Mangroves for the Future
INVESTING IN COASTAL ECOSYSTEMS

MANGROVES FOR THE FUTURE PHASE III

National Strategic Action Plan (2015–2018)

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[1] This NSAP is based on and updated from the NSAP for 2010-2014, which was managed by the national MFF coordination body (NCB).

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ABBREVIATION

AFOLU	Agriculture, Forestry and Other Land Uses
APD	Avoiding Planned Deforestation
A/R-CDM	Afforestation/Reforestation - Clean Development Mechanism
ARR	Afforestation, Reforestation and Vegetation
AUMDD	Avoiding Unplanned Mosaic Deforestation and Degradation
CBO	Community-Based Organization
CFM	Community Forestry Management
DBSCL	Mekong Delta
FIPI	Forest Inventory and Planning Institute
GoV	Government of Vietnam
ICM	Integrated Coastal Management
IUCN	International Union for the Conservation of Nature
LGF	Large Grants Facility
MARD	Ministry of Agriculture and Rural Development
MGF	Medium Grants Facility
MFF	Mangroves for the Future
MONRE	Ministry of Natural Resources and Environment
MPA	Marine Protected Area
NCB	National Coordinating Body
NGO	Non-Governmental Organisation
NSAP	National Strategic Action Plan
NTFP	Non-Timber Forest Product
ODA	Official Development Assistance
PEMSEA	Partnerships in Environmental Management for the Seas of East Asia

PFES	Payment for Forest Ecosystem Services
PoW	Programme of Work
REDD	Reduced Emissions from Deforestation and Degradation
SDS-SEA	Sustainable Development Strategy for the Seas of East Asia
SGF	Small Grants Facility
SLR	Sea Level Rise
SUF	Special-Use Forest
VASI	Vietnam Administration of Seas and Islands
VCS	Voluntary Carbon Standards

SUMMARY

The purpose of this National Strategic Action Plan (NSAP) is to assist Mangroves for the Future (MFF) in identifying, designing, and planning activities in Vietnam in Phase III (2015–2018). The NSAP will provide strategic direction for this phase based on experience gained and lessons learnt during Phase II. The Vietnam MFF annual operational plan will be developed on the basis of this NSAP.

During Phase II, the NSAP supported the MFF National Coordinating Body (NCB) to effectively operate and execute the MFF programme in Vietnam. This NSAP was reviewed and updated to take advantage of new opportunities for conservation, restoration and sustainable management of coastal ecosystems in Vietnam and throughout the region.

In Vietnam, MFF will focus on coastal ecosystems, especially mangroves, which are seen as a priority for the important range of ecosystem services they provided to humans. MFF will operate at two geographic scales, working across the country, as well as implementing pilot sites at the local level. The NSAP does not recommend specific provinces, but presents criteria for consideration in identifying sites and prioritizing site-based activities.

The first half of this document identifies key issues related to coastal resources management and coastal ecosystems in Vietnam; national policies, plans, and programmes (PPPs) and lessons learnt from Phase II, with special focus on current gaps. The second half briefly presents strategic entry points for MFF in Vietnam, starting with opportunities to mainstream MFF into national PPPs, followed by prioritization of activities for MFF Phase III. Cross cutting issues of climate change, gender, private sector engagement, fund raising and communications are also covered in detail in this NSAP.

In terms of mainstreaming MFF into national PPPs, the NSAP recommends prioritizing programmes instead of policy initiatives because the former are associated with State budget allocations, and are therefore morelikely to be integrated into programmes of work.

In phase III, the regional MFF will focus on climate change adaptation following an ecosystems-based approach. Coastal ecosystems will be considered for their key natural infrastructure, which provides a core element of coastal resilience. Within this focus, regional MFF will consists of seven core areas:

1. Climate change adaptation following an ecosystems-based approach; coastal ecosystems as natural infrastructure and as a core element of coastal resilience.

2. Resilience Framework used to direct Small Grants Facility (SGF) and Medium Grants Facility (MGF) implementation, so as contribute to the development of community-based best practices, which could then be rolled out at the national and regional level.

3. Consolidate MFF's strengths toward soft governance at a regional scale.

4. Cooperate with the existing institutional governance mechanism in the region to establish a regional information centre on sustainable coastal resources management, which is seen as a starting point for strengthening resilience and integrated coastal management (ICM).

5. Further promote strategic activities in grants' areas, according to suggestions of country members.

6. Strengthen participation of business/private sector.

7. Mainstream gender into activities.

On the basis of the prioritized direction, the expected output of MFF Vietnam for 2015–2018 is strengthened resilience of coastal ecosystem-dependent communities.

The main objectives of this phase are as follows:

1. **Objective 1:** Knowledge on sustainable coastal ecosystem management is developed, disseminated and applied.

2. **Objective 2:** Stakeholders' are empowered to participate in decision making in order to support sustainable coastal ecosystem management.

3. **Objective 3:** Coastal governance is strengthened to enhance integrated management.

The results so far have defined 10 prioritized topics (similar to the previous Programmes of Work (PoWs)) for MFF Vietnam during 2015–2018, including two required priority topics for MFF nations: *knowledge and awareness improvement* (PoW 1) and *integrated coastal management, including improvement of governance capacity for stakeholders* (PoW 11). These two NCB topics are seen as basis for MFF operation at the central level. S*ustainable Financing* (PoW 10) is considered an additional priority at the central level for Payment for Ecosystem Services (PFES) and Reduced Emissions from Deforestation and Degradation (REDD+) implementation. During 2015-2018, there are also two additional high priority topics: *Ridge to Reef Approach* (PoW 3) and *Marine Protected Area Network* (PoW 13).

Apart from the above mentioned priority topics, there are another four topics suggested for implementation at local level: *coastal ecosystem rehabilitation (*PoW2); *community participation (*PoW6); *sustainable livelihoods (*PoW8); and *community resilience (*PoW9). In addition, *private sector participation (*PoW15) will be actively implemented during Phase III with an aim to promote them to environmental friendly business operation practices). Other issues related to gender, climate change, and communication will be integrated into these topics and MFF-specific activities during 2015–2018.

The prioritized activities during 2015–2018 will help establish connections and linkages to a stakeholder learning network. This will provide opportunities for information sharing and will operationalized in the following order: 1) *knowledge improvement* (PoW1, PoW2, PoW3); 2) *empowerment* (PoW6, PoW8, PoW10); 3) *governance* (PoW11, PoW13 and PoW15). *Community resilience* (PoW9) will become a target of MFF Phase III. SGF projects should integrate priorities and activities within a programme framework to create a value chain with private sector participation. NCB and MGF's activities should also focus on policy advocacy, solutions for conservation and sustainable development and coastal and coastal ecosystems.

1. INTRODUCTION

1.1. Mangrove for the future

A response to the 2004 Indian Ocean Tsunami, Mangroves for the Future (MFF) was established as a partnership-based initiative to promote investment in coastal ecosystems. Supported by national governments, the United Nations, International Union for Conservation of Nature (IUCN), NGOs, donor agencies, and the private sector, MFF provides a unique regional platform for concerted action in support of Integrated Coastal Management (ICM), using mangroves as the entry point. After a first phase (MFF I: 2007–2009) and second phase (MFF II: 2010–2013), MFF is now in its third phase (MFF III: 2014–2018). MFF III is designed to support 10 member countries, including Vietnam, to consolidate and improve coastal resource governance structures and strengthen the role of civil society in coastal decision-making and investment. Vietnam became a full member of MFF in January 2010. While not affected by the 2004 tsunami, Vietnam is vulnerable to storms, flooding, and other natural disasters such as storms, floods, sea level rise, and other natural disasters, including tsunamis. Vietnam also has experience preparing against and responding to natural disasters, including large-scale mangrove replanting.

1.2. Mangroves for the Future in Vietnam

In Vietnam, MFF II activities were overseen by the National Coordinating Body (NCB), which is chaired by Associate Professor Nguyen Chu Hoi and Dr. Bguye Nghia Bien. Dr. Hoi is the former Deputy Administrator, Vietnam Administration of Seas and Islands (VASI), Ministry of Natural Resources and Environment (MONRE) and is currently a lecturer at Hanoi National University. Dr. Nguyen Nghia Bien, the former Director, Planning and Finance Department, Forestry Administration, Ministry of Agriculture and Rural Development (MARD) is currently Director General of the Forestry Institute on Planning and Inventory (PIFI) and vice chairman of the NCB.

At the beginning of phase III, in 2013, IUCN sent a letter and proposal to VASI to seek MONRE's guidance on NCB's organizational consolidation. MONRE suggested temporarily retaining the existing NCB structure until a new arrangement is in place.

During 2015–2018, MFF will continue various supporting programmes: small (SGF), medium (MGF) and regional grant facilities (RGF) with respective amounts of less than 25,000 USD, 50-100,000USD, and over 100,000 USD per project.

In Vietnam, MFF will consider supporting study of ecosystems at river estuaries and tidal and coastal areas to identify appropriate measures for coastal management, capacity building, awareness raising and mainstreaming gender into activities.

1.3. Lessons learnt from 2010-2013

- MFF activities should be coordinated, with a special focus on the Vietnamese government's prioritized policies for coastal management;
- There should be close coordination between the national MFF Secretariat and the National Coordinating Body (NCB);
- NCB's composition and flexibility has allowed it to quickly make practical decisions on crucial issues; NCB comprises (16 members), including representatives of Government's relevant

agencies, research institutes, private companies, international organizations and NGOs in Vietnam.

- Given the limited budget and time, Small Grants Facility (SGF) and Medium Grants Facility (MGF) projects have achieved good results by integrating and contributing to the implementation of government programmes at the national and local levels;

- Some SGF projects failed due to limited capacity and M&E budget. Therefore, NCB needs to pay special attention to selecting partner agencies with sufficient capacity and understanding of local conditions to ensure successful project implementation.

- A 12-month lifespan for a small project is too short for any ecosystem restoration project such as mangrove reforestation. Therefore, in the future, small projects should focus on management and conservation of coastal and estuarine ecosystems, not rehabilitation;

- MGF projects do not have clear management and monitoring mechanisms between MFF at the regional and national levels. As a result, NCB has not been able to strengthen its role on management, coordination and monitoring of MGF activities;

- It is crucial to build on the project results achieved so far. Hence, the next period should focus on:

    - Projects that brought direct benefits to communities through sustainable livelihoods and empowerment to participate in co-management and decision-making process;

    - Projects that received strong support of national and local leaders as they recognize its great benefit and commit to maintain its results;

    - Projects that were incorporated into national and provincial programmes and policies.

- Self-funding mechanisms for projects, for example livelihood funds or mobilization from state budget, helps to expand or replicate successful projects.

- Local community's participation and support is a prerequisite for the success of community-based projects. Further promote the bridging role between community and local government. Fund recipients (agencies and organizations) should monitor and provide technical support to enable the project success.

- MFF should connect all recipients to a network for coastal information sharing and at the same time regularly organize workshops, including review workshops, of small projects.

2. KEY ISSUES RELATED TO COASTAL RESOURCES MANAGEMENT

Vietnam's coastal area is under enormous pressure from over-population and over-exploitation of its resources (Eucker, 2006; Pomeroy *et al*., 2009; Nguyen Chu Hoi, 2009a; VDR, 2010). Coastal sectors, including in-shore fisheries, aquaculture, coastal agriculture, marine transportation and ports, oil and gas exploration and coastal tourism have undergone rapid and largely unregulated growth in recent years (Nguyen Chu Hoi, 2009a). Local communities in the coastal area are now exposed to greater vulnerability to a changing climate with limited ecological resilience or sustainability (VDR, 2010). Unsustainable growth in competing sectors has caused resource-use conflicts in the coastal

area. Key factors contributing to the over-exploitation and degradation of coastal resources are described below.

2.1. Population

By end of 2014, Vietnam's population reached over 91 million people. Vietnam is one of the most densely populated regions in Southeast Asia, especially in coastal areas (Shekhar, 2005); coastal population density in 2005 was 255 people/km^2 (VDR, 2010), with about 1,000 people migrating to coastal cities each day (Creel, 2003). In 2000, about 20 million people depended on coastal and marine resources. Vietnam's coastal population is projected to increase to over 30 million by 2020 (Nasuchon, 2009).

2.2. Economics

- High direct costs: Restoring mangrove forests requires sapling management for high rates of mangrove survival. Internationally-supported reforestation costs are in the range of VND 8-16 million/ha (US$400-800/ha); government cost norms are much less at VND4-5 million/ha (US$200-250/ha), and are typically associated with very low survival rates.

- High opportunity costs: Planned and unplanned land use for high return industries, most notably shrimp pond aquaculture (Brunner, 2010; Hawkins *et al*., 2010; Onyango *et al*., 2010), has resulted in high opportunity costs for conservation. These costs will challenge economic instruments, such as PES and REDD. Innovative bundling of ecosystem services should be explored to compensate for mangrove protection efforts of local communities as service providers (section 5.3).

- Coastal areas of Vietnam are seen as a dynamic economic region. The Government has placed high priority on the development of industrial parks, ports, construction of coastal cities, coastal tourism, brackish water aquaculture (mainly tiger prawn and white leg shrimp recently) and fishing. These activities have a great impact on coastal areas, associated ecosystems, and the critical services they provide, therefore impacting the livelihoods of coastal residents.

2.3. Policies

- Incoherent/incomplete policy, legislative and regulatory frameworks (Do Dinh Sam and Vu Tan Phuong, 2005; Swan, 2009; Hawkins *et al*., 2010): Policy shortcomings and overlapping responsibilities exist within and between coastal areas (under MONRE's jurisdiction) and forestry (under MARD). Narrowly defined, single sector policies typically fail to take into account the interests of other sectors and stakeholders.

- Forest tenure primarily vested in the State: 70% of mangroves are classified as protection or special-use forest (SUFs consist of national parks and nature reserves), with less than one-third classified as production forest (Brunner, 2010). The State (i.e., primarily management boards and state-owned forest companies) is therefore the main mangrove forest owner in Vietnam. The national programme of forest allocation, underway over the past 15 years, has resulted in the allocation of 5-10% of (production) mangrove forest to individual households, which is problematic when managing such a dynamic ecosystem. 20-30% of mangrove forests remain unallocated and under the management of Commune People's Committees (CPCs) (MARD, 2008; McNally *et al*., 2010), which typically lack the resources and expertise to exercise effective management. Mangroves under CPC control often become *de facto* open

access resources (Hawkins *et al*., 2010). Forest tenure is very relevant to emerging forest ecosystem service markets in Vietnam because communities are not legal entities under Vietnamese law and therefore cannot enter into legally binding contracts with end users (Hawkins *et al*., 2010; Onyango *et al*., 2010).

- Coastal areas are seen as multi-sector development areas that contain diverse natural resources and are affected by a range of activities, while inter-sectoral policies are incomplete. To date, policies related to coastal management seem to be “mono-sector", therefore resulting in overlapping activities and management scope across sectors. For example, in their current form, laws on water resources, land, biodiversity, marine resources, among others, have led to exploitation, over-use and mis-management of coastal ecosystems.

2.4. Practical operation

- Insufficient institutional capacity (Hawkins *et al*., 2010): Common to all natural resource management sectors in Vietnam (VDR, 2010) is the challenge of closing the gap between workable policy and persistently poor practices at the local level.

- Weak law enforcement and governance capacities: At the local level, major institutional shortcomings hamper efforts to instil more sustainable use of natural resources and install more integrated, ecosystem-based management systems (Hawkins *et al*., 2010). Law enforcement and governance deficiencies range from negligent civil service performance, the result of limited downward accountability and perverse incentives, to outright complicity in illegal resource extraction.

- Incomplete knowledge of ecosystem function (Hawkins *et al*., 2010) and coastal dynamics (Pham Trong Thinh *et al.,* 2009; Schmitt, 2010; McNally *et al*., 2010): Longer term planning for more sustainable development is undermined by short-term tangible economic benefits, which is dominating sectoral planning at the provincial and district level. Limited awareness of coastal dynamics and historical development of mangrove cover has reduced the effectiveness of past rehabilitation and reforestation efforts.

3. NATIONAL POLICIES, PLANS AND PROGRAMMES

Development and planning in Vietnam considers economic growth and national security as paramount, with little consideration given to the interrelationship between socio-economic development, environmental protection and resource conservation (Hoang Ngoc Giao, 2005). In recent decades, government policy has encouraged development of aquaculture in mangrove areas, implicitly prioritizing short-term economic gains over longer term ecosystem service provision. In the past five years, national policies have indicated a shift toward ICM, particularly mangrove rehabilitation, acknowledging the need for sustaining coastal ecosystem service provision. However, a large gap remains between national policy and local implementation and practice (VDR, 2010).

3.1. Integrated coastal management

Recently, ICM has come to be considered as an innovative concept and approach that challenges (and is challenged by) deep-rooted sectoral approaches to natural resource management in Vietnam (Nguyen Chu Hoi, 2009a). A central motivation for promoting ICM in Vietnam is to resolve sectoral, multiple-use conflicts that are driving unsustainable development of the coastal area (Eucker, 2006; Pomeroy *et al*., 2009; Nguyen Chu Hoi, 2009a; VDR, 2010).

Several government and internationally-supported ICM programmes have been implemented over the past 10-15 years, and an organizational framework for further ICM planning has been established by MONRE, aiming to apply ICM in 28 provinces by 2020. (Eucker, 2006; Nguyen Chu Hoi, 2009a). These efforts were incorporated in Decree No. 25/2009/ND-CP on ICM and protection of marine and island environment and subsequently implemented via a national ICM programme for 14 coastal provinces from Thanh Hoa to Binh Thuan (Programme 158).

The history of ICM in Vietnam has confirmed global experiences in terms of sustainable coastal development. These include the need for: an ecosystem-based approach to natural resource management to maintain ecosystem functionality; strong poverty reduction linkages for coastal communities and livelihood improvements, particularly for fishermen; and integrated upstream catchment management, since around 30-70% of the environmental impact on coastal areas is from land (Nguyen Chu Hoi, 2009b). Yet the results from the past decade of ICM work remain largely inaccessible to MFF's prioritized stakeholders as managers and decision makers at the local level.

3.2. Mangrove forestry

Policies, laws and regulations governing mangroves in Vietnam are incoherent, incomplete and inconsistent. Consequently, attempts to manage mangrove ecosystems are frustrated by policy, legislative and regulatory complexity, confusion, contradiction and conflict. A root cause is the administrative responsibility for mangroves and the coastal area being shared by two line ministries: MONRE, which is responsible for coastal planning, land allocation, biodiversity conservation, aquatic ecosystem management and protection, and climate change; and MARD, which is responsible for the management of forests, terrestrial and marine protected areas, fishing, aquaculture, sea dykes, storm and flood control (Swan, 2009).

Analytical results of recent 5 year plans have indicated inconsiderable changes. Indeed, pressures on coastal ecosystems are ever increasing (Pomeroy *et al*., 2009; VDR, 2010). MFF should align its activities with the five year action plan. MFF should, however, prioritise those objectives for operating interventions. Table 1 summarizes the alignment of MFF with the action plan.

Table 1: Alignment of MFF with the Viet Nam's National Action Plan

National Mangrove Action Plan	**MFF**	
Objective	**Strategic position**	**Rationale**
1. Change the perception of key managers and policy makers at local levels (province and district) on mangrove ecosystem values.	Primary focus for MFF: Serving as a learning and information sharing network, informing local decision-makers and practitioners.	Fundamental short-coming is the persistent policy-practice gap; local stakeholder practices can be significantly improved through information exchange.
2. Formulate and complete the legal framework to support mangrove ecosystem management. Reinforce	Engage only at the explicit invitation of government to address strategic priorities for coastal area conservation.	Inter-ministerial/departmental conflicts of responsibility pose a high-risk for MFF engagement. Although, consolidated

management effectiveness of mangrove ecosystems for concerned agencies from central to local level.	Draw on learning network capacity to inform reformist agenda.	technical assistance to selected government-led processes could be seen as an effective instrument.
3. Protect, rehabilitate and develop mangrove ecosystems.	Identify appropriate technical assistance role, introduce innovative models drawing on international best practice to inform government programmes.	Significant State and international investments in protection and rehabilitation; MFF cannot compete, but can instruct, with demonstration best practice models.

The previous national target programme (NTP) for forestry known as the 5 Million Hectare Reforestation Programme (661 project) was completed and the Prime Minister approved a 10-year forest protection and development plan for 2011 – 2020, now being implemented nation-wide, including plantation and development of 100,000 ha of coastal protection forest. MARD developed a mangroves development programme, which is funded through a World Bank loan of US$70 million. One of MFF's key role is to provide effective mangrove rehabilitation and protection lessons for sustainable coastal protection and livelihood development.

In addition to the national mangrove forest restoration and development project, the second phase of MARD's TFF-funded Community Forestry Management (CFM) was concluded by the end of 2013. Very few attempts have been made to pilot CFM in coastal areas because of their complex ecology and fragmented nature, and allocation of mangroves to households (Joffre and Luu, 2007; Pham Trong Thinh, 2010). Lessons learned from CFM projects in other forest types could be applied to promoting mangrove-based community management.

3.3. National policies, plans, or programmes relevant to MFF

National Programme to Restore and Develop Coastal Mangrove Forest for the Period 2008-2015 (MARD)

The Prime Minister approved this programme along with Announcement No. 405/TTG0KTN dated 16/3/2009 with state investment in mangroves. The programmes objectives are as follows:

- Protection of the existing 210,000 ha area of mangrove forest, to bring the total coastal mangrove area to 300,000 ha by 2015.
- Prioritization of afforestation and protection of 500 m wide mangrove belts in front of sea dykes.
- Development of models for mangrove rehabilitation, development and protection.
- Development of protected mangrove areas and improvement of national planning and policies and mechanisms on coastal mangrove rehabilitation and development.
- Development of a national database system for coastal mangrove management.

In addition, there are many donor-funded projects on mangrove conservation and rehabilitation that were conceived as a response to climate change and help implement national target programmes on climate change response.

ICM Programme for the North Central and Central Coastal Provinces (Programme 158 - MONRE)

This programme has been in operation since 2008, with VND150 billion (US$7.5 million) allocated up to 2010 and a further VND500 billion (US$25 million) earmarked for activities to 2020. In addition, VASI-led up-scaling of this programme is being technically supported by Partnerships in Environmental Management for the Seas of East Asia (PEMSEA) under the framework of the Sustainable Development Strategy for the Seas of East Asia (SDS-SEA) initiative in Vietnam for 2010–2015 and development of the SDS-SEA implementation plan for 2014–2020. Initially, ICM activities were scaled up in 7 provinces. These activities have now been extended to 17 coastal provinces across the country (Nguyen Chu Hoi, 2009a). In addition, some coastal provinces have taken the initiative to develop an ICM strategy and plan and included this in their provincial budget. Building on these successes, MFF will further cooperate with VASI and 16 provinces to further successful implementation of SDS-SEA in Vietnam.

Integrated Natural Resources Management and Protection of Sea and Island Environments (MONRE)

Decree 25/2009/ND-CP on integrated natural resources management and protection of marine and island environments, issued in 2009, is the first integrated governance policy in the field of coasts, seas and islands in Vietnam. This Decree offers guidance on ICM implementation and coastal functional zoning (Nguyen Chu Hoi, 2009a). The decree identifies VASI as a focal point responsible for coordinating the implementation of ICM plans and programmes. Pollution control, environmental accidents, natural disaster preparedness and coastal protection are among the key ICM issues to be addressed within ICM. Sources of financial, human and technological resources required to enable effective ICM are also outlined.

On June 21st, 2012, the National Assembly adopted the Marine Law of Vietnam, which is seen as the first fundamental law on marine environments for the country. This is an important legal basis for marine, island resources management, environmental protection and economic development of Vietnam. The Marine Law includes seven chapters and 55 articles concerning the scope, principles and policies necessary to manage and protect marine resources and promote international cooperation. Chapter 1, Article 4 states that "agencies, organizations and citizens in Vietnam have a responsibility to protect the sovereignty, sovereign rights, and national jurisdiction over the waters, islands and archipelagos, marine resources and environment protection."

Planning of Vietnam's Marine Protected Areas (MPA) System to 2020 (MARD)

After more than a decade of international support and piloting of MPAs, along with Decision No. 742/QD-TTg, dated 26/5/2010, the Prime Minister approved an MPA system to be developed by the year 2020. As a result, 16 MPAs were established to ensure that marine ecosystems and species with high economic and scientific value are protected, and that MPAs contribute to marine economic development, improving livelihoods for communities living inside and adjacent to MPAs as well as fishing communities in general.

The first phase (2010–2015) focused on operationalizing and management of 16 MPAs. The second phase (2016–2020) will focus on creating new MPAs. The total investment cost, to 2020, is projected to reach VND460 billion (US$23 million) and will be funded from the central State budget and national/international organizations.

The first phase focused on implementation of five tasks:

- Develop detailed planning and operationalize 11 PAs;
- Review and adjust the existing detailed planning of 5 PAs;
- Develop database for the PA system;
- Study to supplement policies and regulations related to MPA management;
- Develop capacity for staff engaged in MPAs from central to local level; improve awareness for local communities living adjacent to MPAs.

So far, 6 MPAs have been established (Nha Trang Gulf, Cu Lao Cham, Phu Quoc, Con Co, Hon Cau, Bach Long Vy). In addition, some national parks also carry out marine conservation tasks (Con Dao, Nui Chua, Bai Tu Long and Cat Ba). Other activities are being conducted and finalized during development of management plans and profiles for the remaining MPA. Furthermore, legal documents related to MPAs have been gradually developed and completed.

The establishment of MPAs system will help protection of ecosystems and high economic and scientific value marine species while contributing to improve livelihoods for fishermen and local people living inside and adjacent to MPAs.

Planning system of inland water protected areas by 2020 (MARD)

Along with Decision No. 1479 / QD-TTg dated 13/10/2008, the Prime Minister has approved a system of 45 protected inland water areas to be developed by 2020. These include 16 national PAs and 29 provincial PAs, many of which are located in coastal areas and estuaries. The main objective is to create a system of inland water PAs to protect, restore, and renew fisheries resources, especially rare, valuable and high economic and scientific value aquatic species and protect inland aquatic ecosystems. Another component is to encourage community participation in management and appropriate utilization of resources, so as to ensure ecological balance and biodiversity conservation in inland waters. Total investment to 2020 will be VND85 billion (US$4.2 million) and will be funded by the State budget and by other local and international organizations. Currently, a number of activities are being conducted, including planning, development of profiles on establishment of six national, inland water protected areas, including Ca Mau MPA.

Coastal Resources for Sustainable Development Project (CRSD – MARD)

CRSD has a total budget of US$124.4 million (including $100 million in loans from the World Bank, $6.5 million of grants from GEF and $17.9 million counterpart funds from the Government of Vietnam). The project's life span is six years (ending by 31 January 2018) and incudes eight provinces: Thanh Hoa, Nghe An, Ha Tinh, Binh Dinh, Phu Yen, Khanh Hoa, Soc Trang and Ca Mau. The overall objective of the project is to improve sustainable coastal fisheries management in selected localities. The project's development objectives are: a) Strengthening institutional capacity of the fisheries sector for sustainable resources management; b) Promoting sustainable aquaculture production measures; and c) Implementation of best practice
processes for sustainable coastal fishing. During 2013 and the first half of 2014, MFF has coordinated with CRSD to carry out some activities and will further cooperate in the future.

National Biodiversity development strategy to 2020 and vision to 2030 (MONRE)

The Prime Minister issued Decision No. 1250/QD-TTg to approve the National Biodiversity Strategy to 2020, vision to 2030 with an aim to conserve and sustainably use important natural ecosystems, rare and valuable species, and genetic resources, so as contribute to developing the country toward a green economy and for active response to climate change. Specific objectives include: PA area will reach 0.24% of Vietnam's total marine territory; 15% of the important degraded natural ecosystems will be restored; no further species will go extinct; status of some endangered, rare and valuable species will significantly improve.

National strategy for management of SUF system, MPA, inland water PA in Vietnam to 2020, Vision 2030 (MARD)

On 2 July 2014, the Prime Minister issued Decision No.218/QD-TTg ratifying the strategy for management of special-use forests (SUF), marine protected areas, and inland water PAs in Vietnam to 2020, vision to 2030. This strategy inherited and further consolidated achievements of the PA system management strategy for 2003–2010, including further implementation of MPA planning in Vietnam (Decision No.742/ QD-TTg) and inland water PA system planning (Decision No.1479/QD-TTg) to 2020.

Programme on fisheries resources Protection and Development by 2020 (MARD)

Building on results of the Programme on Fisheries resources Protection and Development during 2005–2010, approved by the Prime Minister under Decision No. 188/QD-TTg, dated 13/2/2012, this programme will be concluded by 2020 with special focus on fisheries resources investigation; prevention of fisheries resources reduction; conservation and regeneration of fisheries resources and ecosystems, particularly typical ecosystems as coral, seagrass and mangroves. The total investment budget for the programme is VND410 billion (US$20 million).

Vietnam Fisheries resources regeneration Fund (MARD)

The Government's efforts to gradually protect and regenerate fisheries resources given the context of severely reduced fisheries resources and destroyed aquatic ecosystems have been reflected via functioning and operation of the Vietnam Fisheries resources regeneration fund (established along with Decision 29/2007/ QD-TTg of the Prime Minister, dated 02/28/2007).

Main objectives of the Fund:

- Raise awareness, understanding and responsibility of all levels, sectors and people for fisheries resources protection and development;
- Improve livelihoods for part of local people whose life depends on fisheries resources;
- Socialize; create sustainable financial resources for fisheries resources protection and development.

The main task of the Fund is to mobilize and receive financial resources to cover activities on prevention fisheries resources depletion while regenerating these resources, including protection and regeneration of coral reefs, sea grass beds and mangroves ecosystems.

NTP to Respond to Climate Change (MONRE)

The government's response to climate change is encapsulated in the NTP to Respond to Climate Change. Actions relevant to MFF include:

- Contribute to implementing pilot projects to evaluate CC impacts, especially in case of the sea level rising, vulnerable sectors and provinces: water resources, fisheries, livelihood, plains and coastal areas.

- Build up integrated river basin and coastal management models responding to climate change.

- Recommend measures on protection forest development (upper and coastal), consistent with climate change scenarios.

UNESCO Man and the Biosphere (MAB) Programme

Vietnam has developed a network of six biosphere reserves in the coastal area: Can Gio, Cat Ba, Cu Lao Cham-Hoi An, Kien Giang, Mui Ca Mau, and the Red River Delta, in addition to the proposed biosphere of the Mekong River Mouth in the three provinces of Ben Tre, Soc Trang, and Tra Vinh. The approach of using biosphere reserves as learning laboratories for sustainable development, including impact assessment and adaptation to climate change, has been developed in cooperation with other World Heritage Sites and Geo-parks under UNESCO (Nguyen Hoang Tri, 2009).

National strategy and plan on green growth until 2020

On 25 September 2013, the Prime Minister promulgated Decision 1393/QĐ-TTg approving a National strategy on green growth by 2020 and National action plan for the period 2014–2020 under Decision 403/QĐ-TTg, dated 20 March 2014. Accordingly, the Government states: "Green growth is based on the increased investment in conservation, development and efficient use of natural capital sources; reduction in greenhouse gas emissions, improvement and raise of the quality of the environment, thereby stimulation of economic growth".

General objectives of green growth are: *"*Green growth, towards the low-carbon economy, natural capital enrichment has become a decisive tendency in sustainable economic development; reduction in emissions and increase in the possibility to absorb greenhouse gases is becoming mandatory and important targets in socio-economic development". Today, sectors and provinces have carried out national strategy and action plans on green growth, including the marine-based economy. The general objective of MFF is contributing to build the basic foundation for green growth of coastal zones in Vietnam.

Strategy on sustainable use of natural resources and protection of the marine environment until 2020, with vision to 2030 (MONRE)

The strategy was promulgated in accordance with the Decision 1570/QĐ-TTg, dated 6th September 2013, by the Prime Minister. Its objectives which are relevant to MFF include:

- Reducing the degradation levels and exhaustion of natural resources and controlling the increasing environmental pollution in coastal zones and on islands;

- Improving ability to respond to climate change, maintaining ecological functions and biodiversity of marine ecosystems in order to protect marine biodiversity and marine benefits;

- Capacity development and improvement of effective management in basic investigation, exploitation, use of natural resources in a sustainable way and marine environment

4. MAINSTREAMING WITH NATIONAL POLICIES AND PROGRAMMES

Support to policy reform is recommended as an MFF priority. MFF can assist by conducting or commissioning policy studies to inform development of new regulations, and by direct assistance to the reform process.

4.1. MONRE

- National strategy on integrated coastal management by mainstreaming environmental sustainability with coastal spatial planning.

- Integrated management of natural resources and marine and island environment protection.

- The Vietnam marine law was approved by the National Assembly on 21 June 2012; the law on marine natural resources and environment is in preparation, with support of MFF Vietnam and UNDP Vietnam, and is expected to be submitted to the National Assembly in 2015.

- National action plan for 2011–2020 on coastal wetland sustainable conservation and development in Vietnam.

- Strategy on sustainable exploitation, use of marine resources and environmental protection.

- National programme to respond to climate change.

- Strategy on biodiversity preservation.

4.2. MARD

- Policy on payment for forest environment services in accordance with Decree 99/2010/NĐ-CP, determining types of services and target groups of payer and payees for forest environment services, including mangrove services.

- Plan on forest protection and development for the period 2011–2020 concentrating on recovery and development of mangrove and coastal forest ecosystems.

- Forest management mechanism including mangroves is reviewed and going to be amended.

- Manage the system of Vietnam marine protected areas and issues relevant to fishery resources protection.

4.3. Coastal provinces

- Implementation of Action plan on Green growth for the period 2014–2020.

- Implementation of action plan to respond to climate change and sea level rise for the period 2010–2020.

- Implementation of integrated coastal management in provinces for the period 2014–2018.

MFF needs focus on the above-mentioned policies by implementing the national programmes in coastal provinces. MFF prioritizes national programmes such as: Programme on Integrated coastal management carried out by MONRE in some central provinces and Programme on coastal mangrove recovery and development; Planning for marine protected areas by MARD (Part 3.3).

5. PRIORITIZED PROGRAMMES

Results analysis has identified 10 Topics (or prioritized PoW for MFF Vietnam for the period 2015–2018). The two default prioritized topics of the MFF member countries are: Knowledge and awareness raising, and Integrated coastal management, including management capability development for stakeholders. The two topics are basic for MFF's operation at central levels proposed by NCB. In addition, the topic on sustainable finance is identified as additional priority at central level to apply payment for forest environment services (PFES) and emissions from deforestation and forest degradation (REDD). In the period 2015–2018, two more topics defined at a higher priority are: *Approach from the headwaters to the sea* and *the network of* marine protected areas.

Apart from the above-mentioned priority topics at central levels, 4 other topics are recommended to be carried out at local levels: *Coastal ecosystems restoration; Community participation; Sustainable livelihoods; and Community resilience to climate change*. Besides, *the participation of the private economic sector* will also be actively mobilized in the 3rd phase in order to promote these components to do business practices in an *environmental friendly way*. Issues related to gender equality, climate change, communication will be integrated into the above topics and the specific activities of the MFF for the period 2015–2018.

The priority activities for the period 2015–2018 will be set up and connected with stakeholders, learning network as a basis to share information and implement activities in priority order: i) **knowledge improvement**; ii) **Empowerment**; iii) **Governance**. Community resistance to climate change will be expected outputs of MFF programme phase III. SGF projects should integrate the priorities and activities into a framework to create value "chains" with the participation of the business sector. The activities of MFF NCB and MGF project focus on policy advocacy, conservation measures and sustainable development of marine and coastal ecosystems.

5.1. Knowledge improvement

5.1.1 Knowledge and awareness improvement

To change the policies and practices towards managing coastal ecosystems as natural infrastructure to ensure the social welfare and security, MFF will mainly operate as a network of learning and sharing information. MFF will be one of the bridges providing and sharing information about coastal management in Vietnam. Serving in that role, MFF will have the following main tasks:

- Collect, examine and compare key research.
- Analyse, synthesize and share the lessons learnt and models to improve community resilience.
- Disseminate policies and apply good technical experience.

- Conduct research according to relevant PoWs.

- Organize capacity development activities, including training courses on integrated coastal management and platforms for stakeholders.

- Evaluate the current situation on resilience and develop selection criteria.

- Consolidate cooperation within countries in the regions and transboundary (with Cambodia and China).

The main target group includes: policy makers, particularly leaders at provincial and district levels.

5.1.2 Coastal ecosystem recovery

MARD is implementing Mangrove recovery and development plan phase 2011–2020. In the Mekong region, GIZ/AusAid and UN-REDD have concentrated on mangrove development. MFF's role in this field is to support mechanisms and models on management and to promote ecosystem services and livelihood benefits.

5.1.3 From Ridge to Reef

There is a very important functional linkage between a river basin and coastal area. Both systems are linked with each other through natural processes (water and silt flow) as well as human impacts (urban and rural development, infrastructure construction, waste and pollution). Coastal areas have great value because they include a concentrated area of various habitats and rich natural resources. River basins also provide ecosystem services to humans, plants and animals. The geographical features of coastal areas and river basins have created many favourable opportunities for investment.

Coastal areas are a very important part of a river basin, however, these two systems are often managed separately and independently. Thus, better understanding and approaches are needed for the integrated management of river basins and coastal areas based on their ecology, hydrology and socio-economic connections. Understanding the link between rivers and their basins will provide a better management of river basins. This integrated approach should be extended, covering both the estuary and coastal areas. It is especially important for areas where saltwater and freshwater mix, for example estuaries, coastal islands and lagoons.

MFF will give priority to activities supporting policy development on integrated spatial management from the upstream to the sea.

5.2. Empowerment

5.2.1 Strengthen the involvement of social organizations into decision making

Social organizations increasingly contribute to the management, conservation and restoration of estuary and coastal ecosystems as well as the decision making in Vietnam. The involvement of these organizations in the related programme/project development and implementation is very significant. The participation of civil society organizations in decision making in Vietnam is a complicated and large field, so MFF should limit the scope of its support to focus on priority areas.

5.2.2 Sustainable livelihoods

The approach of participatory management and conservation of coastal ecosystems is able to contribute significantly to coastal livelihoods through improving ecosystem services, diversifying and enhancing values of coastal resources. MFF can support improvement of sustainable livelihoods:

- Natural resources: the models of agro-fishery-mangrove forest; model of combined forestry-fishery (shrimp, fish, seaweed, beekeeping, clam farming, etc. , with the aim of improving the production values and decreasing use of mangrove forest resources); coastal ecotourism, including both commercial and recreational fishing.

- Human resources: Improve local understanding of adaptive production technologies (changing crop season, diversifying livestock and plant varieties) in sustainable aquaculture.

- Financial resources: Improve access to credi; enhance participation and investment of enterprises in the value chain; provide package of ecosystem services.

- Social resources: the process and structure of co-management institutionalization (ensuring benefits/access, negotiation about water management, the right of community organizations).

- Material resources: besides other resources, machines, tools, equipment, potential costs are considered as the integral elements of sustainable livelihood models.

Finally, problems related to excessive aquaculture and capture of fishery products should be overcome. The national policies should shift a substantial proportion of coastal livelihoods to the others independent of coastal resources. This large-scale reform is beyond the framework of MFF. Therefore, MFF should limit the scope of its support to small-scale pilot projects and build on lessons learnt from past efforts in sustainable livelihoods development in MPAs (McEwin *et al*., 2008).

5.2.3 Sustainable financing mechanism

Two forms of sustainable financing mechanisms are considered to apply in coastal areas: PFES according to Decree 99 and carbon credit fund for international markets (or national market) (both REDD and plantation forest, reforestation and increase of forest coverage).

MFF is supporting implementation of the PFES policy according to the Decree 99. The support of MFF in implementation of PFES for mangrove forest is considered to be an important contribution to objective of PFES policy, led by MARD. The Opportunity to apply regional MFF initiatives to carbon credits in Vietnam has been taken into account by MFF Vietnam.

5.3 Governance

5.3.1 Integrated Coastal Management (ICM)

The national strategy on integrated coastal management by 2020 and vision to 2030 is approved by the Prime Minister. Implementation of this Strategy continues to be supported by PEMSEA until 2018. The conformity of MFF with this Strategy is summarized as below:

Table 2: The conformity of MFF with objectives of the National Strategy on Integrated Coastal Management

Strategy Objectives	MFF PoW Priorities	Implementation Level
Recognition of the integrity of coastal region	1. Enhancement of knowledge base (learning network, advocacy)	Central level
Mechanism development of ICM at central level	1. Enhancement of knowledge base (learning network, advocacy)	Central level
Capacity development on ICM at central level and provincial level	1. Enhancement of knowledge base (learning network, advocacy)	Central level Provincial level
Development of ICM tools to support implementation of ICM at provincial level	2. Coastal rehabilitation 8. Sustainable livelihoods 9. Community-based response 14. Adaptive management (demonstration site)	Provincial level
Strengthen and support implementation of ICM at provincial level	14. Adaptive management (demonstration site)	Provincial level
Enhancement of International cooperation on ICM	1. Enhancement of knowledge background (learning network, advocacy)	Central level

5.3.2 Marine protected area

MPAs are a tool for natural resources management. They can be used to slow down and gradually reverse the process of coastal ecosystem decline. MPAs, particularly strictly protected areas, have great value in improving the health of ecosystems, habitats of aquatic species; conserving and storing rare and endangered aquatic species; protecting the spawning grounds of high value aquatic species, thereby increasing populations in the MPA (rebound effect) as well as dispersing aquatic populations to surrounding sea areas (spillover effect).

The establishment and implementation of MPAs contribute significantly to socio-economic development in provinces and create new sources of income, directly improves livelihoods for coastal communities, reduces pressure on the exploitation of natural resources, contributes to the protection of the environment in the region and facilitates sustainable aquaculture development.

On 26/5/2010, the Prime Minister issued Decision No. 742 / QD-TTg establishing 16 MPAs as a part of the Sustainable Development Strategy. Six out of these 16 areas are officially demarcated. Five of six MPAs (Nha Trang, Cu Lao Cham, Phu Quoc, Con Co and Hon Cau) have been supported by the DANIDA-funded projects for the period of 2002–2011.

MFF can support awareness raising of the importance of marine conservation for managers at all levels, organizations, enterprises community and local people in MPA provinces; support the typical conservation models of ecosystems and rare, valuable aquatic species in MPAs, experience sharing of MPAs network management between Vietnam and other countries in the region.

5.3.3 Practices in friendly environmental business

Aquaculture and inshore capture directly impact on Priority Work Plans of countries: the coastal zone rehabilitation (PoW2); sustainable livelihoods (PoW8); adaptive ability of communities (PoW9) and adaptive management (PoW14). Aquaculture should be promptly developed towards the sustainable and low-intensity aquaculture models, primarily focusing on the better quality/lower yield fishery resources. The system of low intensity shrimp farming, which combines valuable mangrove products with improvement of forest management, can be the basis for the restructuring process mentioned above.

The programme will focus on promoting participation of enterprises and changing operations in the private sector to reduce negative impacts on coastal ecosystems and enhance resilience of nature and communities. Objectives include: (a) increase direct investment of the private sector in coastal management in order to contribute to maintain sustainability of MFF, (b) focus on involving enterprises or private sector into activities of MFF in the period from 2014–2018, (c) encourage enterprises and private sector to apply the value chain in production and business, to use green and clean technologies.

5.4. Output objectives – Community resilience

Resilience

The impacts of climate change are summarized in Section 6.1. Community resilience to natural disasters and climate change is specifically mentioned in other priority PoWs:

- Coastal rehabilitation: mangroves and other coastal ecosystems serve as buffers against extreme weather events, storm surges, erosion, floods and saltwater intrusion.

- Sustainable livelihoods: diversified activities, inshore fisheries, aquaculture and agriculture sector best practices contribute to safeguarding rural livelihoods, food security and coastal agro-biodiversity against the impacts of extreme climate events, precipitation change, ocean acidification, sea level rise (SLR) and sea surface warming.

- Adaptive (collaborative) management: facilitating community-based disaster risk reduction through proactive planning (as opposed to reactive emergency relief) and capacity building that addresses the site-specific needs of local communities.

MFF support for natural disaster resilience in Vietnam should be community-based and avoid two key areas of intervention characterized by high cost, risk, and technical complexity: tourism (as an alternative livelihood option) and coastal planning (such as beach and dune nourishment; climate-proof building standards, and structural shoreline stabilization.

MFF interventions for mangrove PFES (PoW 10) would also contribute to community resilience by providing additional economic incentives to protect critical habitats that defend against flooding and storm surges as well as coastal erosion.

6. CROSS CUTTING ISSUES

6.1. Climate change

Vietnam is one of the countries predicted to be most severely affected from the impact of climate change from sea level rise (SLR), increasing storm frequency and intensity, especially in the Mekong Delta and the coastal strip. MARD has boosted its commitment to mangrove conservation programme through the National mangroves Rehabilitation and Development for 2008-2015. Similarly, MONRE also strengthens commitment through investment in the integrated coastal protection in central region; in collaboration with PEMSEA and other international projects to scale up to the north and south coastal area.

Mangroves and coastal ecosystems play important climate change adaptation (coastal protection) and mitigation (carbon sequestration) roles; they are also vulnerable to the impacts of climate change mentioned above. Functional coastal ecosystems are more resilient to climate change because they sustain the supply of services that are important to people: fisheries, food security, storm protection, flood mitigation, erosion control, water storage, groundwater recharge, retention of nutrients and sediments, filtering of pollutants, etc. Maintaining biodiversity of the ecosystem is critical to ensuring healthy ecosystem processes and natural resource-dependent livelihoods, such as capture fisheries and aquaculture.

MFF can contribute to national climate change efforts through information sharing and policy advocacy and through pilot community resilience projects (incorporating one or more elements of prioritized programmes). Adoption of sustainable financing as a strategic priority for national-level engagement in Vietnam should contribute to co-financing relations with other projects and organizations.

MFF operations should use regional MFF tools and guidelines as a reference; this is particularly important for any future LGF. MFF could contribute added value in the field of coastal community resilience through the promotion of vulnerability assessment best practice. This facilitates integration of community resilience concerns into relevant development policies, plans, programmes, and projects at the national, provincial and local level. Field testing and tailoring coastal climate change adaptation tools and methodologies[2] to specific contexts is an urgent need where MFF could make valuable contributions. NCB will be supported in terms of capacity building for mainstreaming climate change into national MFF actions.

6.2. Gender equity

Gender equity and equality are recognized by MFF as fundamental prerequisites for any conservation and sustainable development initiative. Coastal communities are exposed to livelihood vulnerability, which is determined largely by people's adaptive capacity, capacity that is not uniform across different subgroups of a community. The inequitable distribution of rights, resources, responsibilities and relationships (i.e., social capital or power), in addition to cultural norms and possibly government policy, constrains many people's ability to take action when confronted with a change in livelihood circumstances, particularly for women. Hence, gender is a critical factor in understanding livelihood vulnerability, particularly in the context of climate change (CARE, 2010).

[2] For example, USAID's adapting to Coastal Climate Change – a guidebook for development planners; CARE International's Community-Based Disaster Risk Management Planning and Preparedness Processes and Climate Vulnerability and Capacity Assessment (CVCA); IUCN's Community-Based Risk Screening Tool – Adaptation and Livelihoods (CRiSTAL).

MFF's approach to gender mainstreaming in Vietnam should be based on a sound understanding of how gender influences livelihood vulnerability, together with how gender-empowering activities can be incorporated into MFF interventions at all levels, from policy advocacy at the national level to demonstrating best practice at the local level. However, all SGF/LGF proposals should be screened for gender integration. As a minimum requirement, MFF will ensure adherence to the following principles:

- Ensure gender sensitization starting with participatory gender-sensitive analysis of livelihood vulnerability.
- Recognize and target interventions according to the differential gender-based vulnerabilities within different coastal regions, communities and households.
- Build on the existing natural, financial, physical, and most importantly, social assets and capacities of men and women.
- Target the most vulnerable men and women to build adaptive capacity and strengthen community resilience that underpins sustainable livelihoods.
- Identify, plan, implement, and monitor and evaluate site-based interventions with the participation of both women and men, including the most vulnerable groups in the community.
- Promote coastal area policies and programmes at national and sub-national levels that meet the specific needs of poor women and men.
- Support men and women to access and develop the rights, resources, responsibilities and relationships they need to adapt to their changing environment and ensure a sustainable livelihood.
- Promote gender equity and empowerment as long-term goals.

The responsibility for coordinating gender at the country level will lie with the NCB and will be monitored by the MFF Regional Secretariat (RS). The RS will arrange technical advisory inputs required to integrate gender into MFF partner programmes. It will provide technical guidance and capacity building support to national programmes in the fields of:

- Developing a monitoring and evaluation framework to measure gender specific impacts of MFF projects, beginning with appropriate baseline information-gathering that includes gender-segregated data.
- Collecting information on rights, resources, responsibilities and relationships that underline gender inequity issues.
- Screening of all MFF project proposals for gender integration.
- Developing case studies on gender differentiated impacts of climate change and other gender-related issues in coastal areas.

- Providing updated gender guidelines to all MFF proponents that provide a checklist on how to ensure gender is part of project identification, planning, implementing, monitoring and evaluation;

6.3. Capacity building programme on integrated coastal protection

Capacity development for coastal management (coastal management practitioners/ institutions) remains a significant area of interest and demand in MFF Phase 3. MFF recognizes Integrated Coastal Management (ICM) to be an important and central approach for achieving the central goal of building resilience in coastal ecosystems and communities. In this respect MFF recognizes that building capacity for ICM in coastal management practitioners at the local, national and regional levels is central to achieving this goal. MFF defines coastal management practitioners as all stakeholder groups and their associated institutions involved in managing coastal ecosystems; Government, NGO/CSOs, Private Sector, Research and Academic Institutions.

In Vietnam, ICM capacity building programme could include (1) integration with post-graduate training programmes (up to 15% training curriculum) of Viet Nam National University, Hanoi, Ho Chi Minh National University and possibly Can Tho University. Da Nang University has established ICM training Centre. Collaborating with PEMSEA or World Bank capacity building projects on fish resources protection could be another option. (2) Building capacity of governance mechanisms for ICM through which national government, NGOs, private sector to work collaboratively to influence policy and deliver projects on the ground; and (3) National workshops and short training events that support national policy and capacity development needs and priorities.

6.4. Funding sources

MFF resources allocated to Vietnam are modest. NCB will need to be proactive in securing and documenting sources of co-financing. Co-financing national MFF activities can be either cash or in-kind. Four sources of co-financing are identified: national (and possibly provincial) budget allocations, PFES revenues, bilateral donor support, and private sector (Table 3).

Table 3: Co-financing opportunities and MFF response

Co-financing opportunity	Response	Type of co-financing
1. State budget allocation	Influence, through piloting demonstration models for up-scaling by national/regional programmes	Short-term, in-kind
2. Bilateral donor aid	Support communications and fund-raising efforts to market MFF to in-country bilateral donors	Short-term, cash
3. PFES revenues	Explore, under PoW 10, opportunities for developing mangrove PFES policy and practices as sustainable financing mechanisms	Long-term, in-kind
4. Private sector CSR	Explore private sector partnerships that strategically support priority PoWs	Long-term, cash

6.5. Property, land use rights and sensitive issues

Property, land use rights are sensitive and important to ensure the project success. During the period 2015-2018, MFF Vietnam will study and integrate these contents into projects selection process as well as MFF general activities.

7. PRIORITIZED ACTIVITIES FOR 2015–2018

7.1. Geographical scope

MFF will perform in 2 geographic areas: national and local level (solutions based on pilot areas under small funded projects/programmes, and then large-scale funded programmes and following all the prioritized action plans). Small scale Grant Fund (SGF), the immediate priorities of the MFF will depend on the limited geographical scope. This document does not propose specific provinces but presents the important criteria to consider choosing a focus area received small scale grants. National activities are presented in the below in section 7.2. Geographical criteria may not be applied for the large grants fund (LGF).

Table 4 presents the list of 5 core criteria applied to determine which province will be included in the period 2014–2018. The National Coordination Body (NCB) will use these criteria as prerequisite for selection prior to the calling for interest in the framework of SGF, or to be used as a review "tool" when selecting project proposals for funding under the SGF.

Table 4: Criteria for selection of MFF-prioritized provinces in Vietnam

Criteria	Remarks
• Representative province	Focus areas represents economic, social and environmental context for the whole region; suitable demonstrations for replication
• Investment gap	Absence of important options in focus areas so as fail to attract other big investors; avoid overlaps/competition with larger projects/programmes
• Co-financing	Focus areas where demonstrated necessary and important added value thanks to the existing solutions.
• Accessibility	Able to access for pilot implementation, monitoring and evaluation
• Vulnerability to climate change	Focus areas are vulnerable to climate change (great demand), but needs to ensure its long-term impact
• Gender mainstreaming	Gender plays an important role in the deployment and implementation of projects and policies. However, currently gender issues have yet to be clearly identified.

7.2. National programme

The main function of the MFF is a network of knowledge and "port" to provide information. Beneficiaries of this network will include: (1) decision makers at national level; (2) decision makers at local level (provincial and district), and (3) implementers at grassroots level. Local decision makers (PPC, DPC, along with DONRE and DARD) are the priority targets; efforts to raise awareness at the provincial and district level will help MFF resolve obstacles in sustainable integrated coastal management in Vietnam.

MFF scale does not correspond to the State and donors' financial commitment for mangroves and other coastal ecosystems. The coastal area is already a crowded playing field with some on-going and developing projects (especially coastal areas in the Mekong River delta). However, each project has its own operational contents and all interventions in the selected focus areas have insufficient connection to the national policies. Therefore, MFF should undertake an important role to maintain screening the selection, disseminate important policy issues and best practice models across the country. MFF has particular progress in this area by supporting the organization of national consultation workshops on policies related to mangroves co-management (2009); Carbon credit mechanism (2010); Marine and coastal spatial planning (2013); Green growth and green ports (2014); Effective management of marine protected areas network (2014); Approach to integrated management from upstream to the sea (2014); and Public-Private Partnership on marine environment (2014).

Operating as a network that comprises representatives from government and civil social organizations, MFF would increase dialogue on mangroves and coastal ecosystems conservation. This network will help MFF exist in parallel with the achievements at both national policies and local practices so as creating favourable conditions for adaptation and flexible measures. It also contributes to the exchange of ideas and experiences with other MFF's member countries.

MFF needs to maintain a certain flexibility (and budget) to meet emerging needs. Every year, NCB should conduct/order one or more research themes (policies study) as well as provide consultancy.

7.3. Small Grants Fund

SGF will primarily finance small-scale solutions in prioritized areas targeting at beneficiaries as community organizations (including community, community based organizations, cooperatives), non-governmental organizations, local mass organizations, research institutes, small enterprises and management boards. This solution aims to increase the awareness of governments and local communities on the necessity of coastal ecosystem conservation, recovery and sustainable management for the benefit of human being and nature. This is a prerequisite for promoting the participation of community organizations engaged in integrated coastal management in Vietnam.

7.4. Medium Grants Fund

MGF began operating in 2010, mainly built on the basis of scaling up successful small projects and consider them as lessons learnt for policy makers or contributing to the implementation of other programmes. MGF contributes to enhancing the adaptability of coastal communities who depend on the ecosystem by addressing specific ecological and socio-econimic problems.

Natural characteristics of the coastal area in the project areas should be in line with MFF's criteria and priorities (coastal dunes, estuaries, lagoons, seagrass, mangroves, coral reef, etc., localities where data is available and has ecological and environmental importance.

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ANNEX 1: OVERVIEW OF EXISTING MANGROVES IN VIETNAM

Eco-values of mangrove forests

Mangrove forests across the world (MA, 2005; McLeod and Salm, 2006) and in Vietnam (Do Dinh Sam and Vu Tan Phuong, 2005; Schmitt, 2009; Schmitt, 2010) have been providing society with many high value ecological services, including cultural and socio-economic benefits:

- Commodities: fishing, livelihoods and trade (food, habitat for aquatic species); aquaculture, fuelwood, non-timber forest products (NTFPs) (bee honey, medical plants, mollusc, shellfish)
- Regulation function: protect coastal areas (tide, storms, big waves and floods); erosion control; soil sustainability and sedimentation; water quality maintenance; climate regulation
- Cultural services: tourism and recreation; spiritual values
- Support services: Carbon sequestration, nutrient recycles.

Trend in mangrove forest cover

Mangrove forests have globally been lost at four times the rate of inland forests and this deforestation is reflected in a decrease in mangrove forest cover in Vietnam: between 2000 and 2005 Vietnam's natural mangrove forest area decreased by 19% vs. 4% of evergreen broad-leaved forest area (MARD, 2008). In the second half of the 20th Century, mangroves in Vietnam decreased by almost two-thirds (World Bank, 2005), from 400,000 ha down to about 155,000 ha in 2001 (Phan Nguyen Hong; Quang Thi Quynh Dao, 2003). The rate of mangrove loss is estimated at 15,000 ha/year for the period 1985-2000 (Vo Sy Tuan, 2005)

As reported by the Ministry of Agriculture and Rural Development (2008), out of 323,712 hectares of mangrove forests across the country, less than one-third (113,971 ha) was underdeveloped. Nearly three-quarters of the existing mangroves in Vietnam were recently planted following a typical monoculture method and have low biomass and poor diversity (UNEP, 2004; VEA-BCD, 2009). The last national mangrove forest inventory was conducted in 1999, however, many specific figures in each "hotspot" areas showed an increasing number of programmes for forest protection and reforestation has contributed to stabilize the mangrove cover over the past decade (World Bank, 2005) and shifted Vietnam into a stage of afforestation (FAO, 2007). The existing mangrove area is very fragmented: As indicated by GIS data provided by Forest Inventory and Planning Institute of the Ministry of Agriculture and Rural Development (FIPI) and the Ministry of Natural Resources and Environment (MONRE), total area of mangroves in 2005 reached more than 150,000 ha, equivalent to 100 ha per each patch (Brunner, 2010). The Mekong Delta accounts for over 60% of Vietnam's total mangrove forests. An additional 20% of the mangroves are located to the south-east, and another 20% in the coastal areas in and around the Red River Delta (Table 5).

Table 5: Mangrove distribution in Vietnam (MARD, 2008)

Region	Total area (ha)	% of the total	Natural forest (ha)	Plantations (ha)
North-east	37,651	18	19,745	17,905
North-central	1,885	1	564	1,321

South Central	2	0	2	0
South-east	41,666	20	14,898	26,768
Mekong Delta	128,537	61	22,400	106,137
Total	*209,741*	*100*	*57,610*	*152,131*

Causes for mangrove deforestation and degradation

Vietnam's mangrove forests began to decrease during the Indochina War (1960s) because of the US Air Force's release of toxic defoliants in the Mekong Delta (Brunner, 2010). This decrease continued during the post-war period of economic reform (starting in the mid-1980s). T Signals from trade liberalization and export growth and the planned and un-planned responses to the global marine product market have led to a large-scale conversion of mangrove forests into shrimp farms (WWF, 2004; MARD, 2010; McNally, 2010). The extensive aquaculture expansion starting in the 80s and 90s caused a loss of two-thirds of mangrove forests in Vietnam. The Government continues to set significant goals to increase the value of national aquaculture (McNally, 2010) and to greatly expand brackish water and saltwater aquaculture (McNally *et al., 2010*)

Aquaculture is mainly to blame for mangrove loss. In addition, all other causes such as land reclamation for farming land, infrastructure development (particularly dyke development and sea port construction), urbanization, industrial development and coastal tourism has contributed to the loss. A Strategic Environmental Assessment (SEA) has not yet been completed as expected. The unqualified Environmental Impact Assessments (EIAs) have contributed to deteriorate mangrove loss in Vietnam (Hawkins *et al*., 2010). In recent years, oyster farming on wetlands has caused mangrove deforestation (McNally et al., 2010). Logging for timber and fuelwood and fishing and catching shellfish species have also significantly contributed to deteriorate the quality of mangroves over recent decades (Hawkins *et al., 2010;* McNally *et al., 2010*).

Environmental pollution caused by residues of fertilizers and biocides from farming activities are seen as the cause for weakening the sustainability of mangrove ecosystems. The hydropower and irrigation schemes located in the upstream (dams and irrigation schemes) contributed to increase the complexity of water flow regulation in the coastal zones, which might affect the sustainability of the mangrove ecosystem due to a change of erosion and/or sedimentation. The sea level rising and salt water intrusion caused by climate change (especially in the Mekong Delta) as well as the higher intensity and frequency of storms (along the Northern and Central coastline) are also affecting the sustainability of mangrove forests in the coming decades (*Schmitt, 2010*)

Efforts of re-forestation

Vietnam has been conducting more mangrove reforestation than any other country (Field, 2000), the Government of Vietnam has funded mangrove rehabilitation in recent decades, and recently approved VND2.4 trillion (US$120 million) to finance the national plan for mangrove development and rehabilitation for the period 2008-2015 (MARD, 2008, see section 3.2). The efforts of re-forestation began in 1975 after the country's reunification. This movement was kicked off again at the beginning of the 90s, resulting in a recovery of nearly 53,000 ha of mangrove forests.

Non-governmental organizations (NGOs) supported mangrove restoration projects in 8 Northern and North Central provinces from 1991-2002, restoring approximately 14,000 ha (FAO, 2007). For the past recent years, NGOs such as Red Cross of Denmark and Japan and CARE International have sponsored the additional plantation of mangrove forests with aims to overcome natural disasters and generate livelihoods especially in the Northern and Central provinces. The area of plantations mainly includes such species as *Kvaelia obovata*, which is grown in narrow belts (100-1,000 m wide), along the coastline and in between the sea and sea dykes. The World Bank-funded Wetland Development and Protection Programme afforested 4,662 ha mangroves (McNally *et al.,* 2010) in the Mekong Delta for the period 2004–2007.

ANNEX II: OVERVIEW OF MPA SYSTEM IN VIETNAM

MPA's Importance to Vietnam

Vietnam has a marine area 3 times as large as its terrestrial area and including more than 3,000 islands, mainly founs in offshore coastal areas. Vietnam's coastline stretches for more than 3,260 km (excluding islands). In terms of administration, Vietnam has 28 provinces and centrally-run cities stretching along the coast from Quang Ninh province in the North to Kien Giang province in the South, including 12 island districts with around 240,000 residents living on 66 islands.

Vietnam's seas, coastal areas and islands provide habitat for many aquatic species, water birds, migratory birds and island fauna and flora, and also are an ideal living environment for humans. Approximately 11,000 species have been discovered so far living in more than 20 types of typical sea and coastal ecosystems of 6 different sea biodiversity regions in Vietnam.

Benefits from the sea are very significant, but its ecosystems are facing higher threats and risks from human interventions and natural disasters. Therefore, the Government has been concerning and promoting the marine conservation since very early. One of the conservation activities is to establish and manage the marine protected areas system (MPA)

The MPA system was established, not only contributing to ensuring ecological balance, biodiversity conservation, harmonization of environment and aquatic breeds but also having great significance to the long-term economic development, to scientific research, public education, recreation and ecotourism as well as to the sovereignty of national waters.

The MPA system in Vietnam

The Prime Minister approved an MPA plan on May 26, (Decision No.742 /QD-TTg) to include16 MPAs by 2020 (Table 6). These MPAs cover an area of approximately 270,271 hectares, accounting for 0.24% of Vietnam's waters. There will be approximately 70,000 hectares of coral reefs and 20,000 hectares of seagrass beds and a part of mangroves, large area of spawning grounds and habitat of aquatic species, nearly 100 endemic and endangered species managed within MPAs by 2020. The first national MPA system is representative for the entire country's waters and, if well-managed, an "ecological balance" could be achieved in some area. By 2020, the water area shall continue to be expanded for conservation.

Table 6: List of 18 MPA in the plan by 2020

No	Title of MPA	Class/category following IUCN	Total area/marine area (ha)
1	Tran island / Quảng Ninh	III	4,200/3,900
2	Cô Tô island / Quảng Ninh	II	7,850/4,000
3	Cát Bà/ Hải Phòng	I	20,700/10,900
4	Bạch Long Vĩ / Hải Phòng	III	20,700/10,900

5	Hòn Mê / Thanh Hóa	III	6,700/6,200
6	Cồn Cỏ / Quảng Trị	II	2,490/2,140
7	Sơn Chà-Hải vân / Thừa Thiên-Huế	II	17,039/7,626
8	Cù Lao Chàm / Quảng Nam	I	8,265/6,716
9	Lý Sơn / Quảng Ngãi	III	7,925/7,113
10	Nha Trang gulf / Khánh Hòa	I	15,000/12,000
11	Nam Yết island / Khánh Hòa	II	35,000/20,000
12	Núi Chúa/Ninh Thuận	I	29,865/7,352
13	Phú Quý island/ Bình Thuận	III	18,980/16,680
14	Hòn Câu/ Bình Thuận	II	12,500/12,390
15	Côn Đảo / Bà Rịa-Vũng Tàu	I	29,400/23,000
16	Phú Quốc / Kiên Giang	I	33,657/18,700
Total area			**270,271/169,617**

Out of the total 16 planned MPA, 6 MPA relate to special use forest (table 7) and the remaining 10 MPA is not related to special use forest (table 8).

Table 7: Approved MPAs relate to SUF

No.	**MPA title**	**Province, City**	**Class**	**Proposed area (ha)**	
				Inland	**Sea**
1	Cát Bà island	Hải Phòng	NP	20,700	10,900
2	Hòn Mê island	Thanh Hoá	KDTT	6,700	6,200
3	Sơn Chà- Hải Vân	Thừa Thiên-Huế	PA	17,039	7,626
4	Cù Lao Chàm	Quảng Nam	NP	1,549	6,716

5	Núi Chúa	Ninh Thuận	NP	8,265	6,716
6	Côn Đảo	Bà Rịa-Vũng Tàu	NP	29,400	23,000

Table 8: Non-SUF related MPAs

No.	MPA title	Province, City	Class	Planned area (ha)	
				Inland	Sea
1	Trần island	Quảng Ninh	KDTT	4,200	3,900
2	Cô Tô island	Quảng Ninh	KBTL	7,850	4,000
3	Bạch Long Vĩ island	Hải Phòng	KDTT	20,700	10,900
4	Cồn Cỏ island	Quảng Trị	KBTL	2,490	2,140
5	Lý Sơn island	Quảng Ngãi	KDTT	7,925	7,113
6	Nha Trang gulf	Khánh Hoà	NP	15,000	12,000
7	Nam Yết island	Khánh Hoà	KBTL	35,000	20,000
8	Phú Qúy island	Bình Thuận	KDTT	18,980	16,680
9	Hòn Câu island	Bình Thuận	KBTL	12,500	12,390
10	Phú Quốc island	Kiên Giang	NP	33,657	18,700

Threats to biodiversity recession in MPAs

a) MPA recession

As reported by the World Resources Institute (2002), about 80% of Vietnam's invaluable marine assets as coral reel ecosystems, seagrasses and mangroves are at risk, 50% of which was warned to be at a high risk. Seagrass beds are also a sensitive ecosystem and very vulnerable to habitat change. Before 1997, the area of 39 known seagrass beds was 10,768 hectares, by 2003 this had decreased to only 4,000 hectares, equivalent to a loss of 60% with approximately 960 ha/year on an average (equivalent to 8%).

In recent years, nearly 200 near-shore coral reefs have been surveyed in Vietnam, indicating bad conditions. In general, coral reef in the North of Vietnam has decreased by approximately 25-50%. Based on IUCN criteria, only about 1% of reefs which were surveyed in the south of Vietnam are still in

a very good condition; approximately 31% of coral reef is in a bad condition and 41% and 26% of coral reefs are in relatively good or good condition, respectively (Table 9).

b) Major threats to marine and coastal ecosystems in Vietnam

- Over-exploitation: Considered to be the most serious impact on marine and coastal ecosystems. In recent years, rapid economic development has increased the resource needs for domestic and export markets.

- Destructive exploitation: Aiming to increase the efficiency of exploitation in case of declining natural resources, destructive methods (explosives, poisons, small-mesh nets, electric fishing) have been used by fishermen in coastal areas.

Marine resources in coastal waters have are over-exploited. The total fishing production continues to grow, however the catch per a unit of fishing effort (CPUE) decreased from 0.92 to 0.34 tons/CV/year (2005); the percentage of lower value “trash fish” is increasing. The production and productivity of commercial fishing grounds has fallen 2-6 times. Some specialties such as abalone (*Haliotidae, Panopea generosa* and *Perna viridis*) are at risk of being depleted.

Tourism is beyond effective control: Tourism is targeted to be one of key economic sectors in coastal provinces. However, one of the biggest impacts is to increase the demand for souvenirs, which leads to wildlife exploitation. Many rare and endangered animal species are easily found in markets, particularly in busy tourist destinations such as Nha Trang and Vung Tau. Sea turtles (hawksbill, green turtles) are hunted and illegally traded. Species used for making handicrafts such as clams and snails, sea-urchin, etc. are now rarely found on coral reefs. Tourism also might lead to increased direct impacts caused by anchoring, waste release from tourist cruises, and an increased number of fishing boats.

- Marine pollution tends to increase: 40-60% of marine pollution originates from inland activities (2010). New construction and expansion of sea ports and high intensity of vessels have increased the pollution risk in coastal waters, especially oil pollution and oil spills. Pollution has changed habitat conditions of ecosystems and the quality of marine and coastal habitats, affecting life of species and pushing marine and coastal environment into harsher conditions inconvenient to ecological behaviours of species and populations.

- Natural disasters regularly occur and cause strong impacts: In case of marine and coastal ecosystems, such natural disasters as hurricanes, floods, coastal flooding have very significant impacts. Vietnam annually is hit by 7-8 hurricanes, causing serious danger to reef ecosystems. Such storms can destroy coral reefs in shallow areas. In case of the sea level rise, about half of 68 wetlands will be heavily affected and saltwater will deeply penetrate into the coastal lowlands, killing many species of freshwater plants, affecting freshwater supply for daily life routines and irrigation activities in coastal areas. Around 36 protected areas, including 8 national parks and 11 nature reserves will be flooded.

Shortcomings of resources for ecosystem management: The financial resources provided for coastal ecosystem management in Vietnam are inadequate. The funds allocated from various sources are not enough for the fundamental activities of management. Those protected areas which are not national parks have even lower budgets. Due to limited financial and human resources, natural resources management is not effective. Furtherrmore, poor infrastructure and equipment, low awareness of staff working in conservation and management of marine resources and lack of communities’ involvement in the planning and management of protected areas have contributed to limitations in management.

MPA distribution in Vietnam (according to plan to 2020) is indicated in diagram 1

Diagram 1: Distribution of 16 MPAs in Vietnam
(According to the plan to 2020)

Mangroves for the Future
INVESTING IN COASTAL ECOSYSTEMS
www.mangrovesforthefuture.org

About Mangroves for the Future

Mangroves for the Future (MFF) is a unique partner-led initiative to promote investment in coastal ecosystem conservation for sustainable development. Co-chaired by IUCN and UNDP, MFF provides a platform for collaboration among the many different agencies, sectors and countries which are addressing challenges to coastal ecosystem and livelihood issues. The goal is to promote an integrated ocean-wide approach to coastal management and to building the resilience of ecosystem-dependent coastal communities.

MFF builds on a history of coastal management interventions before and after the 2004 Indian Ocean tsunami. It initially focused on the countries that were worst affected by the tsunami -- India, Indonesia, Maldives, Seychelles, Sri Lanka and Thailand. More recently it has expanded to include Bangladesh, Cambodia, Pakistan and Viet Nam.

Mangroves are the flagship of the initiative, but MFF is inclusive of all types of coastal ecosystem, such as coral reefs, estuaries, lagoons, sandy beaches, sea grasses and wetlands.

The MFF grants facility offers small, medium and large grants to support initiatives that provide practical, hands-on demonstrations of effective coastal management in action. Each country manages its own MFF programme through a National Coordinating Body which includes representation from government, NGOs and the private sector.

MFF addresses priorities for long-term sustainable coastal ecosystem management which include, among others: climate change adaptation and mitigation, disaster risk reduction, promotion of ecosystem health, development of sustainable livelihoods, and active engagement of the private sector in developing sustainable business practices. The emphasis is on generating knowledge, empowering local communities and advocating for policy solutions that will support best practice in integrated coastal management.

Moving forward, MFF will increasingly focus on building resilience of ecosystem-dependent coastal communities by promoting nature based solutions and by showcasing the climate change adaptation and mitigation benefits that can be achieved with healthy mangrove forests and other types of coastal vegetation.

MFF is funded by Sida, Norad and Danida.

Learn more at: www.mangrovesforthefuture.org