



**CCWG**

## Effective Community-based Mangrove Management in Responding to Climate Change

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### **Organized by**

*the Vietnam Climate Change Working Group (CCWG), in association with the  
Network of Vietnamese NGOs on Climate Change (VNGO&CC) and the  
Department of Hydrology, Meteorology and Climate Change - Ministry of Natural  
Resource and Environment (DHMCC - MONRE)*

### **WORKSHOP MINUTES**

#### **1) INTRODUCTION/WORKSHOP OPENING**

**Mr Pham Van Tan (MONRE)** welcomes everyone to workshop and emphasizes the significance of climate change and the relevant impacts on sustainable development. The speaker highlighted the need for developing an effective strategy on green growth and environmental conservation based on innovative solutions and proposals that continue to be proposed, including experiences from other countries and new research findings. Efforts by the government alone are insufficient and it is important to encourage the involvement of other stakeholders such as NGOs and private sector. The conservation of mangrove ecosystems is significant for sustainable fauna and flora management and for climate change adaptation, since mangroves have an important function in protecting against flood and storms that in recent year had devastating impacts on Vietnam. To protect and restore mangrove ecosystems in Vietnam the roles of different stakeholders have to be deciphered for the development and implementation of the most effective models.

**Claudia Futterknecht** (*Country Director of CARE*) introduced the role of mangrove ecosystems in climate change adaptation and mitigation. Mangroves act as important carbon sinks, buffers against storms and protect livelihoods. Although the government of Vietnam has recognized the role of mangroves and the need for effective conservation, mangroves continue to be destroyed. This workshop provides NGOs and the government with a good opportunity to share experiences and to promote the role of different stakeholders. Ms Futterknecht wished all participants a successful workshop and effective follow-up actions.

**Thu Thi Ho Yen** (*MCD Deputy Director*) introduced the mangrove network which has been set up to respond to climate change. Since its establishment the mangrove network has become a forum for dialogue and dissemination of experiences. Climate change mitigation and adaptation efforts have been importantly supported by a successful cooperation between government and NGOs. This cooperation needs to be enforced since Vietnam's coastal population density is very high and climate change effects are very serious. The successful conservation of mangrove forests increases the resilience of coastal communities to climate change, while also creating economic development opportunities. Although in selected provinces of Vietnam mangrove cover has increased in recent years, only 200,000 ha of mangrove forest remains in Vietnam. Currently implementation mechanism haven not been institutionalized and success of projects vary. Ms Tu highlighted that it is essential for all stakeholders to work in synergy in order to protect and enhance the remaining extent of mangrove ecosystems.

## 2) Legal And Institutional Frameworks on Mangrove Development and NGO's Good Practices

Presentation by **Mr Nguyen Quoc Dung** (MARD): *Development of mangrove forests (up to 2020) in Vietnam and institutional frameworks on community management of mangroves*

- Mr Nguyen provided an overview of the current status of mangrove development in Vietnam. Vietnam ranks 3<sup>rd</sup> or 4<sup>th</sup> on the list of countries with the largest area of mangroves in the world, and is the country with the largest extent of mangrove ecosystems in Asia. Remaining mangrove cover is concentrated in the Mekong and Red River Deltas, where population density is high and people affect mangroves and are affected by mangroves. The Mekong Delta harbors 130,000 ha of mangrove ecosystems. Threats towards mangroves are very serious and currently only few communes remain that are not affected by seawater infiltration. The Vietnamese government is particularly concerned to protect people living in coastal areas.
- Current management plans for mangroves ecosystems incorporate mangroves as special use forest, protection forest and production forest. Management plans have to acknowledge the diverse role of mangroves, including the significance of mangroves for dyke protection and livelihood enhancement through aquaculture. Coastal systems and freshwater ecosystems are

affected by mangroves, since mangroves protect river mouths. Despite of mangroves being significant in Vietnam's response to climate change, not enough attention is paid to mangroves in policies. It is important to change policies to include mangroves in protection forest and to find a balance between protection and production. Currently an approximate 100,000 ha of mangrove forest is classified as protection forest, 28,000 ha as special use forest and 65,000 ha as production forest.

- Mangroves are experiencing a declining trend and cover has decreased by half since 1943. Mangrove cover has increased in some selected northern provinces due to mangroves being used to protect dykes and to create adaptive livelihood models. Major factors for mangrove degradation include erosion, typhoons and resulting wave action and landslides, pollution, destruction for aquaculture, in addition to inappropriate policies.
- Mangrove Planning: In June 2006 the condition and situation of mangrove ecosystems was reviewed and a master plan 2008 - 2015 approved. The current area of coastal wetland under planning includes 323,000 ha with the possible extended future area of mangrove cover being 280,000. By 2020 the objective is to increase national mangrove cover by 30,000 ha, which would equal the extent of mangroves in 1982. A future increase in mangrove area would demand an enlargement of the protection forest (through reforestation), an extension of the production forest and effective management of all remaining mangrove ecosystems.
- Mr Nguyen explains the roles of stakeholders in mangrove forest management: Special use forest is managed by State Management boards. Large areas of Protection Forests are managed by State Management boards and smaller areas are contracted to communities or households. Production Forest lands are allocated to households.
- Roles of communities in mangrove policies and mangrove management: The government is relying on communities for mangrove protection and management, while only 50% of mangrove area is officially allocated to communities for management. People benefit extensively from mangroves and are directly suffering from climate change.
- Policies: Different forest laws are applicable to mangroves (Forest Management Law and Biodiversity Law). However, currently there are no specific policies for mangroves. The convention on RAMSAR wetlands is an example of an effective non-rigid management policy. Mr. Nguyen concluded that current policies are totally inappropriate and there is a clear need for community-based forest management.

Presentation by **Mr Nguyen Viet Nghi** (CARE INTERNATIONAL): *Community – based mangrove plantation and management – an effective way of mangrove management*

- Mr Nguyen introduced a project in Nga Thuy commune of Nga Son district and Da Loc Commune in Hau Loc district, Thanh Hoa: The overall project goal is community-based disaster mitigation and preparation, and to support local people to develop better mangrove management strategies.

- The project's success is based on handing over mangrove management rights to communities. The community is involved in the whole process of mangrove management planning, and has contributed to the development of appropriate regulations on mangrove management. The rules and regulations are monitored by authorities.
- The project incorporates communication campaigning and involves the youth. Key communicators are members from different mass organizations such as women's unions and youth unions. Local people take ownership of mangrove seedling planting which entails the maintenance of three nursery gardens for seedling production and the protection of young stems.
- Lessons learnt: Local people are important stakeholders and should be involved in government planning decisions. It is essential to mobilize participations from communities and socio-political organizations, and to set up technical groups.

Presentation by **Ms Tran Thi Hoa (MCD): *Mangroves in supporting sustainable livelihoods in coastal areas***

- Ms Tran emphasized the high population density and concentration of poor people in coastal areas, in addition to a high dependence on mangrove ecosystems. Services provided by mangroves include the following: Firewood, Herbs, Tannin, Eco-tourism, and Fisheries. In northern Vietnam the income provided by mangroves typically varies from 35-50% of total income, in the South it amounts to up to 67 % of total income.
- Ms Tran provided an example of mangrove management from Xuan Thuy NP. Funded by Denmark, 5,000 ha of mangroves have been re-forested, and the current extent of mangrove area is 17,000 ha. The project works together with the community as part of a resource co-management pilot programme. This is based on an agreement between households, the national park authority and the People's committee. A formal contract has been developed and a community management board created. The project is based on the consensus of different stakeholders and has resulted in effective collaboration and information-sharing, in addition to the technical training of local people.
- MCD's project In Phu Long, Hai Phong, has successfully restored 700 ha of mangroves, and Cat Ba National Park allows households to manage forests with a support fee. This has assisted the development of shrimp farming and sustainable mangrove management, in addition to awareness-raising on mangrove protection. An aquaculture model supports people to benefit from mangrove ecosystems and to take advantage of ecosystem services. A strong co-ordination with government agencies and MCD will facilitate further success of the model and lead to benefits for both people and mangrove ecosystems.

## Questions and Answers:

**Q:** Why only women taking part in activities?

**A:** Women are more skilful in forest management and better suited. Transportation and other hard labour work are performed by men.

**Q:** Livelihood depends on mangroves. How is ecotourism, aquaculture controlled?

**A:** Livelihoods are supported by NGOs. NGOs help people to make livelihoods more sustainable.

**Q:** What are the most appropriate mechanisms in managing collaboration with the community? Is a support fee feasible?

**A:** MCD has had relevant discussion with the government and has agreed to have people pay for exploiting mangroves.

**Q:** How to extent re-forested mangrove area?

**A:** Mangrove protection is supplemented through sustainable management.

**Q:** How to protect mangroves from over-exploitation in Cat Ba National Park?

**A:** The Park's core is under National Park management and management can thus not be influenced by MCD.

**Q:** Are any village rules established for mangrove management?

**A:** Villagers developed rules/regulations for commune authorities. EG: Not allowed to raise ducks in young (5 years) mangrove forests.

### 3) DISCUSSION SESSION: Thanh Hoa, Nam Dinh, Kien Giang: Provincial sharing on challenges with allocation of mangroves in communities and how NGOs can support

- **Member of commune management board** explained the concept of plan and highlighted the importance of asking locals to take part in the management plan development. Models do not work when not communicated with local people. The plan has prevented property damage caused by storms and has supported organic fertilizer production, leading to reduced spending on fertilizers. The project also provides guidance to neighboring villagers on fertilizer production and usage, in addition to supporting duck-raising and relevant livelihood benefits. Primary and secondary schools have been involved in communication campaigns on climate change impacts. The commune member raised her concerns about mangrove management being difficult after project termination and the need for support from local authorities.
- **Network member from Haiphong Province** stated that the current mangrove area in Haiphong is 24,000ha, with 50% of the area being reforested ecosystems and a part being aquaculture. The coastal area for mangrove development is quite modest. Current plans aim at 8,200ha of mangroves in Haiphong by 2020, based on an annual increase by 20-30%. Responsibilities are delegated to district and commune authorities. Commune authorities take care of non-allocated areas, while forests are generally taken care of by local people. All local people get access to government

support and community-based management of mangroves is an important aspect. Management challenges are that mangrove forests are very fragmented and it is thus difficult to allocated large areas to individual household. Forest protection enforcement is not effective if livelihoods are not supported and benefits from mangrove forests have to be available to the entire community.

- **Member from Red Cross Disaster Mitigation Project** explained a large reforestation project spanning across 8 provinces in the north. Reforestation and protection of seedlings is very costly, and typically 12,000,000 VN Dong are needed to grow 1ha of mangrove forest. However, the benefits of mangroves are extremely high, which justifies this substantial investment. Red Cross Denmark and Japan have donated US\$ 2 million for this project that terminates in 2015. The financial benefits of dyke protection have been estimated to amount to US\$ 295,000 per commune. The financial benefits from green house gases absorption are estimated to be US\$ 218 million. The speaker highlighted the importance of working together with the local government to find solutions on where and how to plant mangroves. Mangrove protection and economic development go hand in hand and it is necessary for the government to make commitments to sustain the current extent of mangroves. A good monitoring regime of mangrove development is also needed. Negative recent development examples are the Haiphong port development that destroyed a large extent of mangrove area and dyke construction projects that destroyed mangroves. At this stage there are no further funding sources beyond 2015, and without external support/foreign aid it will be impossible to continue activities. Information sharing is thus very important, as is effective lobbying and advocacy.

#### 4) PANEL DISCUSSION

**Panelists:** Dr Klaus Schmitt (GIZ), MsBa Bui Thi Din (Community based management Thanh Hoa), Mr Pham van Tan (MONRE), Ms Yen (CARE), Mr Dung Quoc Nguyen (MARD)

**Comment from GIZ:** Mangrove maintenance is very important and planning has to take into account existing forest while increasing area through plantations. Without a solid plan that is based on a long-term vision it is not possible to manage forests in a sustainable manner.

**Question for MONRE:** There seem to be discrepancies in data – Have projections of existing mangrove area been verified? How feasible are future targeted mangrove areas since there are no explicit regulations and policies on sustainable mangrove management?

**Answer from MONRE:** There are no separate policies for mangroves and implementations have exposed some shortcomings. MARD is implementing new policies and collaborates with relevant government officials and community members to implement these policies. Policies are currently being developed and should be finalized by the end of the year. New policies have to be balanced with existing policies. GIZ has supported MONRE to create a development and management plan.

**Participant comments** on the current Status of Mangroves:

- The need to focus on the quality of mangrove forest, not just quantity has to be acknowledged.

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- Economic development has to be embedded into successful management.
- Opportunities for different tree species plantations exist.
- Mangrove forest management at times governed by local authorities, other agencies or communities. Some communities have not received land use certificates.
- Mangroves are frequently over-used for production. One household can use 40% of mangrove area and remaining 60% should be protected.
- Reforestation investment needs depend on particular locations, and this has to be accounted for in policy development.
- It is important to encourage private sector and community to invest in mangrove afforestation.
- Through current advocacy and pilot projects future mangrove management can be supported.
- Regarding government funding for reforestation it is difficult to consider mangroves in the forestry sector context.
- Priorities for mangrove management should be protection and co-management to encourage sustainable livelihoods.
- Climate-Change response policies should avoid regulations that are not sustainable in the long-term. A relevant forum on climate change response has been established with international donors. Evaluations of current strategies are performed each year. This forum is there to ensure sustainability of implemented policies. Comment and feedback of CSOs are important for 1 and 5-year plans. Government would like input into policies and the development of a monitoring and evaluation framework.

**Question to GIZ:** Empowerment to the people: What about community members and how to guarantee that outsiders are not benefiting to the same extent?

**Answer from GIZ:** Enable local people through a representative to negotiate with authorities. Giving people a role and responsibility will lead to sense of ownership and change governance from confrontation to collaboration.

**Dr Klaus Schmitt (GIZ)** briefly introduces the concept of co-management: Co-management is very different from community-based management. A group of people manages resources together in shared governance with local authorities. The GIZ mangrove co-management model focuses on sub-groups of communities that depend on mangroves. A co-management group is elected and a leader elected who represents the group. This representative meets with authorities and communicates the results from meetings to the group. This approach subdivides household groups into manageable groups that can meet effectively.

**Ms Yen Thi Nguyen (CARE)** highlights the need to share experiences when formulating policies. NGOs have gained extensive experience on how to engage with communities and mobilize communities. The government should therefore design a structure to policy development that enables NGOs to contribute effectively. CARE has extensive experience with climate change and livelihood support. NGOs and CARE would like to advocate for an integrative approach.

**Mrs Din from Thanh Hoa Province** raises the importance of mangroves for disaster protection and income source. The payment for communities protecting mangroves should thus be increased.

## 5) Enhancing Community Involvement in Mangrove Management

Presentation by **Dr Klaus Schmitt** (GIZ): *Mangrove programs and the role of communities*

- Dr Schmitt introduced a mangrove co-management project implemented by the GIZ from 03/2007 – 12/2013 ([www.czm-soctrang.org.vn](http://www.czm-soctrang.org.vn)). The project involves local communities into mangrove management, and the project area is located on a dynamic coastline that is driven by the discharge regime of the Mekong Delta, long-shore currents and the tidal regime.
- Current threats to the coastline include high-intensity storms that have increased in frequency and severity due to climate change increase severity of climate change. Development and unsustainable resource use is threatening the remaining belt of forests, and impacts of climate change further jeopardize mangrove persistence.
- There is a need for integrated adaptation strategies based on ecosystem processes, and a viable long-term site-adaptation strategy includes a diverse and site-specific range of approaches. Such an Ecosystem Approach can help protect people from Climate Change disasters and improve livelihoods.
- Mangroves are ecologically significant and store up to 50 times more carbon by area than tropical forests. About 75 % of all tropical commercial fish species spend part of their lives in mangroves, and mangroves provide opportunities for alternative (wave/tidal) energy generation.
- Mangroves provide surface elevation between 1mm/yr to 10 mm/yr and rates depend largely on external sediment inputs and the growth of subsurface roots. Mangroves alone at times are sufficient to counter-act climate change.
- Effective mangrove management, rehabilitation and protection with emphasis on resilience to climate change are needed. Planting alone is of little use, but mangroves need to be effectively managed. This requires capacity-building and effective communication.
- The best approach is integrated, not sector-specific, is ecosystem-based and involves all stakeholders while allowing for adaptive management.
- In the past land allocation and forest protection contracts did not work in a setting with no community input.
- Dr Schmitt explains different levels of management. *State Management*: Control by government agency. *Co-management*: Shared control government between agency and stakeholders, negotiating specific agreements and sharing responsibility and authority in a formal way. *Community Management*: Community Control, transferring authority and responsibility to communities/households (green/red book).



- Governance should be shared. Co-management is based on shared governance between communities and local authorities and is reflected in joint management practices. Community forestry is different to co-management and typically focuses on silviculture and the management of allocated forest land with the role of government reduced to that of a technical advisor. Co-management in contrast implies shared governance and management.
- In GIZ project land is owned by the government, while decision-making processes are shared with the community. The main aim of project is protection, not production. Local authorities negotiate through a participatory process that leads to a formal agreement. A pluralistic governance body is established in this co-management approach. Co-management is based on negotiation, joint decision-making, power-sharing and fair distributions of benefits among all stakeholders. Participation is the most crucial aspect of co-management.
- Dr Schmitt introduces the Zonation concept of the project that consists of Sub-groups and management zones and includes a Rehabilitation Zone, Protection Zone and Sustainable Use Zone, with different rules applying for each zone. Local people have come up with rules for ecosystem use for the respective zones and have recognized that a larger supply of the resource through protection eventually leads to greater income.

## Questions and Answers

**Question:** How to assign a monetary value to mangroves/how to evaluate success of project? How to calculate benefits for fisheries?

**Answer:** People were consulted on how the process of obtaining resources has changed. An increase in resources as the result of the zonation concept has led to an average increase of 50-60,000 VN Dong a day for families. The amount harvested and harvest effort provides a clear indication about the adequacy of the project. *N.B.* Representatives from different interest organizations are appointed for any conflict resolution.

**Question:** In relation to project sustainability: How are project's benefits sustained in the future?

**Answer:** Funding will be provided from the Payment of Ecosystem Services (PES) and participatory land use management (PLUM) cooperative that has agreed to cover operational costs of Co-management.

**Concluding Remark by GIZ:** As result of this project, many initiatives in Vietnam are carrying out studies on co-management. Studies have resulted in the development of a co-management policy that will be put forward next year.

## 6) Group Discussion

**Group 1:** Related to policies: what policies will enhance the role of community? (Chaired by CARE)

**Discussion Findings:**

- Without policies sustainable development practices cannot be implemented effectively. Additional policies are needed. Recommendations from NGOs are crucial for the formulation of policies. Vietnam has lots of policies but implementation of policies is often a problem. Vietnam should have a policy framework for mangrove forest. Planning should be institutionalized and there is the need for a mechanism that enables NGOs to create good inputs.
- To strengthen co-management: Forest land is allocated but allocation is only temporary, and we need long-term policies on forest governance. Co-management techniques should be further tested and appropriate policies institutionalized.
- Payment of ecosystem services: People managing upland forests get payment but people managing mangroves don't get any payment yet.

**Group 2:** How to replicate NGOs good lessons and models on sustainable management and good livelihood models? How to incorporate good models into government policies? (Chaired by MCD)

**Discussion Findings:**

- Share the information and introduce models in different localities to identify similarities and differences. Encourage mass organizations to share models. Share models at workshops and meetings. Sharing experiences will help the effective communication of good models.
- How to include good practices in government policies: To invite government officials in all stages of project planning and implementation will assist this process, and NGOs should be proactive to embed models in advocacy. NGOs should also effectively explain models and encourage policy makers to adapt models.
- NGOs have already gained experience with sharing good practices and models among each other through networks etc. Good models can be adapted and tailored to specific requirements of the locality.

**Group 3:** How to enhance the role and effective involvement of the community? (Chaired by SPRCC)

**Discussion Findings:**

- Sustainable livelihood models and current progress: This workshop only introduced two models but there many more sustainable livelihood options and a variety of projects are currently piloting relevant models.
- To consult the community effectively it is essential to identify all users of the concerned resource and strategically involve community decision-maker in order to obtain the input from representative community groups that effectively voice the needs and concerns of all community members. The problem on how to involve people who don't own any land has to be appropriately addressed.
- Projects should prioritize the development of models that can be implemented and don't have negative impacts. The exploitation of non-timber products should be encouraged, and people

should be allowed to harvest non-timber products. Similarly, there should be a mechanism in place to punish people who don't do the right thing.