FEBA partnership

The Friends of EbA (FEBA) group is an informal network of over 30 organisations with an interest in promoting collaboration and knowledge exchange on Ecosystem-based Adaptation through policy and initiative papers and technical documents on EbA. This document is an output of the FEBA Working Group on EbA Standards & Guidelines.

Key messages



Ecosystem-based Adaptation as a nature-based solution links biodiversity and ecosystem conservation approaches with sustainable socio-economic development as part of an overall adaptation strategy. EbA is gaining significant importance in the context of climate change (UNFCCC Paris Agreement, NDC, NAP) & biodiversity conservation policies (CBD Strategic Plan 2011–2020, Aichi targets).



A common understanding among policy makers and practitioners about what qualifies as EbA is relevant, to avoid incorrect re-packaging of "business-as-usual" conservation or development approaches.



This practical assessment framework is based on a review of more than 30 publications; it helps designing, implementing and monitoring effective EbA measures by proposing a clear set of qualification criteria, quality standards and example indicators.



The Friends of EbA network (FEBA) encourages decision makers and practitioners to use this assessment framework as a common set of qualification criteria and standards in the context of implementing EbA within the UNFCCC Paris Agreement and NDC commitments as well as the national adaptation planning processes.

Assessment framework

Part 1

What qualifies as Ecosystem-based Adaptation?

What is EbA?

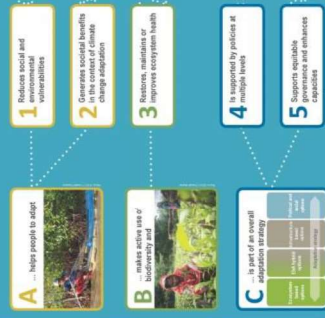
Ecosystem-based adaptation is ...

- 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.

CBD, 2009
(emphasis added)

3 elements 5 qualification criteria

Ecosystem-based Adaptation ...



What makes Ecosystem-based Adaptation effective?

20 Quality standards (only 5 illustrated here as examples)

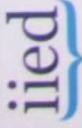

Quality standards	Continuum of EbA quality	Example indicators
1.1 Type of climate information	Very strong Strong Weak Very weak Very poor or not at all	• Extent of information about future climate change used • Quality of climate data sources
2.1 Quantity & quality of societal benefits	Very high High Medium Low Very low	• Quantity of monetary & non-monetary benefits provided (e.g. income, resource access, reduced risks) • Extent of physical asset damage or destruction avoided (e.g. a water, food, fuel) requiring ES (e.g. erosion prevention, wildfire event buffering, climate regulation) as well as supporting and cultural ES (e.g. improved health, well-being, enhanced food security)
3.1 Appropriately scaled management	Very strong Strong Medium Weak Very weak Not implemented	• Size of the area (e.g. a high order management)
4.2 Multi-actor & multi-scale engagement (formal, informal, society, private sector)	Very high High Medium Low Very low	• Level or % of civil society engagement in policy discussions • Level or % of private sector engagement in policy discussions • n or % of people participating in activities
5.3 Status of indigenous and local knowledge and institutions	Respected and incorporated Not respected or incorporated	• n or % of indigenous or local people represented in the governance structure



This project is part of the International Climate Initiative (ICI). The Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB) supports this initiative on the basis of a decision adopted by the German Bundestag.

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Ecosystem-based Adaptation and the Paris Agreement

Nathalie Seddon, Xiaodong Hou-Jones, Tom Pye, Hannah Reid, Dilys Roe, Danielle Mountain and Ali Raza Rizvi

What does the Paris Agreement say about adaptation?

The Agreement aims to enhance "adaptive capacity, strengthening resilience and reducing vulnerability to climate change, with a view to ensuring an adequate adaptation response in the context of the temperature goal." (Article 7.1) It also calls on parties to pursue actions "on the basis of equity, and in the context of sustainable development and efforts to eradicate poverty." (Article 4.1)

What is EbA?

EbA is "the use of biodiversity and ecosystem services ... to help people adapt to the adverse effects of climate change" and includes "sustainable management, conservation and restoration of ecosystems, as part of an overall adaptation strategy that takes into account the multiple social, economic and cultural co-benefits for local communities." (Convention on Biological Diversity 2009, 2010)

Key Messages

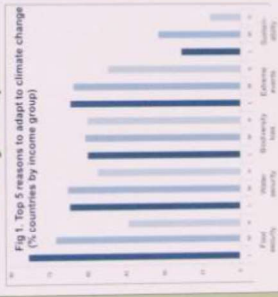
- EbA is central to the adaptation vision of many countries but some of the most biologically diverse and climate-vulnerable nations do not refer to it in their adaptation plans.
- Few countries include measurable targets by which progress towards implementation can be assessed, even fewer acknowledge importance of local communities in designing and implementing adaptation activities.
- Given the potential of EbA to help countries achieve sustainable and equitable development in a warming world, there is an urgent need to set measurable targets and involve communities to that we can move from pledges to action.
- Organizations evaluating EbA effectiveness need to share knowledge widely, thereby providing greater clarity on optimal EbA strategies.
- A key challenge is to build capacity among communities to develop robust adaptation plans, fine-tuned to their economic, social and environmental needs, access suitable levels of adaptation finance and implement EbA at scale.

Policy Pointers

- Governments and non-state actors are recognizing EbA as a potentially highly cost-effective adaptation approach with the capacity to deliver significant co-benefits.
- There is an urgent need to share learning on what makes EbA economically, socially and environmentally effective and to ensure that this information shapes the reframing of NDCs.
- Countries should be encouraged to establish measurable and meaningful EbA targets in national plans, report on progress towards these in their NDCs and raise EbA alongside other key elements of sustainable development.
- Platforms that fund or support mitigation and resilience strategies — e.g. UN-REDD, the Carbon Fund, the Green Climate Fund and bilateral initiatives — should adopt a more integrated approach by highlighting and promoting EbA and its co-benefits for sustainable development.

Why Adapt?


Fig 1. Top 5 reasons to adapt to climate change (% countries by income group)



64% of NDCs with adaptation plans recognize the loss of biodiversity and ecosystem degradation as issues that justify adaptation planning; 52% recognize 'biodiversity' as a distinct sector at risk due to climate change

How Adapt?

Fig 2. Top 5 approaches to adaptation (% countries by income group)



Conservation of one or more ecosystems (particularly forests in catchments and coastal habitats) is most commonly cited current or planned adaptation action, followed by agroforestry

Ecosystems and biodiversity feature prominently as both the context for and method of adaptation

To determine the extent to which signatories have committed to adopting EbA, we reviewed 162 Nationally Determined Contributions (NDCs) submitted to the UNFCCC. We found that of the 137 NDCs with an adaptation component 88% refer to biodiversity and/or ecosystems (strong emphasis by lower-middle income tropical and subtropical nations).

Prominence of EbA

- Most nations (65%) have an ecosystem-orientated vision for adaptation (i.e. propose conservation / restoration, agroforestry etc)
- 24 nations explicitly mention EbA (23 from biodiversity-focused regions)
- EbA is a key component of NDCs from Bangladesh, Costa Rica, El Salvador, Honduras, Kenya, Mexico, Myanmar, Nepal, Seychelles, Vanuatu and Vietnam.
- Some countries (e.g. Peru and the Seychelles) describe current EbA activities but most present EbA as a future priority

Measurable and locally meaningful targets?

Commitment to EbA rarely translates into clear targets. Even where measurable targets are set, it is unclear whether they will be sufficient to meet the adaptation needs of the communities and ecosystems involved.

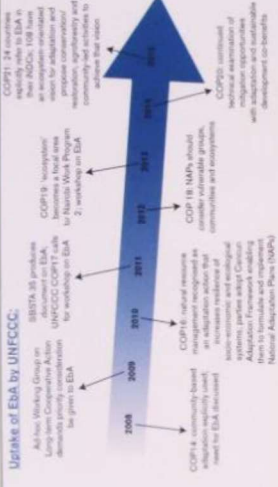
- Measurable targets generally concern conservation / restoration of specific areas of habitat within given timeframes (e.g. Madagascar aims to restore 35,000 ha of primary and mangrove forests by 2020; Bolivia aims to have zero illegal deforestation by 2020)
- More commonly, countries cite broad aims which are difficult to measure (e.g. South Sudan will strive to 'develop breast reserves and management plans to protect watersheds and improve future water availability')

To deliver social resilience and adaptive capacity, especially in low-income countries where livelihoods are often dependent on natural resources, EbA activities should be implemented using participatory, community-led approaches. Yet only 22% of countries describing EbA activities in their NDCs refer to the involvement of local communities.

Paris Agreement marks a major turning point in the struggle to both combat the effects of climate change and maintain biosphere integrity

Uptake of EbA by UNFCCC

Ad hoc Working Group on Ecosystem-based Adaptation (Ad-hoc WG-EbA) was established in 2008 to provide technical assistance to Parties for working on EbA. The WG-EbA has been instrumental in the development of the EbA Pilot Program and the EbA Toolkit.



Key Messages

- EbA is central to the adaptation vision of many countries but some of the most biologically diverse and climate-vulnerable nations do not refer to it in their adaptation plans.
- Few countries include measurable targets by which progress towards implementation can be assessed, even fewer acknowledge importance of local communities in designing and implementing adaptation activities.
- Given the potential of EbA to help countries achieve sustainable and equitable development in a warming world, there is an urgent need to set measurable targets and involve communities to that we can move from pledges to action.
- Organizations evaluating EbA effectiveness need to share knowledge widely, thereby providing greater clarity on optimal EbA strategies.
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- Platforms that fund or support mitigation and resilience strategies — e.g. UN-REDD, the Carbon Fund, the Green Climate Fund and bilateral initiatives — should adopt a more integrated approach by highlighting and promoting EbA and its co-benefits for sustainable development.

Improving access to tools for Ecosystem-based Adaptation (EbA)



Taking stock of EbA-relevant tools and methodologies

Many tools, methodologies and approaches have been developed specifically to assist people in planning and implementing EbA, or have been adapted for use in EbA from other fields, such as broader climate change adaptation, biodiversity conservation, and assessment of ecosystem services / natural capital.

Two projects supported by the German International Climate Initiative (IKI), have developed an 'inventory of EbA-relevant tools and methodologies' in order to: improve access to information about the materials that are currently available; document user experiences of the tools and methodologies; and understand better whether there are important gaps that the projects should aim to address.

The inventory covers tools that provide procedural guidance on different steps in the cycle of planning, implementing and mainstreaming EbA; tools that provide access to data and information; and tools that facilitate the knowledge sharing.

For each tool, the inventory lists information on the objectives, scope, scale and target audience, user requirements and access conditions, as well as links to the relevant websites.

The inventory was circulated among project partners, the EbA community and other adaptation and ecosystem management practitioners to collect their experiences and feedback.

For more information please see: <https://www.iied.org/call-for-feedback-inventory-tools-support-ecosystem-based-adaptation>



Are there enough tools to support EbA planning and implementation?



Ecosystem-based approaches to adaptation: Strengthening the evidence and informing policy

Implemented by IIED, IUCN and UNEP-WCMC, this project aims to show to climate change policy-makers when and why EbA is effective – the conditions under which it works, and the benefits, costs and limitations of working with natural systems compared to options such as hard infrastructural approaches – and promote the better integration of EbA principles into policy and planning. Between July 2015 and September 2019, the project focusses on exploring EbA effectiveness in initiatives carried out in Asia, Africa and Central and South America. Project countries include: Bangladesh, China, Nepal, Burkina Faso, Kenya, Mali, South Africa, Uganda, Chile, Costa Rica, El Salvador and Peru. The project works with local partners to develop country-specific policy recommendations and practical guidance to help people integrate EbA into policy and planning.

www.iied.org/ecosystem-based-approaches-climate-change-adaptation

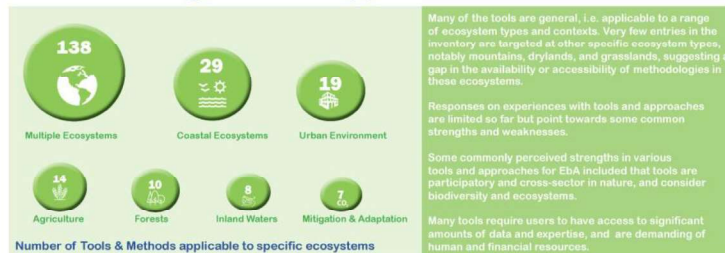
Mainstreaming ecosystem-based adaptation (EbA): Strengthening EbA in planning and decision-making

This project aims to have an impact on planning and decision-making processes, as key actors working in the field of climate change adaptation increasingly use methodological approaches and tried-and-tested instruments for mainstreaming adaptation, with a particular focus on EbA measures. Running from 2015 to 2018, the project provides policy advice and capacity building and supports the development of networks and partnerships. It is collating information from partner countries (including Mexico, Peru, the Philippines, South Africa and Viet Nam), developing instruments and methodologies geared to the mainstreaming and strengthening of EbA, and has established a community of practice involving various exchange formats to facilitate the sharing of knowledge and lessons learned with respect to EbA mainstreaming.

<https://www.giz.de/en/>

These two projects are part of the International Climate Initiative (IKI). The German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB) supports this initiative on the basis of a decision adopted by the German Bundestag.

Are these the right tools to support EbA in different contexts?



Are the tools accessible to the people who need them the most?



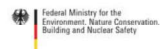
What next? We want your feedback...

More feedback is needed on user needs. How best can we build on the inventory to ensure EbA tools and approaches are more accessible, easily understood and navigable?

- Building up and streamlining the existing inventory?
e.g. adding more tools and more on tool application
- Developing a thematic/targeted toolbox?
e.g. choosing a particular area of the inventory to focus on, and a particular group of target users
- Developing a navigable toolbox?
e.g. a basic offline version which could potentially be developed into an online toolbox in the future

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1. Vulnerability Assessment ZNC 2011-2014

- Started in 2009 – Integrated National Adaptation Program.
- Vulnerability Assessment at National level & IDEAM. ZNC. The Vulnerability of High Mountain Ecosystems has been highlighted.
- Priorities for analysis, mapping and planning, and scenario development, at subnational and local levels. Department of Cundinamarca and Chingaza-Sumapaz Guerrero. ZNC

2. Vulnerability Assessment Bogotá-Cundinamarca Region–2013

Data and Information Used:

- IPCC Models: AR4
- Hydro meteorological data of 261 stations.
- Land Cover/Land Use Maps 1993-2007
- Sensitive biodiversity data (threatened, endemic and migratory species).
- Threaten Factors maps and data: Flooding, landslides, forest fires, etc..
- Demographic data of National Census 2005.

Analysis:

- Eco hydrological Models (Water World/Cointig Nature)
- Spatial Analysis/ GIS (1:100,000)
- Demographic models

Total Cost USD 150 10% of investment.
Time: 5 months

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graph TD
    A[VULNERABILITY AND CLIMATE CHANGE] --> B[EXPOSURE]
    B --> C[SITUATION IN DISTRIBUTION OF RISK AT LOCAL LEVEL]
    C --> D[SENSITIVITY]
    C --> E[SENSITIVITY]
    D --- F[ECONOMY SERVICES]
    E --- G[ECONOMY MANAGEMENT]
    F --> H[ADAPTIVE CAPACITY]
    G --> I[ADAPTATIVE CAPACITY]
    
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3. Adaptation to Climate Change Impacts in Water Regulation and Supply for the Area [Chingaza-Sumapaz-Guerrero.]

- More than 9 million people affected.
- 32% of National GDP.
- 41% of the National Industry.
- High evidence of increased extreme events.
- Progressive increase in T can be up to 2-3°C (2041-2070).

FUTURE PROSPECTIVE:
Strengthen the hydrological buffering and regulation capacity of the upper watershed of Chingaza-Sumapaz-Guerrero that supplies drinking water to the Bogotá metropolitan area and the adjoining rural municipalities.

Categorías	%	Area km²
Aquí Adaptación	100%	100,000.00
Bosque Natural	100%	100,000.00
Urbanización	100%	100,000.00
Carreteras	100%	100,000.00
Otros usos del suelo	100%	100,000.00
Totales	100%	100,000.00

Socio-Ecological Vulnerability Assessment

Methodology:

- IPCC AR4 Model
- Water Response Assessments, based on 283 stations.
- Thematic Maps
- Social and Economic Analyses on main land uses and Agricultural Systems, in 32 municipalities.
- Local Workshops/Perception Surveys/Interviews with key stakeholders.

Conclusions Recommendations:

- The impacts of climate change occur differently across the territory increasing the knowledge contributes in reducing uncertainties and increasing resilience of communities and ecosystems.
- Prevents the implementation of Mal Adaptation measures.
- VA including Climate risks are at the center of Decision Making and Territorial Land Use Planning, at different levels.
- VA is context dependent, focused on main problems for human population.
- Results of VA depend on the objective, methodology and information available.
- For subnational and local, a territorial approach for EVA focused on ecosystem services relevant for the well-being of the population is being updated.
- Contributes to the identification of pilot areas for intervention, and criteria for scaling up in similar landscapes/regions.
- Cost of VA in both states varies between 2% to 6% of total investment.

Neomi Lorentz, Marianne Alker (GIZ) – **Biodiversity Conservation and Climate Change – Aichi Poster tool for countries to communicate their actions towards ecosystem restoration/ selection of EbA relevant publications by the German Government (e.g. Committed to Biodiversity)**



Alexandra Köngeter (GIZ) – **Mainstreaming EbA into development planning – a training course for decision makers, planners and practitioners**



Paolo Domondon (Rare) – **Climate Change needs behavior change – what is the one variable that is central and essential to meaningful climate action? – people.**



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

Rare's Pride approach uses social marketing — 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. Identifying what works on the ground and spreading this local knowledge through community-led campaigns can stimulate the replication of municipal-scale policy innovation for climate resilience and ecosystem protection.

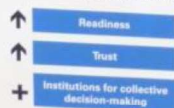


Rare's Theory of Change builds upon decades of social science and has been applied in more than 300 Pride campaigns in over 50 countries over the last thirty years. Studies have shown that Attitude and Interpersonal Communication are the greatest single factors to explain behavior change.



To tackle climate change, Rare's Pride approach uses social marketing methodologies and behavior change insights to:

1. Enable communities to implement adaptation strategies, achieve local development goals while reducing the risk of harm to their homes, families and livelihoods.
2. Build social resilience, help communities adapt to climate change, and connect the dots between community engagement and national policy.
3. Increase a community's ability to organize and respond to climate-related threats.
4. Scale up local solutions to national and regional levels so that climate and biodiversity commitments can be met.



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And how can we know if this works?

We use the adaptive capacity index:
A tool to assess local communities' capacity for adaptive change and therefore their vulnerability to impacts of climate change.

✓ Socio-economic ✓ Socio-institutional ✓ Socio-ecological

Social Capital scores at baseline and after Pride for ARA campaigns in 7 study sites, Valle del Cauca, Colombia (2015-2016)

