



Climate Justice in Ecosystem-based Adaptation

The case of Soc Trang coastal zone, Vietnam

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Abstract

Development and the unsustainable use of natural resources in the coastal zone of the Mekong Delta in Vietnam are threatening the protection function of the mangrove forests. These threats will be exacerbated by the impacts of climate change. Mangrove forest protect muddy coasts from erosion, flooding and storms thus reducing the vulnerability of people living in the coastal zone and provide co-benefits and livelihood. However, top-down approaches of mangrove protection were not successful due to governance issues between the stakeholder groups.

The project 'Management of Natural Resources in the Coastal Zone of Soc Trang Province, Viet Nam' (2007–2013) opted for a participatory, inclusive management approach for mangrove conservation and rehabilitation as a form of ecosystem-based adaptation (EbA). Under this co-management approach, the local population actively participated in managing the mangroves and in using forest products sustainably. The process started with stakeholder consultations and the organisation of a partnership between the community and local authorities. Subsequently, co-management plans and agreements were negotiated and agreed upon. Joint monitoring and evaluation of the process and results guided the implementation of co-management. This participatory approach proved to be a precondition for the project's effectiveness.

Climate Justice and EbA

The case of Vietnam/Soc Trang illustrates the importance of climate justice as a precondition for successfully and sustainably protecting mangrove forests. As mentioned, mangrove forests protect the coast and people from storms and flooding. Additionally, the ecosystem provides other co-benefits, like the increase of income through fisheries by providing nursery grounds, food, shelter and habitat for a wide range of aquatic species. The case highlights how a justice-based implementation approach strengthened the equal participation and benefits of a co-management approach, which actively promoted different dimensions of climate justice.



Climate Justice is about recognising social differences



Recognition justice: Justice-based EbA is rooted in Indigenous, local, traditional and diverse knowledge, and recognises the different cultural values of ecosystems. It actively promotes the recognition of Indigenous Peoples and local communities as well as particular groups, such as women, youth, people with disabilities, LGBTQS2+ and underrepresented groups, as key stakeholders in EbA projects. It accounts for their distinct rights over natural resources, based on human rights principles and the specific rights of Indigenous Peoples.

Procedural justice: Justice-based EbA includes creating an open, fair and inclusive governance structure, and integrating existing human rights procedures into planning, implementation, and monitoring & evaluation of EbA projects. It grants access to information on projects and ecosystems to all stakeholders. It enhances their ability to organise and influence rules on ecosystem use through effective and meaningful participation. It ensures that individuals and communities have effective access to complaints and grievance mechanisms or other legal procedures.

Distributive justice: Justice-based EbA ensures equitable and fair climate change policies and projects that protect individuals and communities from the loss of their land and livelihoods, and generate benefits for all affected stakeholders and rightsholders. It offers equitable compensation mechanisms for any losses or negative effects on land, resource access or livelihood opportunities in surrounding ecosystems impacted by the execution of EbA.

Climate Justice in EbA involves a clear accounting for the distinct and specific sets of rights of people of all genders, classes and ages, including distinct peoples and traditional communities, as part of human rights principles. It ensures equitable and fair climate change policies and projects focused on the use of ecosystem-based approaches for adaptation that are non-discriminatory, transparent, accountable and meaning-fully participatory in their design and execution.

Key elements of climate justice in EbA include integrating and recognising human rights principles and the specific rights of Indigenous Peoples. Climate Justice in EbA builds on an understanding of social dynamics and vulnerabilities on the ground, and examines the local situation through a cross-sectoral approach. The approach values Indigenous and local knowledge, and recognises different cultural values.

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Background

Vietnam's Mekong Delta serves as the 'rice bowl' for the whole country. The expansion of shrimp farming in this region has contributed to economic growth and poverty reduction but has also given rise to negative environmental and social impacts. The lack of an integrated approach to the management, sustainable use and protection of the coastal zone, together with economic interests around shrimp farming, have led to unsustainable natural resource use. This, in turn, threatens the mangrove forest belt, undermining its ability to protect against storms, flooding and coastal erosion. Climate change impacts exacerbate the threat, particularly through more intense and frequent storms and floods as well as sea level rise (Schmitt and Albers, 2014).

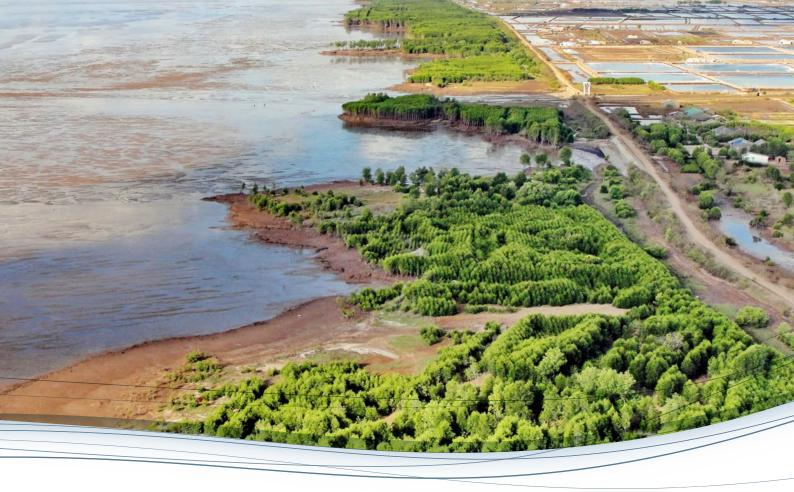
Soc Trang is one of 13 provinces in the Mekong Delta region. The province has a total area of 331,176 ha, with about 62% used for agriculture, just over 3% for forestry and more than 16% for aquaculture. The province has a population of about 1.2 million people, of whom about 29% are Khmer and 6% ethnic Chinese (figures as of 2019, General Statistics Office of Vietnam), with the Khmer being the most vulnerable. The Vietnamese government has restricted the practice of their religion and use of their language, and public denunciation of such discrimination has sometimes been met with violence. Socially and politically, the Khmer have had little involvement in decision-making and have also suffered from economic marginalisation (Human Rights Watch, 2009). Most of the Khmer people live in front of the dykes, where mangroves are their only protection from storms and floods. In addition, traditional livelihoods depend on collecting shellfish, fish and firewood in the mangrove fosters. Large numbers of landless people belong to this ethnic minority (Lloyd, 2010).

The 72-km coastline of Soc Trang is characterized by a dynamic process of accretion and erosion. In some areas, the loss of land due to erosion has been recorded at up to 30 meter per year, whilst in other areas, land accretion can reach up to 64 meter per year (Schmitt and Albers, 2014).

The project 'Management of Natural Resources in the Coastal Zone of Soc Trang Province, Viet Nam', with funding from the German Federal Ministry of Economic Cooperation and Development (BMZ), was implemented by the Deutsche Gesellschaft für Internationale Zusammenarbeit, (GIZ) GmbH from 2007 to 2013. The project aimed to protect and promote sustainable use of coastal wetlands for the benefit of the local population through mangrove rehabilitation and management, with emphasis on resilience to climate change impacts and disasters as a form of EbA.

In the coastal zone of Soc Trang, mangrove restoration has been carried out since 1993. Early efforts relied on mangrove protection forests, managed by the Department of Agriculture and Rural Development (DARD), to serve as a first line of defence against storms and waves. Starting with reforestation, these efforts mostly failed due to weak technical implementation and a lack of protective measures. In response, Kiem Lam (forest rangers) under DARD patrolled the area to stop illegal activities. Since mangroves were recognised as protected areas, forest use was strictly prohibited. Harsh sanctions gave rise to conflicts with coastal communities - particularly marginalised and landless groups of Khmer people - who depend on the use of forest products for their livelihood. Corruption and land grabbing, through which influential people expanded aquaculture or agriculture, increased the destruction of mangrove forests.

Between 2000 and 2007, the government, supported by the World Bank, fostered mangrove protection and management in Soc Trang through forest protection contracts and forest land allocation along the coast. Small plots of land were allocated to individual farmers, and protection contracts offered payments of about US\$3 per hectare per year. This approach proved ineffective, however. The amount paid per hectare per year was insufficient to engage people actively in forest protection and instead encouraged them to earn income by cutting down the forest for fuelwood. GIZ and the government concluded that relying on individual ownership of small forest plots was not effective for protecting a narrow belt of mangroves (Schmitt, 2012).



Co-management as a form of justice-based EbA

In place of top-down approaches to mangrove protection, the project piloted an alternative for mangrove management in the village of Au Tho B in Soc Trang Province. Larger forest areas there are managed jointly through a co-management agreement between local communities and authorities.

Under the partnership agreement, resource user groups have the right to use natural resources sustainably on a defined area of state-owned land (protection forest). But they are also held responsible for managing and protecting those resources. This was the first time in Vietnam that people had received official approval to use mangrove resources.

Co-management is based on participatory negotiation, joint decision-making, some degree of power sharing and fair distribution of benefits amongst all stakeholders, who share responsibility and authority for managing a given area with a defined set of natural resources (Borrini-Feyerabend et al., 2004, 2007).

The co-management process was organised in four phases:

- 1. Consultation and organisation of the partnership (year 1)
- Negotiation of co-management plans and agreements (years 1 and 2)
- 3. Implementation (years 2 to 7)
- 4. Monitoring and evaluation (years 2 to 7), which led to revision of plans and agreements

PHASE 1

Consultation and organisation of the partnership

The first phase focused on getting the marginalised local population on board with the process and putting them in a position to participate actively (**recognition justice**). For this purpose, it was important to obtain all stakeholders' **acceptance** of the decision to pilot the co-management process. **Capacity building** was also begun for local authorities at the provincial and district levels. Once the pilot area was selected, **surveys** were conducted on the different users, their practices and knowledge of natural resource use, and the socio-economic conditions of the local population to create a solid set of data for co-management. On this basis, the project **consulted** the local population and authorities, and introduced them to co-management. Several meetings were organised in the communities, and local champions were identified to act as 'door openers' for the project.

PHASE 2

Negotiating co-management plans and agreements

This phase focused on two major aspects of climate justice: (1) how to organise the process with different stakeholders (procedural justice) and (2) how to distribute the benefits and burdens or restrictions of co-management, and find a balance between the protective function of the mangroves and production benefits (distributive justice). Out of the 736 households in Au Tho B village, a total of 240 resource user households were identified as being interested in forming a so-called resource user group. The group was divided in 6 sub-groups for more effective participation of the members. The group was set up formally, and its members capacitated in sustainable resource use as well as joint decision-making and leadership. A pluralistic governance **body** for joint decision-making, the co-management board, was formed for effective implementation of co-management in a defined area. The head and six sub-group leaders represented the resource user group on the board. Local authorities were represented by commune, district and provincial level representatives. Commune representatives included the Commune People's Committee chair, the Au Tho B village chief, and representatives from the farmers' and women's unions.

At the district and provincial levels, representatives of the state administration and technical departments (fisheries, forest and environment) took part. Local administration headed the board, which made all decisions through majority rule. The resource user group and local authorities engaged in negotiations to agree upon acceptable ways of jointly and sustainably managing natural resources within the mangrove forest areas, whilst protecting the integrity of the mangrove belt. After 12 negotiation meetings, the resource user group and local government signed a resource use plan and agreement. The agreement specifies the 'six Ws': who can do what, where, when, how and how much. The mangrove forest area under co-management was divided into zones, in which different management regimes were applied. Zoning allows areas to be set aside for particular activities, such as protection of key habitats, designation of nursery areas/breeding sites and resource use (see Figure 1). The zones were identified jointly during the negotiations, taking into consideration scientific studies, and specific rules were defined for each zone. During the negotiations, the project carried out capacity-building through training for leaders from the resource users and staff of local authorities to implement the plans and agreements (Lloyd, 2010; Schmitt, 2012).

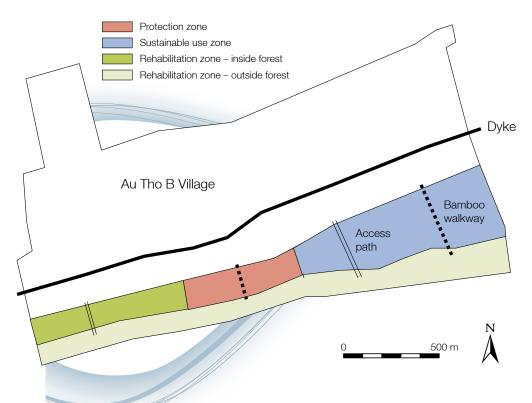


Figure 1: Mangrove management zones in Au Tho B Village, Soc Trang, Viet Nam (Schmitt, 2012)

PHASE 3

Implementation of the co-management agreement

Environmental awareness-raising, a shared understanding of the agreement and effective communication between stakeholders are all prerequisites for successful implementation of co-management. This process was undertaken in a participatory manner involving all stakeholders. The co-management board constituted the core decision-making structure, with responsibility for overall steering and conflict resolution. This structure fostered transparent, fair and informed decision-making (procedural justice). The core activities involved in co-managing the area consisted of monthly board meetings, which monitored progress in implementing the management plan, whilst also discussing conflicts and agreeing on solutions. The local administration convened these meetings, which the project co-hosted until 2013. Activities implemented by the project comprised, amongst others, marking zone boundaries, disseminating information to members and non-members of the resource user group, capacity building for leaders/authorities, introducing more efficient wood burning stoves, and building bamboo walkways to avoid forest disturbance.

PHASE 4

Monitoring and evaluation

The co-management board assessed project experiences and used lessons learnt to improve the intervention. It analysed monitoring data to assess the sustainability of the resource harvest. Data were gathered through participatory resource-use monitoring, which the resource users carried out monthly, with men and women contributing equally. They used a simple, picture-based resource use monitoring sheet to record the time required for collecting a fixed amount of dry wood, crab, snails and other marine resources. The shorter the time it takes to collect these resources, the richer their presence in the area. This information provided indications of overexploitation and of sustainable resource collection. The project analysed this information, which enabled the co-management board to make informed decisions on adaptive management and protection of the mangrove forest (distributive justice).

The first **review** of the agreement, including the zoning plan, took place after 20 months of implementation. The monitoring approach was designed in such a way as to ensure sustainability through simple data collection protocols, easy data entry using mobile phones and data storage, and analysis and report production with a user-friendly, custom-made database programme. This enabled members of the resource user groups to see the usefulness of the effort they put into completing the monitoring sheets. And in turn, encouraged them to keep engaged with the monitoring practice. The locally adapted design of the monitoring approach also ensured regular reporting of monitoring results to all key stakeholders via group meetings.





Results of the co-management approach

- → The mangrove forest area increased from 70 ha in 2008 to about 280 ha in 2020 without any tree planting – just through effective conservation. The main reason for this was a strong sense of ownership of the approach by resource users.
- The increased area, in turn, protected the coast more effectively from erosion, flooding and storms, whilst also increasing income from sustainable use of mangrove forest resources as well as from fishery.
- After the close of the project, the participatory processes (i.e., consultation and exchange of ideas amongst stakeholders) decreased in quantity and quality, indicating that co-management was not yet fully institutionalised. The government continued to play key roles in all aspects of mangrove forest management, especially in decisionmaking related to resources, and has not empowered the co-management board through regular support or capacity building. Nonetheless, there is still much more interaction between the government and resource users than before.

Since we started co-management, we are very happy, because our daily income has increased; we benefit now from about VND 50,000–60,000 [US\$ 4–5] per day. (Villager in BBC interview, 2011)

- Resource use rules and regulations for access (zonation, time restrictions and number of people) together with the use of regulated fishing tools increased the abundance of aquatic resources and the resulting income from sales, whilst also improving the structure and integrity of the mangrove forest.
- The common process also led to better collaboration between local people and authorities.
- After 2013, the Integrated Coastal Management Programme (2011–2018) continued and upscaled the co-management approach at three sites in Soc Trang and one in the Ca Mau Cape National Park. However, the institutionalisation of power sharing between the government and local population continued to pose challenges.

Before we were afraid of forest rangers; now we are working together – and there are fewer outsiders entering our area. (Villager in BBC interview, 2011)

Lessons learnt on addressing justice issues

- → Addressing justice issues via co-management helps achieve a balance between improving the livelihoods of poor local people, on the one hand, whilst maintaining and enhancing the protection function of the mangrove forest belt, on the other. Sustainable results entail better livelihoods as well as intact ecosystems.
- → To address justice issues, it proved necessary to tackle the underlying socio-economic and political causes of vulnerability. These include poor governance, inequitable resource control and access, limited access to basic services and information, discrimination, and other social injustices.
- → Empowerment of all vulnerable groups (including women, the elderly and children) is essential for promoting a rights-based approach. Awareness raising, capacity development, meaningful participation in decision-making and the establishment of benefit-sharing mechanisms are therefore important features of justice-based EbA projects.

- → Sustainable mangrove conservation also requires enabling conditions, such as grounding mangrove conservation projects in local knowledge and leadership.
- → Policies, sectoral development approaches and national development goals for natural resource management should all take into account justice issues, since improved governance is a key prerequisite for sustainable protection of natural resources.
- To sustain the co-management approach requires that power sharing as well as decision-making processes and structures be institutionalised in laws, decrees and the standard operating procedures of the institutions involved.



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Disclaimer

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The Global Project 'Mainstreaming Ecosystem-based Adaptation', implemented by GIZ, has prepared, bundled and shared knowledge around Ecosystem-based Adaptation (EbA) since 2015. Its goal is to strengthen the ability of decision-makers and practitioners at the international, national, and local levels to mainstream EbA into policy and planning processes. This involves a mix of policy advice, capacity development and the establishment of knowledge networks based on practical tools and examples.

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