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DOCUMENTATION OF ECOSYSTEM-BASED ADAPTATION (EBA) EXPERIENCES

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About

The following overview contains 44 experiences in Ecosystem-based Adaptation (EbA), ecosystem-based approaches (i.e. Climate Smart Agriculture, Ecosystem-based Disaster Risk Reduction), and other established approaches to adaptation (i.e. Community Based Adaptation).

The experiences are categorised according to geographical coverage and type of intervention. Information is provided on the implementing/executing agencies, project name, whether a pilot measure has been implemented, topic/sector, and references are added. In addition, 'lessons learned' have been distilled from the projects and publications. These different case studies can help guide practitioners in their EbA activities. This so-called 'living document' can be used as a basis where other relevant experiences can be added.

The identified lessons learned can be used to draw general principles for EbA implementation. There are already many publications and projects available which (partly) use principles of ecosystem-based approaches. However, only a limited number of these projects go under the header of 'EbA'. Especially Community Based Adaptation appears to be well established in Vietnam and Southeast Asia, as many projects build on this approach. As Community Based Adaptation has quite some similarities when compared to EbA, lessons from Community Based Adaptation projects can be useful as well.

Country / region	Project/ publication	Pilot measure	Institute / organization	Name	Topic/ sector	Lessons learned	Link
Vietnam	Project	Yes	• GIZ • Institute of Strategy and Policy on Natural Resources (ISPONRE)	Strategic mainstreaming of ecosystem-based adaptation in Viet Nam	• Ecosystem-based Adaptation • Mainstreaming	• EbA is not a stand-alone approach and should be used in addition to other adaptation options. • (N/A)	https://www.giz.de/en/worldwide/27863.html
Vietnam	Publication	No	• WWF • Institute of Strategy and Policy on Natural Resources (ISPONRE)	Operational framework for ecosystem-based adaptation to climate change for Vietnam – A policy supporting document	• Ecosystem-based Adaptation • Mainstreaming	• EbA has potential to play a big role in climate change adaptation in the Greater Mekong Sub-region; • Adaptation /EbA measures should be coupled with activities tackling non-climate related issues which lead to a further increase of human and environmental vulnerability; • EbA can play a large role in coastal management; • The proposed EbA framework should be integrated into climate change-related plans; • EbA should be institutionalized into different levels of decision-making.	http://awsassets.panda.org/downloads/wwf_wb_eba_project_2014_vn_eba_custom_framework_eng.pdf http://awsassets.panda.org/downloads/wwf_vietnam_eba_policy_brief_2013.pdf
Vietnam	Publication	No	• WWF	Strengthening community and ecosystem resilience against climate change impacts – Vietnam case study from field testing an operational framework for ecosystem-based adaptation	• Ecosystem-based Adaptation • Vulnerability Assessment	• Participatory vulnerability assessment is the key to identify current climate and development pressures onto the communities and ecosystems; • While hard engineering based solutions like sea-dykes are traditionally popular in coastal areas, EbA measures can play a significant role in ensuring sustainability of coastal habitats that help people; • EbA or any adaptation measures should be coupled with strategies to address "adaptation deficits" by tackling current non-climate related problems that exacerbate vulnerability.	http://d2ouvy59p0dg6k.cloudfront.net/downloads/wwf_wb_eba_project_2014_vn_case_study_eng.pdf

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Vietnam	Project	Yes	• Canadian Centre for International Studies and Cooperation (CECI) '• Agency for Technical Cooperation and Development(ACTED) • The People's Committees of Lao Cai and Kon Tum provinces	Building community resilience to disasters in upland areas of Vietnam	• Community Based Adaptation • Disaster Risk Reduction • Water	* See publication on 'lessons learnt'	http://www.ceci.ca/en/where-we-work/asia/vietnam/projects/building-community-resilience-to-disasters-in-upland-areas-completed-project/
Vietnam	Project	No	• UNDP • Ha Tinh Union of Science and Technology Associations	Addressing drought and saltwater intrusion issues for agro-development in the Ky Nam Community	• Community Based Adaptation • Agriculture • Water	N/A	http://www.adaptation-undp.org/projects/spa-cba-viet-nam-addressing-drought-and-saltwater-intrusion-issues-agro-development-ky-nam

Country / region	Project/ publication	Pilot measure	Institute / organization	Name	Topic/ sector	Lessons learned	Link
	Project	Yes	• UNDP • Binh Dinh Provincial Plant Protection Scientific and Technical Association	Experimenting a model in peanut production to adapt to droughts and flooding in Binh Thuan Commune, Tay Son District, Binh Dinh Province	• Community Based Adaptation • Agriculture • Water	Issues to address: • For climate change adaptation projects to be implemented in difficult areas that encountered high risks posed by unpredictable weather conditions, due attention should be paid to the enhancement of local officials' capacity in responding to climate change as well as capacity in supporting the community to maintain their production so as to ensure the success of the model; • More consideration should be given to the soil conditions and especially to the additional source of water and drainage in selecting the site for the development of the model for shifting to the cultivation of terrestrial crops on rice growing land so as to ensure the success of the model; • As hot and arid weather conditions tend to grow harsher, further studies should be conducted on technical solutions for cultivating heat-and-drought resistant peanut; and techniques to be transferred should be further improved (such as technical aspects of peanut seed varieties, management of nutrition, use of humidity carriers for soil and use of bio-products for preventing harmful disease, etc.).	http://www.vacne.org.vn/Images/file/Vietnam%20CBA_lesson%20learnt_e.pdf

Country / region	Project/ publication	Pilot measure	Institute / organization	Name	Topic/ sector	Lessons learned	Link
						Success: • The selection of the project site and issues that need to be addressed in conformity with the reality and with the local authority's and people's requirements were decisive factors for the success and for the possible replication of the project's results; • The partnership between GEF SGP and the province/district: GEF SGP and the Binh Dinh provincial People's Committee had very good relationship; • The Project Management Unit was the province's Scientific and Technical Association for Plant Protection; and the expert team members were all prestigious professionals with experience in production management, who created a close coordination with provincial, district, commune and community leaders, making the project performance progress smoothly; • The community within the project area had a very high unanimity and good cooperation in implementing all activities of the project; • The project's technical procedures for cultivating peanut were developed based on the results of scientific and technical advancements combined with indigenous knowledge, which, through the practical model verification , proved to be uncomplicated and scientific, was highly appreciated by the agricultural sector, the local authorities and the community.	

Country / region	Project/ publication	Pilot measure	Institute / organization	Name	Topic/ sector	Lessons learned	Link
Vietnam	Publication	Yes	• Canadian Centre for International Studies and Cooperation (CECI) '• Agency for Technical Cooperation and Development(ACTED) • The People's Committees of Lao Cai and Kon Tum provinces	Building community resilience to disasters in upland areas of Vietnam: Lessons learnt	• Community Based Adaptation • Disaster Risk Reduction • Water	• Few agencies have worked with ethnic minorities within upland areas in Viet Nam on Disaster Risk Reduction (DRR). The project learnt the importance of piloting, testing, closely monitoring, reiterating, conducting refresher courses, repeating events, and only expanding those activities that proved to reduce the impact of disasters. Such an approach takes considerable time and patience, as well as openness to explore what worked, what didn't work, and why; • It is important to work within current strategies and structures to increase ownership and sustainability of DRR activities; • Involving all local layers of government (province, district, and commune) is crucial due to the different roles they play in advocating for and rolling-out the project (provincial level), in supporting and mentoring (district level), and in training and implementation (commune level); • Awareness-raising activities must be done in the local ethnic language. This can be achieved through using local district and commune trainers who know the language in addition to Vietnamese. Awareness-raising tools should use more pictures representative of the target area and less text, with trainers available to explain the picture messages; • Learning-by-doing is the preferred method to teach people about DRR; • Using fun activities helps attract and engage people during awareness-raising events; • Early warning services such as rain gauges need to be simple and reliable as well as easy to maintain and operate if local authorities are to use and rely on such services; • Investment in appropriate communication services within upland areas (such as wireless systems) can prove beneficial to disseminate disaster warning messages as well as for DRR awareness-raising purposes; • The use of participation was new for the ethnic communities as well as for district and commune trainers; • Digital hazard maps are useful tools for archiving disasters and for planning purposes.	http://accad.sean-cc.org/components/com_msearch/file_uploads/content_attachment/5f69625da29c5c9dde523dcbda170b80.pdf

Country / region	Project/ publication	Pilot measure	Institute / organization	Name	Topic/ sector	Lessons learned	Link
Vietnam	Project	No	• UNDP • Union of Science and Technology Associations of Binh Dinh Province	Reducing the impact of flooding caused by sea level rises to promote sustainable agriculture production and ensuring food security at Phuoc Hoa Commune	• Community Based Adaptation • Agriculture • Water	Issues to address: • Due attention should be paid to the survey and assessment of current state that generate baseline data for the project; • Anticipating more serious flooding and salinity conditions and further studies on more appropriate techniques of cultivating rice (rice varieties, nutrition management, supporting products, etc.) so as to produce more appropriate solutions; • For the projects on climate change adaptation, consideration should be given to the allocation of appropriate budget for transfer of scientific and technical advancements to especially difficulty areas where weathers are often abnormal, causing possible high risks and where capacity to respond to climate change is low, and where community income is low. Success: • The selection of the project site and the solutions to issues within the framework of the project has positively responded to the reality and the imperative requirements of the local authority and people. This constitutes a decisive factor for the success of the project and the possibility of replicating the results of the project; • The partnership between GEF SGP and Binh Dinh provincial People's Committee proved to be a very good one; • Through the implementation of the project, the Project Management Unit and the Project Team of Experts have improved their management capacity in implementing projects on climate change. For DARD, the People's Committees of Tuy Phuoc district and of Phuoc Hoa commune, the results of the project would constitute a basis for working out plans to support the transfer of techniques of cultivating rice adaptive to flooding, acidity and salinity in areas along eastern river bank. For the community in the project area, the capacity of producing rice adaptive flooding, acidity and salinity has been enhanced, and people's livelihood has been stabilized;	http://www.adaptation-undp.org/projects/spa-cba-viet-nam-sustainable-agricultural-production-and-food-security-phuoc-hoa-commune

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						• The Project Management Unit is the provincial Union of Scientific and Technical Associations and members of the team of experts are prestigious and highly experienced in production management, all have had close coordination with provincial, district and community leaders, thus making the management of the project to carry out smoothly; • People in the community in the project area have adhered to complete unanimity and proactively cooperated in implementing all activities of the project especially the commune's Women Association; • How the progress of the project was developed was based on those scientific and technical advancements, in combination with indigenous knowledge, free from any complexity, and have been proved by the formation of models that received high appreciation from the agricultural sector, the local authority and people.	

Country / region	Project/ publication	Pilot measure	Institute / organization	Name	Topic/ sector	Lessons learned	Link
Vietnam	Project	Yes	• UNDP • Consultative and Research Center on Natural Resource Management (CORENARM)	Adaptation through conservation and sustainable use of natural resources in Thua Thien Hue Province	• Community Based Adaptation • Ecosystem-based Adaptation • Coastal Management • Agriculture • Aquaculture • Water	Success: • Engaging the participation and contribution of both local farmers and authorities in project activities was necessary to enhance their awareness and capacity in combination with practical training (speaking and doing together). Project information was publicized and consulted with Commune People's Committee and other functional organs of the district to mobilize their assistance, support and advices in the implementation period; • Mobilized the participation and contribution of local communities and authorities by publicizing all sources of investment and financial assistance, consulting with both communities and local authorities, selecting beneficiaries in an open and democratic manner. These actions attracted local farmers to raise their voices, make contribution in terms of time and materials for the project; • Regularly exchanged information with and asked for comments from communities at consultation meetings to get their consensus for project activities. On the other hand, local authorities of all levels and community-based organizations were also engaged; • Local farmers participated in testing the models and innovations, through which they accepted the risk and contributed fund to implement the innovations, together with the technical assistance from the project experts; • Combined traditional knowledge and advanced science and technology: project activities have fully maximized the knowledge and experiences of local farmers. Project indicators were improved with local knowledge and experience. Their experience contributed to the success of the project and also helped to fine-tune the technical approach to fit with local context;	http://www.adaptation-undp.org/projects/spa-cba-viet-nam-adaptation-through-conservation-and-sustainable-use-natural-resources-thua

Country / region	Project/ publication	Pilot measure	Institute / organization	Name	Topic/ sector	Lessons learned	Link
						• The project activities were simple and in small size, but very effective and sustainable. With such small size, the project could provide very focused and detailed guidance. The technical procedures were documented and discussed during group discussion, on-site training between trainers, project implementers and observers (learning households). This helped to correct the techniques in a timely manner and also facilitated the two-way discussion among stakeholders. The good results were replicated at a large scale; • Project Management Unit Head was from CORENARM while membership was representatives from District Divisions (Economic and Agricultural Extension Division), leader of Huong Phong Commune People's Committee. This structure allowed the smooth coordination of the project activities, particularly in promoting the role of Huong Phong leaders in directing, guiding and engaging local farmers; • The Project Management Unit also maintained close cooperation with local authorities and groups of experts to set project criteria and conduct the output-based evaluation against project activities. The Steering Committee together with the group of experts organized consultation on all the relevant issues at all levels, including District level, down to commune, village and individual levels to obtain consensus and assistance from both local authorities and communities in implementing the project activities.	

Country / region	Project/ publication	Pilot measure	Institute / organization	Name	Topic/ sector	Lessons learned	Link
Vietnam	Project	Yes	• UNDP • Fisheries Associations of Thanh Hoa Province	Developing an adaptation model in aquaculture development in Con Truong, Hoang Chau Commune, Hoang Hoa District, Thanh Hóa Province	• Community Based Adaptation • Ecosystem-based Adaptation • Aquaculture • Coastal Management • Disaster Risk Reduction	Success: • The project was well-designed to tackle the urgent needs to improve resilience to climate change. The detailed actions were developed based on actual demands of beneficiaries, which brought benefits not only to the project but also to the commune in particular and for the whole province in general; • Beneficiaries were well-selected, contributing to the success of the project; • Project approaches to awareness raising and capacity building were sound to beneficiaries in particular as well as development viewpoints in general; • Project Steering Committees membership possessed rich experiences, good qualifications and whole-hearted dedications to climate change sector. They also had experience working in development projects of non-governmental organizations in Viet Nam; • Project implementation approach was science-based and sound for the whole project duration, including the selection of beneficiaries, recruitment of experts, activity design and implementation; • Project monitoring and evaluation was well-designed to ensure that the project was on the right track and compliant with the set objectives.	http://www.adaptation-undp.org/projects/spa-cba-viet-nam-minimizing-climate-change-impacts-sustainable-aquaculture-con-truong-hoang

Country / region	Project/ publication	Pilot measure	Institute / organization	Name	Topic/ sector	Lessons learned	Link
Vietnam	Project	Yes	• UNDP • Women's Union of Vinh Chau District	Onion-based cultivation crops to adapt to droughts and saline intrusion in Vinh Chau Commune	• Community Based Adaptation • Agriculture	Success: • The project combined traditional experiences with up-to-date science and technology; • The project matched the local people's desire and the local socio-economic development plan of the People's Committee of Vinh Chau district; • The community really participated in the implementation and ownership of the project such as: participating in discussions about the selection of households, training activities, study visits, farmer-field workshops, assessment of the project (VRA), and acting as a member in the project management unit, and so on; • The implementation of the project was well-matched organized as it was paid due attention by the GEF SGP and supported by the local authority and community; • The project arranged work for officials with suitable management qualifications from local line departments and authorities to take part in the project management unit and the consultant group; • The project implementation was well organized and managed, which contributed to improving local gender equity in the project area where the majority of people is the Khrme ethnic; • The project built up the confidence of the local authority and received its multifaceted support, especially, positive response from grassroots level women's unions, farmers' association and the people committees of Vinh Chau commune, and of the Vinh Chau district, and established a strong partnership among stakeholders.	http://www.adaptation-undp.org/projects/spa-cba-viet-nam-onion-based-cultivation-crops-adapt-droughts-and-saline-intrusion-vinh

Country / region	Project/ publication	Pilot measure	Institute / organization	Name	Topic/ sector	Lessons learned	Link
Vietnam	Publication	Yes	• GEF	Community based adaptation: Experiences from GEF Small Projects	• Community Based Adaptation • Agriculture • Ecosystem-based Adaptation • Aquaculture • Water • Disaster Risk Reduction • Coastal Management	*Comprehensive publication with results and lessons learnt from different projects under the GEF Small Grants Programme.	http://www.vacne.org.vn/Images/file/Vietnam%20CBA_lesson%20learnt_e.pdf

Country / region	Project/ publication	Pilot measure	Institute / organization	Name	Topic/ sector	Lessons learned	Link
Vietnam	Project	Yes	• UNDP • Bac Lieu Farmers' Associations	Conservation & sustainable use of drought and salinity-tolerant rice varieties in Phuoc Long Community	• Community Based Adaptation • Agriculture	Success: • Selection of project sites: project site was Phuoc Long commune due to its exposition to salinization and droughts, in compliance with the selection criteria of a climate change project. Additionally, Phuoc Long was also a targeted commune in the master plan of Bac Lieu People's Committee for practicing the integrated rice and shrimp pattern; • The project scope was limited only to the development of a model or pattern for drought and salinity-resistant strain conservation, promotion and transferring the model was also a priority in the Action Plan to Respond to Climate Change for the Agricultural Sector of MARD; • Project was innovative in screening Mot Bui Do, a traditional strain, in integration with the science-based selection method. The project also applied integrated approaches for conserving, developing and improving the rice and shrimp pattern which was proven by the international science to be highly resilient to salinization by using sludge from shrimp farming for rice cultivation; applying ICM, IPM to limit the use of fertilizers and chemicals; reducing environmental pollution and producing high yield and clean shrimp and rice products; • The project received the support from local authorities and communities. All the stakeholders shared common viewpoints and high sense of responsibilities; • This was the first project coordinated by Bac Lieu Farm Association; therefore, they faced many difficulties in the first period. However, through implementing the project, their capacity was significantly improved to implement future projects more effectively; • Local farmers' awareness was enhanced on climate change impacts and the capacity for sustainable agricultural practices. These were significant contributions to the success of the project; • Indigenous knowledge was integrated in the rice and shrimp pattern which was illustrated through the digging of boundary canals, sound land preparation techniques in association with integrated, sustainable land and water management and techniques used in rice cultivation.	http://www.adaptation-undp.org/projects/spa-cba-viet-nam-conservation-sustainable-use-drought-and-salinity-tolerant-rice-varieties

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Vietnam	Project	Yes	• UNDP • Thanh Hoa Irrigation Associations	Applying technologies to address flash floods and drought in Cam Tam Commune	• Community Based Adaptation • Disaster Risk Reduction • Water • Agriculture	Issues to address: • The model for drought-tolerant upland rice variety was not successful due to inappropriate sowing and planting time; • As confidence was not gained from local authority/ relevant line departments and/or divisions, a matching fund was not allocated by province/district to the project and therefore a model remains unimplemented; • The dissemination and outreach of information about the project activities and results were limited. There was no articles or reports on the project performance results posted on websites of the local and other organizations specialized in the field of climate change; • The selection of technical experts for the team was dispersed in terms of distance (some live hundreds of kilometers away) and their qualifications (many of experts with the same specialty). The team now comprises of local experts selected and recruited to ensure the requirements of the expansion of the project and as the result the operation of the team is now being more facilitated.	http://www.adaptation-undp.org/projects/spa-cba-viet-nam-applying-technologies-address-flash-floods-and-drought-cam-tam-commune

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						Success: • Local community was able to participate in and take ownership of the project and have access to its benefits: the project facilitated local people's participation in the implementation of all activities, and provided them with training, technical and financial supports. The implementation of activities such as field survey, planning as well as policy recommendation allowed the local people's participation as they are the project beneficiaries; • The local authority well perceived the project goals and objectives and coordinated closely with the project management unit and its team of experts in mobilizing local human resources and allocating necessary resources (including financial resource) to organize the implementation of activities and community-based monitoring in order to ensure the success of the project. These activities are now continuously implemented based on a plan for the development and replication of effective models developed by the project; • Techniques and indigenous/traditional experience was a successful combination that continues to be adopted by local community to replicate the project's results after its completion; • A technical process proposed by the project has been reviewed by a local specialized agency, approved and transferred to local community for adoption; • Proactive training of human resources during the project's replication process: the local community has a sense of mutual assistance in the replication of models developed by the project (especially the model for spring water exploitation and use), and in the adoption of successful techniques to improve the efficiency of local production; • The suitability of selected strategies and technical solutions combined with local community's aspiration/local guideline on socio-economic development with investments by local community, the project's results have been maximized.	

Country / region	Project/ publication	Pilot measure	Institute / organization	Name	Topic/ sector	Lessons learned	Link
Vietnam	Project	Yes	• GIZ • Ministry of Agriculture and Rural Development (MARD)	Integrated coastal management programme (ICMP)	• Ecosystem-based Adaptation • Coastal management	• At a regional level, inter-provincial cooperation among local governments is crucial for effectively implementing projects such as coastal management; • Proper techniques regarding mangrove rehabilitation, agriculture, and aquaculture could be identified separately through on-site research activities at an individual province level; • Institutionalized vertical and horizontal (inter-provincial) cooperation by establishing a regional committee, which could act as a bridge between local and the national governments and promote mutual communications among them, is essential for successfully implementing the solutions obtained from ICMP. • A key to successfully expanding good practices of ICMP throughout the Mekong Delta region will be to develop an effective institutional framework under which relevant stakeholders (e.g. government officials, farmers, and researchers) at national and provincial levels can cooperate. • Specific manuals and guidelines for implementing technologies would also be good references for relevant stakeholders to understand how to implement technologies and to learn about their effects. It would be useful for the national government, such as MARD, to provide such information as national guidelines.	http://daln.gov.vn/en/agc173a232/about-icmp.html https://www.env.go.jp/en/earth/cc/casestudy/casestudy2_5.pdf

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Vietnam	Project	Yes	• GIZ • Ministry of Agriculture and Rural Development (MARD)	ICMP/CCCEP Phase I: Final Report – Integrated Coastal and Mangrove Protection in the Mekong Provinces for the Adaptation to Climate Change / Climate Change and Coastal Ecosystems Programme	• Ecosystem-based Adaptation • Coastal management	• Broad-scale impact needs institutionalisation; • Broad-scale impact needs cross-provincial cooperation; • Broad-scale impact needs more and more diverse actors; • Broad-scale impact needs international coordination.	http://daln.gov.vn/r/files//ICMP-CCCEP/tai_lieu/ICMP_CCCEP_Final_Report_Phase_I.pdf
Vietnam	Publication	Yes	• GIZ	Mangrove management a manual to appropriate mangrove conservation and planting in the Mekong Delta	• Coastal management • Ecosystem-based Adaptation • Natural Resource Management	This document is a manual with steps to take and considerations needed in order to conserve and plant mangroves.	http://daln.gov.vn/r/files//ICMP-CCCEP/tai_lieu/Document/124-Mangrove-Management-Manual-EN.pdf

Country / region	Project/ publication	Pilot measure	Institute / organization	Name	Topic/ sector	Lessons learned	Link
Vietnam	Project	Yes	• Asian Development Bank (ADB) • UNDP • Ministry of Agriculture and Rural Development (MARD) • Ministry of Construction	Promoting climate resilient rural infrastructure in Northern Mountain Provinces	• Green infrastructure • Bioengineering • Agriculture • Ecosystem-based Adaptation • Coastal management	N/A	http://www.adaptation-undp.org/projects/sccf-climate-resilient-infrastructure-viet-nam http://www.adb.org/projects/41461-042/main#project-overview http://icem.com.au/portfolio-items/vietnam-resilience/
Vietnam	Publication	Yes	• ICEM	Volume 6: Building urban resilience in Dong Ha, Vietnam	• Ecosystem-based Adaptation • Green infrastructure • Urban • Bioengineering • Vulnerability assessment	• Green infrastructure is a critical component of ecologically sustainable urban development; • Loss of natural systems has reduced natural resilience; • Promoting natural systems as the foundation for wise development in Dong Ha; • Reorientation to green infrastructure in donor partners needed; • The Group Core as a window to stakeholder participation; • A climate change threat and impact data base to support adaptation planning; • Urban heat and its consequences need further study; • Current urban planning in Dong Ha does not consider climate change; • Poor performance in internationally support infrastructure projects; • Unifying area wide planning; • Line agency influence on planning decisions; • Private sector contributions to building resilience; • Participatory mapping and expert knowledge enabled the Core Group to overcome a lack of data for undertaking vulnerability assessment and developing adaptation plans.	https://drive.google.com/file/d/0B2ZMawu_icvwY25yQkZkTENxdHM/view

Country / region	Project/ publication	Pilot measure	Institute / organization	Name	Topic/ sector	Lessons learned	Link
Various	Publication	Yes	• UNDP • UNOPS • GEF • UNV	Final evaluation report for the Community Based Adaptation Programme	• Community Based Adaptation • Agriculture • Ecosystem based Adaptation • Water • Coastal Management	• Much of the success of local activities was due to the fact that they were designed to address local needs, vulnerabilities, and perceptions, with the aim of sustaining livelihoods while adapting to climate change; • The approach of the CBA Programme and its projects (non-paternalistic, generating and building capacity and is community centered and driven in terms of planning, prioritizing activities, implementing and participatory evaluation of the actions on the ground) has been a key positive factor for success and effectiveness; • The application of community mobilization and participatory research Tools, instruments, knowledge products, and implementation methodologies have been successful when they are simple and easily comprehended by local community members to ensure that local groups are mobilized and local needs are addressed; • The incorporation of gender issues was a key positive aspect of the local to global activities, which were aggregated into knowledge management products for global dissemination; • Gender mainstreaming gave visibility of climate change issues upon women and worked towards equitable adaptation issues;	http://www.adaptation-undp.org/sites/default/files/downloads/cba_-_final_evaluation.pdf

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						• Since CBA projects are community based and managed, the civil society participation in all aspects of projects stages and simultaneous involvements of all sectors and demography's in the communities, especially the most vulnerable ones such as disabled, the poor and voiceless, need to be fully recognized and made to contribute in identifying current and future vulnerabilities to climate change. In addition, they should all be involved in formulating the response strategies and eventual monitoring of the projects. • The highly technical and complex application process should be commensurate with the capacities of the local communities to complete the process successfully; • Global partners' relations and inter-linkages were stressed at times, straining working relationships among the global partners and at the same time confounding national and local components of the Programme. Global partners' relations and expectations should be clearly marked and delineated from the projects' onset, defining working relationships, inputs by each partner, and joint visibility; • Monitoring processes were highly complex, multiple, and not commensurate with the sort of projects and the local capacities in project management.	
Various	Project	Yes	• Wetlands International • WWF • Both ENDS • IUCN	Green Coast: community-based coastal restoration	• Ecosystem-based Adaptation • Coastal management • Community Based Adaptation	• Restoring coastal ecosystems help to protect communities and livelihood from the impacts of climate change, including storms, flooding, erosion and associated problems; • Mangroves dissipate the energy and reduce the size of wave heights 5-7.5 times more than unvegetated beach surfaces (Quartel et al., 2007) and therefore can be used to increase the resilience of coastal areas; • Local inhabitants are directly involved in plantation and nursing activities, that way they can actively participate in the restoration of their environment and conservation practices.	http://archive.wetlands.org/OurWork/DisasterRiskReduction/Mangrovesforcoastalresilience/10YearsLater/GreenCoastscommunity-basedrestoration/tabid/436/Default.aspx

Country / region	Project/ publication	Pilot measure	Institute / organization	Name	Topic/ sector	Lessons learned	Link
Various	Publication	Yes	• Wetlands International • WWF • Both ENDS • IUCN	Green Coast: community-based coastal restoration	• Ecosystem-based Adaptation • Community Based Adaptation • Coastal management	• Soaking stored propagules can reduce the risk of pest attacks; • Planting mangroves on the edge of mudflats gives the best results. Conversely, planting on the seaward side should be avoided; • Steep embankments reduce the risk of attack from pests; • Intensive facilitation in the field is more valuable than the other systems of facilitation ('periodic' and 'occasional'). Intensive facilitation makes it possible to establish smooth communication and coordination; • The presence of a particular species of plant or animal can be a biological indicator of whether or not the site is suitable for the purposes of rehabilitation. • Mineral soils can be used as an alternative media to replace mud for mangrove; • If an ideal nursery site cannot be found, pool model nursery can be used as an alternative.	http://archive.wetlands.org/Portals/0/Major%20Projects/WLP/Lessons%20Learnt%20in%20Aceh%20(English)-GC%202.pdf
Various	Publication	Yes	• UNDP	Generating multiple benefits from ecosystem-based adaptation in mountain ecosystems	• Ecosystem-based Adaptation • Co-benefits	• Generate short-term economic and social benefits to ensure buy-in for longer term environmental benefits; • Create understanding of how different benefits are generated and relate to one another; • Implement EbA at a landscape scale; • Observed co-benefits can be economic, environmental or socio-cultural.	http://www.adaptation-undp.org/sites/default/files/downloads/undp_mt_eba_learning_brief_2_final_web_04.01.16.pdf

Country / region	Project/ publication	Pilot measure	Institute / organization	Name	Topic/ sector	Lessons learned	Link
Various	Publication	No	• UNDP	Making the case for policy change and financing for ecosystem-based adaptation	• Ecosystem-based Adaptation • Ecosystem-based Adaptation financing	• The first step in bringing about policy change for EbA is to identify effective entry points; • At the national level, key entry points for policy change for EbA include policies such as National Development Plans, National Climate Change Policies, environment and conservation strategies, sectoral plans and policies; • Making the case for policy change for EbA at regional and local level is especially relevant, given that planning and implementation works best at landscape or ecosystem level; • Protected areas were found to be ideal entry points for planning and implementing landscape-level EbA; • At district and local level, existing natural resource management groups have been important entry points; • EbA is relevant across sectors, but policy change is still needed in all Programme countries for integrating EbA into sectoral planning and budgeting • Public financing for EbA can be allocated through national budgets across sectors and at multiple scales, ranging from local to regional and national level budgets; • Engaging with regional and district governments on budgeting for EbA from public finance sources can be particularly relevant; • Providing technical guidance to the policy process while showcasing benefits of EbA on the ground were both important in making the case for EbA finance; • Payments for Ecosystem Services (PES) provide a relevant model for EbA financing; • Community economic incentive schemes were important in making the case for EbA at local level to communities and local government. This was especially the case before the long-term benefits of EbA measures could be shown; • Incentive schemes for EbA should form part of a broader approach to adaptation planning and implementation.	http://www.adaptation-undp.org/sites/default/files/downloads/undp_mt_eba_learning_brief_4_web_vs_12.01.16.pdf

Country / region	Project/ publication	Pilot measure	Institute / organization	Name	Topic/ sector	Lessons learned	Link
Various	Publication	Yes	• UNDP	Making the economic case for ecosystem-based adaptation	• Ecosystem-based Adaptation • Cost-benefit Analysis	• Undertaking a cost-benefit analysis for EbA measures is thus likely to require more extensive background research on multiple benefits than is normally the case when doing CBA; • Quantifying benefits in a CBA is also challenging. Certain data on benefits, such as those relating to ecosystem functions, can be hard to obtain; • Lack of data can also lead to an undervaluation of the benefits provided by EbA; • Time is an important factor as it may take too long to generate the necessary information on benefits for the CBA for it to be of value to a specific decision-making process; • It is challenging to incorporate climate change considerations into the cost-benefit analysis. In order to do so, it may be necessary to build on other studies that have already estimated the anticipated impact of climate change on the specific project area; • It is not always easy to capture all benefits.	http://www.adaptation-undp.org/sites/default/files/downloads/undp_mt_eba_learning_brief_3_final_web_vs_05.01.16.pdf
Various	Project	N/A	• UNEP	Building climate resilience of urban systems through Ecosystem-based Adaptation (EbA) in the Asia-Pacific region	• Ecosystem-based Adaptation • Urban	N/A	http://addis.unep.org/projectdatabases/01279
Various	Project	Yes	• ICRAF	Climate smart, tree-based investments in adaptation and mitigation	• Forestry • Agriculture • Water • Vulnerability Assessment	N/A	http://www.worldagroforestry.org/project/climate-smart-tree-based-co-investment-adaptation-and-mitigation-asia

Country / region	Project/ publication	Pilot measure	Institute / organization	Name	Topic/ sector	Lessons learned	Link
Various	Project	Yes	• CGIAR • ICRAF	Climate Smart Villages	• Forestry • Agriculture • Climate Smart Agriculture • Community Based Adaptation	This is a larger site where various projects of the implemented Climate Smart Villages of the CGIAR are documented. Each of the projects have different goals but contribute to knowledge creation and evidence-based climate smart agriculture.	https://cgspace.cgiar.org/bitstream/handle/10568/33322/CCAFSClimate-SmartVillages2013.pdf http://www.worldagroforestry.org/sea/Publications/files/brochure/BR0032-15.pdf
Thailand	Project	Yes	• GIZ • Department of Water Resources (DWR)	Improved management of extreme events through Ecosystem-based Adaptation in watersheds (EcoSWAT)	• Ecosystem-based Adaptation • Water • Disaster Risk Reduction	N/A	www.ecoswat-thailand.com
Philippines	Project	Yes	• GIZ • Department of Environment and Natural Resources (DENR)	Adaptation to climate change in coastal areas (ACCCoast)	• Coastal management • Marine protection • Ecosystem-based Adaptation	*See publication on 'lessons learnt'	http://acccoast.bmb.gov.ph/

Country / region	Project/ publication	Pilot measure	Institute / organization	Name	Topic/ sector	Lessons learned	Link
Philippines	Publication	Yes	• GIZ	Development of climate change adaptation measures in GIZ ACCCoast-supported sites	• Coastal management • Marine protection • Ecosystem-based Adaptation	• It would have been best for the program if a clear framework was linked to the strategy it implemented so that the work of its different partners and grantees clearly lead towards the program goals, targets, and objectives. The framework should also show how the different program goals lead towards outcomes; • Documentation of events/interventions supported by the project was not always consistent and complete. This made it difficult to track the contribution of the program to activities which were co-sponsored with other organizations; • Performance monitoring: ACCCoast supported more than 130 MPAs around the country. However, the support provided was different from each site and expectations also varied across the MPAs. Although there was an overall expectation to improve MPA effectiveness as a climate change adaptation strategy, the lack of a framework made it difficult to properly synthesize program results from the different MPAs; • Integration sites: Support focused on one or two aspects of MPA management (e.g., monitoring, communications, research, enforcement, etc.). The sites where researches and scientific studies were conducted did not coincide in the same sites where management interventions were implemented; • Incorporate researches and studies into MPA management programs: Researches and studies could be more useful if these were integrated into the MPA management programs of local governments and not as a separate initiative; • Transform challenges into opportunities; • Account for fund flexibility for climate change adaptation programs. The best way to test climate change adaptation strategies is to implement it during or after a climate-related disturbance; • Good governance is crucial not only in project implementation but also in sustaining CRM at the barangay, municipality, and province levels; • Good relationship between LGU and fisher folk organizations/POs promotes successful MPA management and coastal resource management.	http://acccoast.bmb.gov.ph/images/ACCCoast_CCA_Lessons_Learned.pdf

Country / region	Project/ publication	Pilot measure	Institute / organization	Name	Topic/ sector	Lessons learned	Link
Philippines	Publication	No	• Conservation International (CI) • Marine Environment and Resources Foundation (MERF)	Vulnerability assessment tools for coastal ecosystems	• Coastal management • Vulnerability assessment • Marine protection	This Guidebook presents a suite of VA tools that are intended purposely for coastal systems, and are best for measuring vulnerability in a local setting.	http://www.coraltriangleinitiative.org/sites/default/files/resources/42_Vulnerability%20Assessment%20Tools%20for%20Coastal%20Ecosystems_A%20Guidebook.pdf
Myanmar	Project	Yes	• UNDP • Ministry of Environmental Conservation and Forestry (MOECAF)	Addressing climate change risks on water resources and food security in the Dry Zone of Myanmar	• Water • Agriculture • Community Based Adaptation • Forestry	N/A	http://www.adaptation-undp.org/projects/af-myanmar
Lao PDR	Project	Yes	• UNDP • Lao PDR National Agriculture and Forestry Research Institute (NAFRI)	Improving the resilience of the agriculture sector in Lao PDR to climate change Impacts	• Agriculture • Economic diversification • Community Based Adaptation	N/A	http://www.adaptation-undp.org/projects/ldcf1-lao-pdr

Country / region	Project/ publication	Pilot measure	Institute / organization	Name	Topic/ sector	Lessons learned	Link
Lao PDR	Publication	Yes	• ICEM	Volume 7: Building urban resilience in Kaysone Pomvihane, Lao PDR	• Ecosystem-based Adaptation • Green infrastructure • Urban • Bioengineering • Vulnerability assessment	• Broad consultation is key to adaptation success; • Siting of strategic infrastructure away from flood prone areas: Care is required in building resilience into the Mekong River exit points and proposed treatment plant near the market; • Area wide approaches to adaptation in specific infrastructure assets: Additional adaptation measures are required for the northern flood gates along the lines proposed for the southern flood gates; • National and local government collaboration on adaptation and urban planning: Core Group members raised the problem of a lack of coordination and consultation between the national and provincial governments on urban planning and management issues in towns – especially important now with projected climate change. An example provided was the special economic development zone to the north of the town; • Participatory mapping of past extreme events and flooding and overlaying a defined climate change profile for the town enabled the Core Group to overcome the constraint that no flood or climate change maps had been prepared for Kaysone – and the economic development plan and master plan did not have the benefit of accurate assessments of flooding potential and its implications for land uses.	https://drive.google.com/file/d/0B2ZMawu_icvwaXhRTC13UGE1UVE/view?usp=drive_web
Greater Mekong Sub-Region	Publication	No	• WWF • World Bank	Operational framework for Ecosystem-based Adaptation - implementing and mainstreaming Ecosystem-based Adaptation responses in the Greater Mekong Sub-Region	• Ecosystem-based Adaptation • Mainstreaming	• It is essential to consider the social-ecological systems, vulnerability, and resilience in the EbA context; • In order to achieve better climate change adaptation outcomes, EbA design and implementation can follow these 4 steps: Step 1: Vulnerability assessment of Socio-Ecological Systems Step 2: Identification and Prioritization of EbA Responses Step 3: Implementation and Monitoring of EbA Responses Step 4: Mainstreaming EbA in National and Local Climate Change Planning	http://awsassets.panda.org/downloads/wwf_wb_eba_project_2014_gms_ecosystem_based_adaptation_general_framework.pdf

Country / region	Project/ publication	Pilot measure	Institute / organization	Name	Topic/ sector	Lessons learned	Link
Greater Mekong Sub-Region	Publication	No	• ICEM	Volume 1: Nature based solutions for sustainable and resilient Mekong towns	• Ecosystem-based Adaptation • Green infrastructure • Urban • Bioengineering	• Green infrastructure approaches and an emphasis on rehabilitating and expanding natural systems in towns are an essential foundation for building urban resilience in the Mekong region; • Gains in resilience can only be achieved through significant reforms to existing systems of urban planning and development control; • Town master planning should be formally adopted as a cyclical process; • Climate change threat and impact assessment needs to be an integral part of town planning; • Consultation across sectors and with local communities is key to adaptation success; • Local adaptation plans are needed for particularly vulnerable areas; • Area wide approaches to adaptation of specific infrastructure assets; • Climate Change Core Groups bring cross sector collaboration in resilience building: To function effectively core groups need to be formally recognized with a clear mandate and secretariat, and financial and political support; • Siting of strategic infrastructure away from severe flood prone areas; • Technology can improve information, public consultation and consensus in adaptation planning; • Participatory mapping is an essential process for towns to document past extreme events and projected changes; • Zoning schemes and development controls provide the framework for building urban resilience; • Comprehensive asset management and good operation and maintenance procedures are needed for increasing resilience; • Simple and practical vulnerability assessment and adaptation planning methods are needed as part of town planning and project review.	https://drive.google.com/file/d/0B2ZMawu_icvw0Eh1Q2k4eFZmSWs/view

Country / region	Project/ publication	Pilot measure	Institute / organization	Name	Topic/ sector	Lessons learned	Link
Greater Mekong Sub-Region	Publication	No	• ICEM	Volume 2: Green infrastructure for resilient Mekong towns	• Ecosystem-based Adaptation • Green infrastructure • Urban • Bioengineering	The Green Infrastructure volume introduces more than twenty nature-based solutions of special relevance to Mekong towns. They are grouped into four categories: Water and Flood Management, Slope Stabilisation, Pollution Management, and Heat, Energy, and Green House Gas Emissions Management.	https://drive.google.com/file/d/0B2ZMawu_icvwTG1TQVItanpCTTQ/view
Greater Mekong Sub-Region	Publication	No	• ICEM	Volume 3: Urban planning for building resilient Mekong towns	• Ecosystem-based Adaptation • Green infrastructure • Urban • Bioengineering	This volume describes the urban planning and management framework needed to facilitate and guide the uptake of green infrastructure. It gives special attention to the role of town master planning and the use of zoning schemes and associated safeguards in promoting development that embraces nature-based approaches for sustainability and resilience.	https://drive.google.com/file/d/0B2ZMawu_icvwdkhrWDU2dkt3XzA/view
Greater Mekong Sub-Region	Publication	No	• ICEM	Volume 4: Vulnerability assessment and adaptation planning guide for building Resilient Mekong towns	• Ecosystem-based Adaptation • Green infrastructure • Urban • Bioengineering • Vulnerability assessment	The vulnerability assessment and adaptation guide lays out a step-by-step process for assessing climate change impacts and vulnerabilities and for preparing and implementing adaptation plans. The guide includes templates and matrices that can be used to record data, create plans, and assist with prioritizing adaptation measures.	https://drive.google.com/file/d/0B2ZMawu_icvweWtUc2IyTnpSY00/view

Country / region	Project/ publication	Pilot measure	Institute / organization	Name	Topic/ sector	Lessons learned	Link
India	Publication	Yes	• ICEM	Volume 5: Building Urban Resilience in Battambang, Cambodia	• Ecosystem-based Adaptation • Green infrastructure • Urban • Bioengineering • Vulnerability assessment	• Climate change vulnerability assessment and adaptation planning should be mainstreamed into town wide master planning and infrastructure planning processes including the use of participatory mapping approaches. • Town master planning and zoning must include a step of overlaying past extreme climatic events and projected climate change in order to ensure appropriate boundary definition and designation, and development and design of suitable town wide and zone safeguards to ensure land uses and structures are resilient. • The town master planning should be formally adopted as a cyclical process with review and revision at least every five years and a statutory period within which the provincial and national governments must approve the plan. Adaptation planning needs to be an integral part of the master planning process. • The Core Group will be an important cross sector technical group for the town. It will act as a technical advisory group on climate change providing monitoring and evaluation to ensure that all developments consider climate change, assessing proposed infrastructure development projects and providing technical advice in the town master planning process.	https://drive.google.com/open?id=0B2ZMawu_icvwMy1lUUhlMW9Lb2c&authuser=1

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						• Community engagement at all stages of adaptation to climate change is key to its success. • Green infrastructure and bio-engineering have much to offer in building town resilience to climate change and should be activity promoted and demonstrated through formal policy commitments in the town plan and development controls and through a formal vision statement for Battambang's development. • Illegal migrant settlements and linked climate change impacts are a major issue for Battambang: The town's migrant settlements are located in some of the most vulnerable areas to climate change. Managing these settlements effectively will be vital to advancing the town's development vision and also to increasing its resilience. • There are significant opportunities to build on the project with the new Governor as mentor. • The long term presence of the embedded GIS team within the Governors master planning department also provides an important opportunity to show case Battambang and green infrastructure as a GMS wide demonstration for building climate change resilience. • When conducting participatory mapping, which is a critical part of climate change vulnerability assessment it is important to separate mapping of historical flooding caused by pooling and the flooding caused by river overtopping because these have very different flood characteristics in terms of depth, duration and impact and need different responses.	

Country / region	Project/ publication	Pilot measure	Institute / organization	Name	Topic/ sector	Lessons learned	Link
Cambodia	Project	Yes	• UNEP • Ministry of Environment (MoE)	Enhancing climate change resilience of rural communities living in protected areas of Cambodia	• Ecosystem-based Adaptation • Community Based Adaptation • Agriculture	• The involvement of high-level government staff in project activities has ensured that the project enjoys sustained political support. For instance, the Minister of Environment inaugurated the first community-run nursery established; • Activities which generate immediate tangible benefits for local communities early in the project (e.g. short-term work opportunities, construction of water supply infrastructure) encourage community participation and buy-in; • EbA interventions and selection of sites should directly respond to community requests and knowledge (for example distributing sought-after fruit trees together with indigenous tree species) to promote community ownership and encourage the participation of additional households; • It is important to include indigenous knowledge in the design and implementation of adaptation interventions. Rural communities have developed coping strategies over time, and often require only additional resources and training to convert these practices into sustainable alternative livelihood strategies; • The involvement of experienced government staff members, who have worked with target communities for several years and have earned their trust, facilitates the implementation of adaptation interventions; • Be aware of language barriers. Communities may often understand a concept, but are unaware of the technical language that may be used to describe it. For instance, certain local communities in the target CPAs already practice elements of conservation agriculture, but are completely unaware of the term; • It is valuable to include local academic institutions in the research, monitoring and evaluation of project activities.	http://addis.unep.org/projectdatabases/00884/project_general_info http://ebasouth.org/knowledge-centre/resources/casestudy/cambodia-%E2%80%93-enhancing-climate-change-resilience-rural

Country / region	Project/ publication	Pilot measure	Institute / organization	Name	Topic/ sector	Lessons learned	Link
Cambodia	Project	Yes	• UNDP • Department of Agriculture Land Management	Promoting climate-resilient water management and agricultural practices in rural Cambodia	• Agriculture • Ecosystem-based Adaptation • Water	• Accomplishing the project goal to reduce vulnerability through the promotion of climate-resilient water management and agricultural practices, requires the cooperation of the numerous ministries and provincial departments involved, as well as the participation of villagers who recognize that long-term climate risk mitigation can yield both immediate and long-term benefits.	http://www.adaptation-undp.org/projects/ldcf-cambodia http://www.adaptation-undp.org/sites/default/files/downloads/dagostinosovacool-masgc-cambodia.pdf
Cambodia	Project	Yes	• UNEP • Ministry of Environment (MoE)	Vulnerability assessment and adaptation programme for climate change within the coastal zone of Cambodia considering livelihood improvement and ecosystems	• Ecosystem-based Adaptation • Coastal Management • Vulnerability Assessment	• Unfamiliar production systems represent various unfamiliar risks, and a need of (community-based) risk coverage; • New products may require new marketing modalities, and new needs of extension services, providing coaching and backstopping, for example in connection with pest and insect attacks and livestock diseases beyond the experience of the farmers; • Even minor supplementary dry season cultivation, on small parcels of land, and using water sparingly, can improve the household incomes significantly; • The activities showed that vulnerability to climate change can be reduced, while, at the same time, introducing improved livelihoods. Solid evidence of the achievable benefits was provided by the pilot and demonstration activities. Most of the participating households experienced significant improvements of their income, in some cases by up to a factor 4-10.	https://www.thegef.org/gef/sites/thegef.org/files/documents/document/Cambodia%20-%20Vulnerability%20Assessment%20and%20Adaptation%20Programme.pdf