



STRATEGIC MAINSTREAMING OF ECOSYSTEM-BASED ADAPTATION (EBA) IN VIETNAM

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ACTION AREA: ————— Adaptation

FOCUS AREA: ————— Delivering

COUNTRY: ————— Vietnam

SECTORS

INVOLVED: ————— Agriculture, Forestry, Water, Fisheries

TIMEFRAME: ————— 2014 - 2019 (with GIZ support ending in 2018)

CASE SUMMARY: ————— The project "Strategic mainstreaming of ecosystem-based adaptation (EbA) in Vietnam" provides the Ministry of Natural Resources and Environment with technical support to systematically integrate innovative ecosystem-based solutions into national and local adaptation planning. To that end it offers capacity training to stakeholders at both the national and provincial level. Moreover, it provides technical support to facilitate the implementation of EbA measures on the ground.

Ecosystem-based adaptation (EbA) is a concept that uses functioning ecosystems to mitigate and adapt to the negative impacts of climate change. The EbA approach has the potential to deliver a vast array of benefits to countries like Vietnam. Vietnam is not only extremely vulnerable to the adverse effects of climate change but also a hotspot for biodiversity. Strengthening the capacity of stakeholders at the national and provincial level to mainstream EbA into national climate adaptation frameworks and other development plans is a key prerequisite for the successful implementation of such an approach.





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BACKGROUND: Vietnam is a country richly endowed with terrestrial and aquatic biodiversity. It is situated in the Indo-Burma Biodiversity Hotspot (IBBH). The country hosts 2 World Natural Heritage Sites, 5 Ramsar wetlands, 8 UNESCO Biosphere Reserves and 2 ASEAN Heritage Parks. A large proportion of its flora and fauna is endemic and needs to be conserved. Vietnam is also one of the countries that is most at risk from being negatively impacted by climate change. Rural communities in Vietnam are heavily dependent on natural resources for their livelihoods. According to a multi-sector impact assessment, the cost incurred by climatic impacts on Vietnam's economy amounts to about USD 6-15 billion/year¹, which is equivalent to about 5% of the country's GDP. Rapid economic growth, increasing population, urbanisation and changes in land use patterns lead to biodiversity loss. Especially natural resource-based livelihoods are under threat. People working in the fields of agriculture, forestry, water and fisheries are suffering the most from the impacts of climate change. These problems call for stringent adaptation and development strategies; strategies that focus on both conservation and improvement of livelihood opportunities and income.

Ecosystem-based adaptation (EbA) constitutes one possible approach. EbA aims to use functioning ecosystems to mitigate and adapt to the negative impacts of climate change. The approach seeks to increase the resilience of ecosystems against adverse environmental changes and, in doing so, contribute to reducing the vulnerability of affected communities. The concept gained considerable momentum after receiving support at the Millennium Ecosystem Assessment (2005). EbA is typically understood as a cost-effective way to protect communities from the impacts of climate change. It can generate significant social, economic and cultural benefits.

The EbA approach has the potential to deliver a vast array of benefits for countries like Vietnam. Vietnam is a hotspot for biodiversity, prioritises biodiversity conservation in its policies, and most importantly, is extremely vulnerable to the adverse effects of climate change. After considering the benefits of EbA and the support from international agencies, the Vietnamese Government launched a program to mainstream the approach within existing development planning (Olivier et al, 2012).

¹Arndt, Channing et al. 2015. The Economic Costs of Climate Change: A Multi-Sector Impact Assessment for Vietnam. MDPI.

ACTIVITIES: To realise the mainstreaming of ecosystem-based measures at both provincial and national level and to ensure effective implementation on the ground, the following activities were conducted at the pilot sites and at the policy level:

- **VULNERABILITY ASSESSMENT OF SOCIAL-ECOLOGICAL SYSTEMS:** To select appropriate sites for pilot interventions, vulnerability assessments of socio-ecological systems were conducted in the provinces of Ha Tinh and Quang Binh in the starting phases of the program. Assessments were carried out at macro and micro levels. The goal was to determine particularly vulnerable areas and information on the adaptive capacity of the communities on the ground.
- **IDENTIFICATION AND PRIORITIZATION OF EBA MEASURES:** Based on a multi-criteria analysis, a number of potential pilot activities were developed for appropriate site areas and villages. Several criteria were applied that allow for prioritization and ensure a successful implementation of the pilots. Criteria included cost, effectiveness, feasibility, co-benefits, flexibility, reversibility, up-scaling potential and inclusion of traditional knowledge. Particular emphasis was thereby given to communities whose lives and livelihoods are interconnected with ecosystem services (Liên et al, 2017).
- **IMPLEMENTATION, MONITORING AND EVALUATION OF EBA MEASURES:** Implementation was carried out with the goal to develop healthy ecosystems that are resilient to changing climatic conditions. Training manuals and guidebooks were prepared to share lessons learnt for other areas. An assessment of sources for financing EbA through both international and national budgets, interna-

tional finance and private sector engagement was conducted. The project disseminated knowledge products with the goal to foster awareness for the EbA approach and help with financial procurement.

• **STAKEHOLDER ENGAGEMENT:** The project sought constant stakeholder engagement to disseminate knowledge, build up capacities and facilitate learning. Workshop and capacity trainings were conducted at the local, provincial and national level. At the local level, stakeholders involved were not only project implementation teams but the communities at large. The training programs involved participants from all socio-economic groups and included both men and women. Their goal was to build understanding and awareness of ecosystems thinking and disseminate knowledge on how to align livelihoods of communities with the larger goal of biodiversity conservation (M and E factsheet, GIZ). At the national and provincial level, tailored trainings were delivered to decision makers and technical experts to provide them with adequate capacities and methods on how to integrate CCA/ EbA into development planning processes. Moreover, the CCA/EbA topic was introduced at two universities to facilitate the mainstreaming of the topic into university curricula. The topic was taken up in a course at Ha Tinh University. Besides training programs, the project closely monitored and evaluated activities. Site visits were conducted to observe and learn about the implementation of good practices.

INSTITUTIONS

INVOLVED:

- **LEAD EXECUTING AGENCY:** Ministry of Natural Resources and Environment (MONRE).
- **SUPPORTING AGENCY:** Germany's International Climate Initiative (ICI) with funding of the German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB).
- **IMPLEMENTATION PARTNERS:** Institute of Strategy and Policy on Natural Resources and Environment (ISPONRE) and Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH.
- **RESEARCH PARTNERS:** ICEM – International Centre for Environmental Management, Hanoi (conducted vulnerability assessments)

UNIQUE forestry and land use GmbH (assessed options for implementation and upscaling of EbA approaches with a focus on coastal protection forest plantations)

World Agroforestry Centre for feasibility study on the implementation of EbA plan in Ha Tinh

- **OTHER GOVERNMENT PARTNERS:** involved for constant engagement, capacity building and facilitating integration of EbA into existing programs: The provincial People's committees (PPC), the Departments of Natural Resources and Environment (DONRE), Departments of Planning and Investment (DPI), Departments of Agriculture and Rural Development (DARD) of Ha Tinh and Quang Binh, VNFOREST, The Vietnamese General Department of Land Administration, Vietnam Environment Administration, Department of Climate Change.

COOPERATION WITH:

Federal Ministry for the Environment, Nature, Conservation, Building and Nuclear Safety (BMUB), Germany

FINANCE:

The project is fully financed by GIZ for the time period 2014-2018 (budget: 4 million EUR).



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- IMPACT OF ACTIVITIES:** —
- **INCREASED INTEGRATED PLANNING AT THE POLICY LEVEL:** With the help of various capacity building and dissemination workshops of the project, EbA actions have been integrated into national sector planning. This impact can be seen through the newly integrated focus on EbA approaches in the Updated Climate Change Response Action Plans (CCRAP) for the years 2016 to 2020.
 - **INCREASED AWARENESS AND ADAPTIVE CAPACITIES AT THE LOCAL LEVEL:** As learnt from the monitoring and evaluation exercise, farmers and local authorities have gained an improved understanding of climate change and its negative impacts. The increased awareness strengthened the adaptive capacity of both women and men. Behavioral change among farmers towards more sound farming practices has been observed over time. Changing plantation practices, including the promotion of horticulture led to increased income and food security. People also adopted improved water use practices for irrigation and drinking water which contributed to increased water security.
 - **ENHANCED ECOSYSTEM HEALTH:** As learnt from the monitoring and evaluation exercise, there has been an improvement in overall ecosystem health observed in increased vegetation cover, soil health and ground water recharge. Thus, the project has contributed to enhance the resilience to cope with extreme climatic events like floods and droughts.

WHY IS IT

- GOOD PRACTICE:** —
- **FINANCIAL VIABILITY:** Measures were chosen on the basis of having low initial and ongoing cost. Instead of introducing costly and entirely new adaptation measures, the focus was to enrich already existing natural resources and change existing practices to secure livelihoods.
 - **TECHNICAL FEASIBILITY:** As the project built on existing resources, it allowed for a fast and smooth implementation.
 - **CO-BENEFITS:** The project achieved considerable co-benefits. It contributed to biodiversity conservation and livelihood development. For example, a focus on improving forest quality lead to income generation along with improved soil health and groundwater recharge.
 - **STAKEHOLDER ENGAGEMENT:** For taking the leap from concept to practice, training programs were conducted with government officials and communities to build their capacities to deal with challenges related to adapting to climate change and implementing an EbA approach. Moreover, knowledge generated during the project was disseminated to a wider national and international audience ranging from subject matter experts, planners and government officials to community representatives using specific project products (e.g. science-policy briefs, infographics). This was done either by conducting workshops or sharing the content on the project website.

- SUCCESS FACTORS:** —
- **COMMUNICATION:** The program was particularly successful in communicating the effectiveness of the EbA approach to communities and incorporating local needs and knowledge. Through capacity-building and applied research the project has been able to show that adopting an EbA approach can successfully safeguard the environment while also addressing development goals (increase in food and water security as well as income).

**OVERCOMING BARRIERS /
CHALLENGES:** —————

**WHAT WERE THE MAIN BARRIERS /
CHALLENGES TO DELIVERY?**

INFORMATION: Relatively new concept

INSTITUTIONAL: Up-scaling

**HOW WERE THESE BARRIERS /
CHALLENGES OVERCOME?**

Simple and effective visual knowledge products have been generated and disseminated to a wider audience including government officials, planners, organisations working with communities, and researchers across the globe.

To achieve the maximum spread of the concept of EbA, several strategies were adopted like hosting training workshops for awareness generation and capacity building. Workshops were conducted to disseminate findings and web-portals and policy briefs were prepared for knowledge transfer. To have a lasting impact, EbA was institutionalised by integrating it into existing development plans.

LESSONS LEARNED: ——— Through monitoring, learning and evaluation the following key lessons have been documented:

- **INTEGRATION OF EBA IN EXISTING PLANS AND POLICIES IS MOST ESSENTIAL** to ensure EbA is considered and implemented at both national and subnational levels. This is vital for the sustainability of the approach.
- **MAINSTREAMING NEEDS TO HAPPEN AT ALL LEVELS.** Institutionalization of frameworks and methodologies will support mainstreaming EbA from national to sub-national and even local developmental plans.
- **INVESTMENT IN CAPACITY BUILDING IS NECESSARY** to create an enabling environment for implementing EbA.
- **SELECTION OF IMPLEMENTATION SITES SHOULD BE DONE IN A WAY THAT ALLOWS FOR MULTIPLE BENEFITS** like income generation, biodiversity conservation and increase in climate resilience of the community.
- **FULL PARTICIPATION OF COMMUNITIES IS REQUIRED** for carrying out various activities with effectiveness and ease, even under time and funding constraints.
- **INFORMATION SHARING IS REQUIRED FOR** providing sufficient public information.
- **TIMELY MONITORING** should be carried out for keeping a check on the progress of adaptation strategies adopted within this specific context.



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HOW TO REPLICATE

- THIS PRACTICE:** ————
- **INVOLVE MULTIPLE STAKEHOLDERS AT VARIOUS LEVELS.** Collaborate with multiple actors, especially with organisations at the community level, to allow for a smooth implementation.
 - **INCREASE AWARENESS AND BUILD CAPACITY OF (POTENTIAL) IMPLEMENTERS.** Increase awareness of the EbA concept to promote the integration of EbA into existing policies and support research on the economics of EbA-based adaptation.
 - **EASE ACCESS TO NATIONAL AND INTERNATIONAL FUNDING SOURCES.** Ensure that there is a finance mechanism in place to support the (continuous) implementation of various EbA activities. Ensure that beneficiaries contribute their own resources to implement and maintain activities. If applicable, attempt to procure international funds.
 - **START TO MONITOR AND EVALUATE ADAPTATION MEASURES TIMELY** to avoid maladaptation.

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FURTHER KEY

RESOURCES: ———— EbA Vietnam Library Catalogue: <https://www.zotero.org/groups/760385/vn-eba/items>

WEBSITE: ———— <http://www.climatechange.vn/en/mainstreaming-eba-in-vietnam>

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CASE STUDY

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