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SOCIALIST REPUBLIC OF VIETNAM

MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT

Vietnam: Forest Sector Modernization and Coastal Resilience Enhancement Project

ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK

(Final)

March 2017

ABBREVIATIONS

CPC	Community People's Committee
CSC	Construction Supervision Consultant
CFB	Community Forest Board
CFM	Community Forest Management
CSO	Civil Society Organization
DARD	Department of Agriculture and Rural Development
DONRE	District Office of Natural Resources and Environment
DPC	District People's Committee
EA	Environmental Assessment
ECOP	Environmental Code of Practice
EHS	Environmental, Health, and Safety Guidelines
EIA	Environmental Impact Assessment
EM	Ethnic Minority
EMC	Environmental Monitoring Consultant
EMDP	Ethnic Minority Development Plan
EMPF	Ethnic Minority Policy Framework
EPP	Environmental Protection Plan
ESIA	Environmental and Social Impact Assessment
ESMP	Environmental and Social Management Plan
ESMF	Environmental and Social Management Framework
ESO	Environment and Social Safeguard Officer
FCPF	Forest Carbon Partnership Facility
FMCR	Forest Sector Modernization and Coastal Resilience Enhancement
FPIC	Free, Prior, and Informed Consultation
FSC	Forest Stewardship Council
GOV	Government of Vietnam
GRM	Grievance Redress Mechanism
GRS	Grievance Redress Services
HH	Households
IEMC	Independent Environmental Monitoring Consultant
IMC	Independent Monitoring Consultant
IPM	Integrated Pest Management
ISP	Integrated Spatial Planning
MARD	Ministry of Agriculture and Rural and Rural Development
MBFP	Management Board for Forestry Projects
MONRE	Ministry of Natural Resources and Environment
OP/BP	Operation Policy/Business Procedure (of the World Bank)
PAP/PAH	Project Affected Person/Affected Household
PBFP	Provincial Board for Forestry Projects
PCR	Physical Cultural Resources
PF	Process Framework
PFES	Payments for Forest Ecological Services
PFMB	Protection Forest Management Board
PMU	Project Management Unit
PMF	Pest Management Framework
PIM	Project Implementation Manual
PMP	Pest Management Plan
PPMU	Provincial Project Management Unit
PPD	Plant Protection Department
PPPD	Provincial Plant Protection Division
PPC	Provincial People's Committee
PSC	Project Steering Committee

PPSC	Provincial Project Steering Committee
RAP	Resettlement Action Plan
RPF	Resettlement Policy Framework
SA	Social Assessment
SESA	Strategic Environment and Social Assessment
SFM	Sustainable Forest Management
SEO	Safeguard and Environmental Officer
SMEs	Small and medium enterprises
SPO	Subproject Owner
SUF	Special Use Forest
SUFMB	Sustainable Utilization of Forest Management Board
UXO	Unexploded Ordnance
VDIC	Vietnamese Disclosure of Information Center
WB/IDA	The World Bank

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INTRODUCTION

1.1 Project Overview

1. Vietnam's vulnerability to climate change from sea level rise and storms/typhoons underscores the importance of the country prioritizing measures to adapt/augment resilience to climate change. In Vietnam, forests are a means for delivering 'multipurpose' adaptation measures and coastal forests are considered ecological systems that can deliver on both adaptation and economic benefits when they are well planned and protected. For poorer households in some of the vulnerable coastal communes, mature coastal forests can lower their exposure to climate risks and reduce their vulnerability by providing them with a means of generating income. At the same time, coastal forests can be part of low-cost measures to help respond to climate change - such as emergency spillways, forest plantation and rehabilitation in river basins and along the coast. They offer a non-physical infrastructure measure that can be used for preventive purposes.

2. The Government of Vietnam (GoV) through the Ministry of Agriculture and Rural Development (MARD) has been preparing an investment project, namely the Forest Sector Modernization and Coastal Resilience Project (FMCRP or the Project), with an aim *to improve coastal forest management in the selected provinces.* The project will work in communes in eight provinces - Quang Tri, Thanh Hoa, Nghe An, Ha Tinh, Quang Binh, Thua Thien Hue, Quang Ninh and Hai Phong. The last two provinces are in the Red River Delta (RRD); the first six provinces are coastal provinces in the north central region. These provinces have approximately 400km of coastline (12 percent of Vietnam's total coastline).

3. The project tackles the three elements that are central to successful restoration of coastal forests both during and beyond the life of the project: (i) putting in place conditions to maintain the needed inputs and financing to restore coastal forests that can help reduce exposure to storm surge and sea level rise, (ii) the silvicultural practices and structures need to extend and manage coastal forests and augment their survival, and (iii) improving the economic rationale for protecting and maintaining the coastal forests.

4. The Project is being proposed for possible financing by the World Bank (WB) over a period of 6 years (2018-2024) with the financing of US$ 180 million ($150 million from IDA; $30 million from GoV). MARD and the Provincial People's Committees (PPCs) are the line agencies responsible for overseeing the implementation of the Project. MARD will assign the Management Board for Forestry Projects (MBFP) to be the Project owner at central level and responsible for providing implementation supports and management of the overall Project. The PPCs will assign its Department of Agriculture and Rural Development (DARD) to be subproject owner and responsible for implementation of subprojects and/or activities at provincial level. The Project component and description are described in Section 2.

1.2 Purpose of the ESMF

5. The proposed project adopts a programmatic approach consisting of subprojects and other investment activities that will be prepared during implementations, and specific sub-project sites could not be identified by appraisal. To comply with the WB's Operational Policy on Environmental Assessment (OP/BP 4.01), preparation and disclosure of an Environment and Social Management Framework (ESMF) is required before WB appraisal. This is to ensure that the proposed project has a concrete plan and process in place to avoid, minimize, and/or mitigate adverse environmental and social impacts of project investments and interventions when they are identified, planned, and implemented.

6. The FMCRP is classified by OP/BP 4.01 as Environmental Assessment Category B and seven of the ten WB safeguard polices are triggered (see Section 3). All the subprojects and/or activities will be

required to screen for eligibility for financing and potential negative impacts and an Environmental and Social Management Plan (ESMP) will be prepared to mitigate them including application of Environmental Code of Practices (ECOP) in all contracts. The ESMF describes policies, procedures, and processes to be considered and followed during the implementation of the proposed Project.

7. The specific objectives of this ESMF are:

- To assess the potential environmental and social impacts of the proposed project, (both positive or negative) and propose mitigation measures which will effectively address negative impacts;
- To establish clear procedures for the environmental and social planning, review, approval and implementation of subprojects to be financed under the project;
- To specify appropriate roles and responsibilities, and outline the necessary reporting procedures, for managing and monitoring environmental and social concerns related to subprojects;
- To determine the training, capacity building and technical assistance needed to successfully implement the provisions of the ESMF;
- To address mechanisms for public consultation and disclosure of project documents as well as redress of possible grievances; and
- To establish the project funding required for implementing the ESMF.

1.3 Scope of the ESMF

8. Following the *Vietnam In-Country Technical Guidance Note: Environmental and Social Management Framework Toolkit for World Bank-Financed Projects in Vietnam (February 2015)*, the ESMF describes the project description (Section 2); the policy, legal, and administrative framework (Section 3); the potential project environmental and social impacts (Section 4); measures to manage these environmental and social impacts (Section 5); the procedures for review, clearance, and implementation (Section 6); the ESMF implementation arrangements (Section 7); capacity building, training, and technical assistance (Section 8); ESMF implementation budget (Section 9); grievance and redress mechanism (Section 10); and ESMF consultation and disclosure (Section 11). There are 7 annexes providing brief information on Project locations and environment and social conditions of Project area (Annex 1); Safeguard screening, assessment, and guidelines for preparation of ESMP and ECOP (Annexes 2, 3, and 4); ESMP monitoring and grievance registration (Annex 5), Organization responsibility (Annex 6); and Summary of consultation conducted during the ESMF preparation (Annex 7).

9. The ESMF was developed based on desk reviews of the government relevant laws and regulations, various reports and documents related to environmental and social conditions in the proposed provinces, and field visits to some of the proposed subprojects sites, including meetings with local authorities and communities.

10. In addition to the ESMF, there are two other related safeguard instruments which will be applied during implementation of the proposed project. The *first* is the Resettlement Policy Framework (RPF) which provides guidelines for preparation and execution of a Resettlement Action Plan (RAP) in compliance with the Bank Policy on Involuntary Resettlement (OP/BP 4.12) and it will be applied when sub- project and/or activities involve land acquisition, resettlements, and/or limited access to natural resources. The second instrument is the *Ethnic Minority Policy Framework* (EMPF) which provides guidelines for undertaking *free, prior and informed consultation* with ethnic minorities in the project area and the preparation of Ethnic Minority Development Plan (EMDP) in compliance with Bank Policy on Indigenous Peoples (OP/BP 4.10). The EMPF will be applied when the sub-project and/or activities and/or subprojects are implemented in area inhabited by ethnic minorities that meet

the definitions of OP/BP 4.10. The safeguard screening and preparation of ESMPs, RAPs, and EMDPs for the subprojects will be carried out during implementation. These instruments are presented separately.

PROJECT DESCRIPTION

1.4 Project Objective and Results Indicators

11. The project development objective (PDO) is to improve coastal forest management in the project provinces. This achievement will be measured from the following 3 results indicators:

- Area of coastal forest restored and managed according to agreed criteria
- Area managed under agreements/contracts signed with local community groups for management of coastal forests
- Share of targeted beneficiaries with rating 'Satisfactory' or above on project interventions, disaggregated by gender

1.5 Project Target Area and Description

12. The Project will be implemented in three regions, covering two provinces in the Red River Delta (Quang Ninh and Hai Phong), three provinces the North Coastal Region (Thanh Hoa, Nghe An, and Ha Tinh), and three provinces in the Central Coastal Region (Quang Binh, Quang Tri, and Thua Thien Hue). These provinces have about 400 kilometers (km) of coastline (12 percent of Vietnam's total coastline) and are important for Vietnam's economic growth, home to a number of poor population, and considered most vulnerable to climate events. Therefore, building natural ecosystem systems and capacity building of local community is considered necessary for reducing the exposure of coastal communities to flood events and other natural disasters. The Project areas are briefly summarized below while description and key characteristics of each province are briefly provided in *Annex 1.*

- *Subregion 1 (KV1): Includes Quang Ninh province and Hai Phong city.* Coastal protection forests in this area are mainly mangroves. Hilly terrain and island plays a key role and therefore mangrove tree grows on rocky soil with poor nutrient provided from internal river systems. This region has a tropical monsoon climate, with cold and wet winter season. The lower temperate in the winter season plays an important role in influence on the crop growth and the abundance of mangrove species. Mangrove species have biomass distributions across narrow areas and discontinuous in the coastal zone from Tien Yen district to Mong Cai city (Quang Ninh province), Thuy Nguyen district (Hai Phong city) and in some islands such as Cat Ba and Quan Lan etc. Mangrove species include: *Avienia alba, Aegiceras corniculatum, Rhizophorastylosa, Bruguiera gymnorrhiza, Kandelia candel, Endospermun chinense, etc.*
- *Subregion 2 (KV2): The North Central region, including Thanh Hoa, Nghe An and Ha Tĩnh provinces.* The topography of this area is characterized by the short alluvia sunken bows interspersed with small capes or segments of eroded cliff as a result of the effect of waves. The average drainage density of the river network is relatively high of 1 km/km^2. Rainy season flows were 3 - 4 times higher than flows in the dry season. The wind and waves are main climatic and hydrological factors that impacts on coastal forests. The brackish plants are mainly distributed in the areas that far from the estuary about 100 - 300 meters. Mangrove species include *Rhizophora stylosa, Bruguiera gymnorrhiza, Avicennia alba, Aegiceras corniculatum, Kandelia candel, Pandanus tonkinensis, Endospermum chinense, etc. Casuarina equisetifolia* distributes on sandbanks that are near to the coast.
- *Subregion 3 (KV3): Quang Binh, Quang Tri, and Thua Thien Hue.* The area is a narrow strip of land with its complex topographical conditions. The mountain ranges reach out to sea in some places. Conversely, somewhere is characterized by striking coastal forms as a result of effects of

the sea dynamic, such as high and wide sand dunes or lagoons. Rivers in this area are normally short and steep with less sediment amount. This region is characterized by high rainfall (approximately more than 2,500 mm per year) and is strongly impacted by wind and typhoon. Coastal sand forests are mainly plantation of *Casuarina equisetifolia and Acacia auricliformis.* Mangrove vegetation located in the tidal estuaries with dominant species of *Rhizophora stylosa, Bruguiera cylindrica, Bruguiera gymnorrhiza; and Kandelia candel, Aegiceras corniculatum and Acanthus ilicifolius* in the lower layer. There are species of *Thespesia populnea, Cerbera odollam Gaertn, Endospermum chinense, Kandelia candel etc.* in the high tide wetlands. Mangrove vegetation species in the lagoons are abundant with *Sonneratia caseolaris, Aegiceras corniculatum, Rhizophora stylosa, Bruguiera gymnorrhiza, Kandelia candel, Acanthus ilicifolius.* In addition, there are *Rhizophora apiculta Bume, Avicennia alba, Sonneratia alba.*

16. *Potential Subproject Sites:* During the prefeasibility study, data collection and survey were conducted and the potential subproject sites were identified [1] and the proposed target Project communes/districts are shown in *Table 1.1* below.

Table 1.1. Evaluation results of the target Project areas

Region	**No.**	**Provinces/ Cities**	**Results of evaluation**
KV1	1	Quang Ninh	**45 project communes with the area of 24,434 ha, of which**: - The proportion of project area managed by CPC is 51.1% - The proportion of project area managed by PFMB is 38.0% - The proportion of project area managed by households and other organizations is 10.9%
KV1	2	Hai Phong	**12 project communes with the area of 4,993 ha, of which:** - The proportion of project area managed by CPC is 99.0% - The proportion of project area managed by households is 1.0%
KV2	3	Thanh Hoa	**27 project communes with the area of 3,273 ha, of which:** - The proportion of project area managed by CPC is 45.7% - The proportion of project area managed by PFMB is 36.5% - The proportion of project area managed by households, communities and other organizations is 17.8%
KV2	4	Nghe An	**38 project communes with the area of 6,991 ha, of which:** - The proportion of project area managed by CPC is 17.4% - The proportion of project area managed by PFMB is 69.7% - The proportion of project area managed by households, communities and other organizations is 12.8%
KV2	5	Ha Tinh	**46 project communes with the area of 8,861 ha, of which:** - The proportion of project area managed by CPC is 16.3% - The proportion of project area managed by PFMB is 68.9% - The proportion of project area managed by households and communities is 14.8%
KV3	6	Quang Binh	32 project communes with the area of 4.236 ha totally managed by CPC (100%)
KV3	7	Quang Tri	**25 project communes with the area of 7,917 ha, of which**: - The proportion of project area managed by CPC is 97.9% - The proportion of project area managed by households, communities and other organizations is 2.1%

[1] The selection criteria used are forest ownership, level of geographic adjacency, locations of project areas, target forestry areas in difficult communes, areas have risks of being affected by natural disasters, importance of protection forest, and access to subproject areas.

KV3	8	Thua Thien Hue	**32 project communes with the area of 11,376 ha, of which:** - The proportion of project area managed by CPC is 23.0% - The proportion of project area managed by PFMB is 64.4% - The proportion of project area managed by households, communities and other organizations is 12.6%
Sources: The Pre-Feasibility Study Report of the FMCR, Sub-FIPI, 2016			

1.6 Project Components

13. The Project activities will be implemented through the following four components --three technical and one project management. The summary described in following paragraphs.

Component 1: Enabling Effective Coastal Forest Management

14. **This component will support the development and implementation of scalable procedures and tools to improve coastal forest management.** The activities associated with this component will build the technical knowhow and make investments needed to modernize the approaches used to address the three key constraints – overlapping spatial plans, lack of adequate supply of quality seedlings and long-term financing for managing coastal protection forests.

15. *Subcomponent 1.1: Modernizing Coastal Forest Planning.* this subcomponent will finance consultancies to deliver key inputs for improving planning. It will transfer the technical capacity to DARDs and district and commune level sectoral entities on effectively developing and coordinating spatial plans. It will also promote the use of the latest technology and data for developing visualizations of current and proposed plans. The approaches for integrated spatial planning will be demonstrated in three administrative units and tools for the replication of the approach will be disseminated more widely.

16. *Subcomponent 1.2: Expanding Quality Seedling Production (US$ M).* This subcomponent will finance physical works, goods and equipment and technical consultancies for expanding production of quality seedlings. This includes support for: (i) high technology seedling production at three regional units distributed across the project area, and (ii) transfer of skills for seedling production and nursery management to additional seedling producers. The subcomponent will also identify optimal ways for expanding partnerships (among technical experts and seedling producers) for improved seedling production. It will assist in fostering linkages between smallholder nurseries and buyers. The activities will include technical support to comply with the seedling quality certification requirements.

17. *Subcomponent 1.3: Broadening Payments for Forest Ecosystem Services to Coastal Forests*. This subcomponent will finance primarily consultancies that assist with obtaining market-based financing for management of coastal protection forests. It will contribute to operationalizing payments for ecosystem services (PFES) from coastal forests – specifically services of relevance to aquaculture, spawning and carbon sequestration. The activities will support more widespread usage of techniques for valuation of the provisioning and regulatory services from coastal forests. This will include: (i) applying methods for estimating the role and value of natural habitats in coastal protection; (ii) reducing data gaps; (iii) preparing forest and ecosystem accounts as appropriate. The subcomponent will also support the implementation and promotion of a scalable PFES scheme in coastal protection forests.

Component 2: Coastal Forest Development and Rehabilitation

18. This component will finance all the activities related to restoring coastal forests. This will include planning activities, technical design of the planting activities, implementation of protection, enrichment planting and protection, goods, inputs, and works for minor physical structures that will augment the effectiveness of coastal forests in coastal protection and increasing the survival rate of the

coastal forests. The objective of this component is to increase area of the coastal forest in participating provinces in areas where these forests can be useful for coastal protection. The MARD targets for this component include: 50,000 ha of coastal forests protected; 10,000 ha of coastal forests rehabilitated; 5,000 ha of mangroves planted; 4,000 ha of sandy soil forest planted. The specific sites for planting and protection of coastal forests in each province were selected based on the following criteria: Specified for coastal forests in the sectoral master plan and provincial land use plan provided by DARD, and the forest inventory; land ownership/use and vulnerability to weather; adjacency of coastal forests. In the proposed project design, the investments will be spread across 257 communes in 47 districts. The implementation of this subcomponent will give priority to protecting existing stands of coastal forests followed by carrying out enrichment planting. These priority activities will be implemented while conducting site assessments for the new plantation areas. The implementation of new plantation and enrichment planting activities will also be done based on a prioritization of the areas. The latter is determined using information on three factors: Vertical and horizontal distance from the coast; Level of difficulty for planting (this refers to the site conditions); Availability of seedlings and suitable land (the latter applies for mangrove plantation). Planting activities will occur land areas where there is evidence that coastal forests (i.e., mangroves and sandy soil forests) existed before.

19. *Subcomponent 2.1 Planting and Protecting target coastal forests.* This subcomponent would finance all the necessary steps to implement two activities: (i) protect existing stands of coastal forests, and (ii) plant and tend existing stands of coastal forests. As noted above, areas for planting (both enrichment and reforestation) have also been identified in the administrative areas of 257 communes in 47 districts. The planting activities will be phased and priority will be given to the sites noted in Table A above. The activities supported by this subcomponent will include:

a) Detailed site assessment to determine the suitability of the proposed areas for planting coastal forests.

b) The design of forest plantations and rehabilitation/enrichment, drawing on the legal basis for the design of forest plantation and rehabilitation which the activities in the component will have to adhere. The design of forest plantations will adopt some new scientific advances that are known to have generated good results in situations similar to those in the project area.

c) The organization of labor, materials, and works for implementing the planting design.

d) Close examination of procured seedling quality.

e) Activities for protection that would be similar to those listed above, and additional activities to put in place a long-term contract with the local communities involved in protecting the forests (e.g., organizing households, awareness raising and so on).

20. This subcomponent will also finance activities related to community based forest management. This will include providing community groups with assistance to obtain long-term management contracts with the forest management boards. These management contracts are expected to include specifics on use and access rights and benefit sharing.

21. Subcomponent 2.2: Augmenting Survival and Effectiveness of Coastal Protection Forests. This subcomponent will support additional structural measures are often required to increase the survival rates of the planted materials. The type of structures that will be necessary in the project area are determined by stratifying the area by the hydrological boundary conditions and then using other key parameter (which are elaborated in Annex 1 of the Project Appraisal Document - PAD). This subcomponent will, therefore, support investments in structures that reduce the exposure and vulnerability of these forests to the forces of the sea (waves and tidal currents). The investments can also be for structures that would assist with improved tending of newly planted forests, reducing the

likelihood of degradation caused by pests or animals. These structures would also lower the probability of illegal activities as it would enable the local stakeholders to effectively monitor the forests.

22. This subcomponent, will also finance minor improvements of existing physical structures that complement coastal forests in protecting coastal communities. This will be done only in a few locations following detailed analyses, including assessment of alternatives.

23. The subcomponent will finance all the activities for building the needed structures. This will include any site and construction assessments beyond what is conducted in subcomponent 2.1, design, materials, equipment, labor & works for the structures. An indicative allocation of the budget by province is noted below and a more accurate allocation will be known following the site assessments.

Component 3: Generating Sustainable Benefits from Coastal Forests

24. Motivating local support for the protection of coastal forests beyond the lifetime of the project will require interventions that boost the economic benefits from coastal forests to a range of stakeholders - communities, local households, small enterprises, the communes and districts. In the Mekong Delta region, households and small enterprises have generated revenue from coastal forests through integrated aquaculture practices. Efforts to restore coastal forests in the Mekong Delta have also generated jobs and boosted sources of revenue local government helping justify the investments to the Provincial People's Committee. There also have been projects piloting PFES from the aquaculture and tourism sector (two sectors that can contribute to PFES funds). The approach adopted in the target provinces aims to promote competition and considers the changing sectoral and demographic dynamics in the region. It will, to the extent possible promote, through partnerships and vertical linkages, market oriented opportunities to earn income that are comparable to other income generating occupations. The interventions will provide support at two levels – (i) productive partnerships between local communities and private entities that will focus on value addition, and (ii) upgrading of productive infrastructure (minor infrastructure) that would enable the local areas (communes) to support revenue generation from the investments.

25. *Subcomponent 3.1: Investment Packages for Generating Benefits from Coastal Forests*. The investment packages for community groups aim to assist them to develop a productive partnership with private enterprises that is a long-term, voluntary and commercial relationship that supports the implementation of business partnerships and detailed investment plan and helps participating partners to improve their competitiveness in the value chain (i.e., better price, lower costs, improved productivity and quality and increased sales volume). Project support would be provided for approximately 225 number of packages via a competitive grant. The grant can be used for eligible expenditures such as advisory services and training in support of local community organizations' members and the business partner. The grant could also be used for goods, materials and works to improve production and productivity and any post-harvest processing undertaken in a partnership involving an association of smallholder agriculture households (or coastal communities) or community organizations for integrated aquaculture practices, non-timber forest products, or other activities that draw on goods and services from the coastal forests.

26. The competitive grant will be allocated on the basis of a competitive selection process utilizing transparent appraisal procedures specifically designed and established to result in the selection of commercially viable productive partnerships and business plans. The competitive grants will be a one-time, non-refundable, and interest-free financing. The grant could be used to partially defray the costs of investments associated with approved productive partnership business plans (this is explained in more detail in Annex 1 of PAD). Any residual funding for the envisaged investments must be mobilized by the partnership either from their own resources or by mobilizing additional resources from sources of commercial credit. The matching grants is not a cash transfer to a partnership and will only be disbursed on the basis of eligible and approved expenditures.

27. Within the targeted districts, investment packages will be available for improved profitability of low-input aquaculture (referred to as extensive aquaculture in Vietnam – and involves integrating aquaculture with mangroves), climate-smart intensive aquaculture, and extensive livestock production. The specific type of support that could be offered through each of these packages is elaborated in Annex 1 of PAD

28. *Subcomponent 3.2: Demand Driven Productive Infrastructure.* This subcomponent would address some of the common critical infrastructure bottlenecks in the production, processing and marketing of goods and services from coastal forests. This could include minor upgrading of rural roads or other public productive infrastructure that would increase productivity and market efficiency – training centers, piers, signage, and so on. The funds for the productive infrastructure would be administered through a competitive grants program. Similar to the grants for subcomponent 3.1, there would be support for implementation of multiple steps in preparing and implementing the proposal for productive infrastructure. All sub-projects would be reviewed using pre-agreed criteria to assess the suitability of the proposed investment (these will be elaborated in the project manual). The applicants for the grant would be districts. The districts would need to apply in coordination with the communes and show a clear linkage in their proposal to the income generating activities of the local groups that are protecting coastal forests.

29. The objective of funds available for productive infrastructure would be to support investment opportunities. The investments should enhance economic benefits of protection of coastal forests to the commune. The investment should contribute to improving revenue generation, facilitate technology transfer and access to technical assistance. It could also help assist in managing any potential environmental impacts and ensure the protection of the coastal forests. The funded upgrades to infrastructure would complement investments made under other components by improving the condition critical public infrastructure and services.

30. The competitive grants would cover all the associated costs with the upgrading activities. The subcomponent would be administered at the provincial level. During the first year of the program there will be no investments, and the focus will be on setting up and administering the process of requesting expressions of interest.

Component 4: **Project Management and Monitoring and Evaluation**

31. This component will include the establishment of the organizational structure for project implementation; preparation of equipment, means and technical assistance. Activities would include refurbishing accommodations for the decentralized offices, vehicles, and a fully funded monitoring and evaluation system to track project progress and impacts, and provide feedback for project improvement throughout its tenure. The component would finance specialized training for MARD, provincial, district, and commune actors on themes such as co-management, integrated spatial planning, monitoring and evaluation and safeguards. This component will also finance recurrent costs such as the government staff and operating costs.

1.7 Anticipated Types of Project Activities

32. Component 1 focuses on (i) testing of guidelines and applications of tools for improving integrated spatial planning of coastal resources and its enforcement; (ii) expanding the system for delivering high quality seedlings through regional units, modern nurseries and improved outreach training; and (iii) a possible long-term financing system is tested and scaled out to the extent possible. Small civil works in construction of regional centers (with building structures, facilities, greenhouses) and planting areas preparation may be anticipated.

33. Component 2 will support investments related to restoring coastal forests. This will include planning activities, technical design of the planting activities, implementation of protection, enrichment

planting and protection, goods, inputs, and works for minor physical structures that will augment the effectiveness of coastal forests in coastal protection and increasing the survival rate of the coastal forests. The activities will include mainly planting of trees (including site preparation in mangrove and sandy soil areas using soft structures, bamboo…); Sea dyke rehabilitation and upgrading (no new dykes will be built, dykes are small and localized); putting up fences (brushwood, bamboo fences), breakwaters (localized, at the hotspots); small infrastructures (such as Forest protection regulation boards, Fire break, Forest protection stations, Fire watch towers); Construction of forestry roads; Dredging canals and creeks (small scale, localized); Repair culverts under dikes; Forest fire water points.

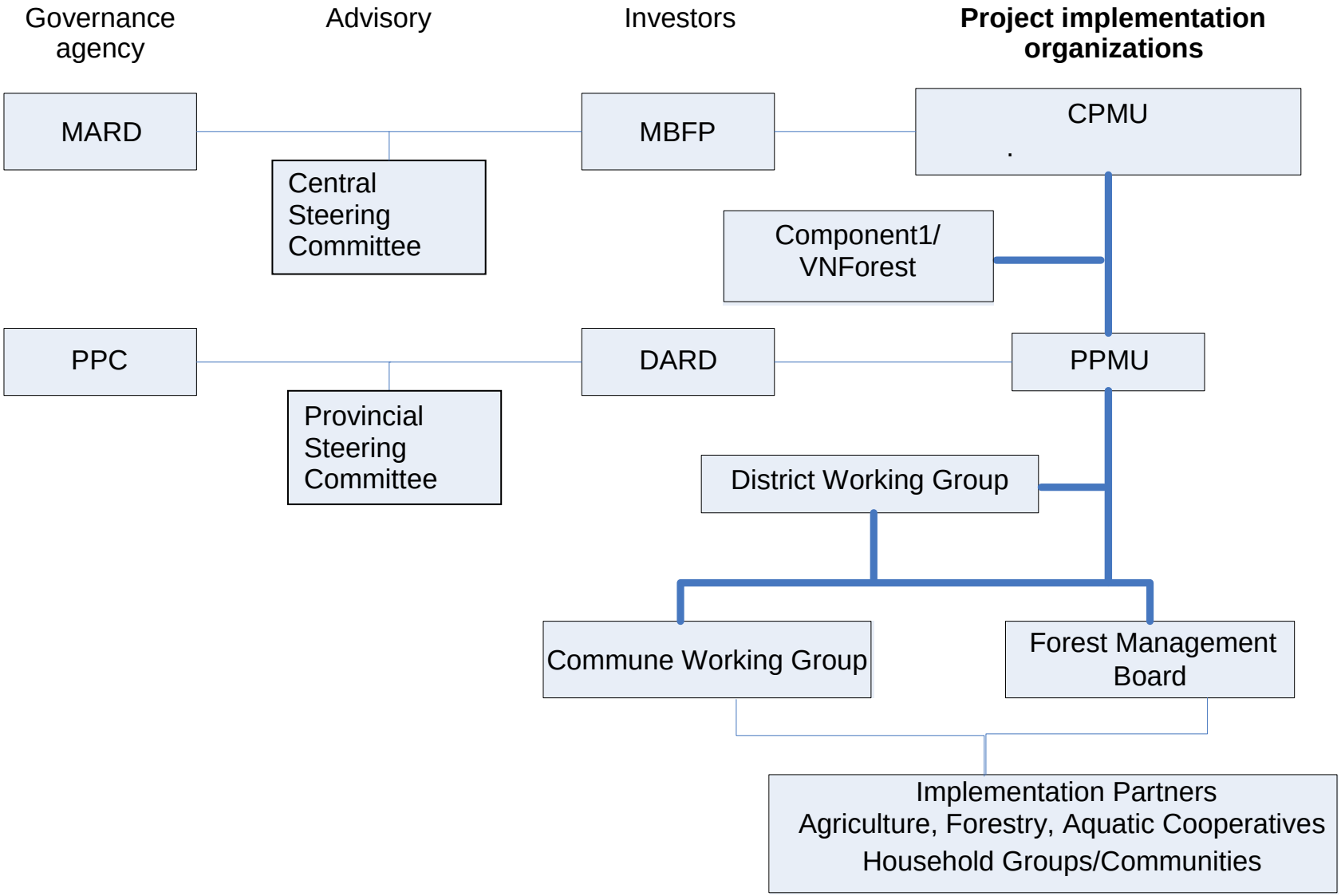
34. Component 3 of the project will support the generation of revenue from coastal forests through integrated aquaculture practices. The interventions will provide support at two levels – (i) partnerships for generating revenue from coastal protection forests (e.g., through extensive and certified aquaculture, and nature-based tourism) and (ii) upgrading of productive infrastructure (minor infrastructure) that would enable the local areas (communes) to support revenue generation from the investments. Subcomponent 3.1 provides grant for mostly purchase of equipment while subcomponent 3.2 includes construction of rural (forestry) roads, training centers, piers; putting up of signage; and improvement of irrigation system (for aquaculture).

1.8 Project Implementation Arrangements

35. MARD will be the primary executing agency for the project. MARD has extensive experience in implementing IDA-financed projects since 1995. MARD will work in close collaboration with relevant Ministries and agencies to implement the project. Project implementation will be guided by a Project Steering Committee (PSC), consisting of, at the central level, representatives of key Ministries such as MPI, MOF, MONRE, OOG, Provincial People's Committees and others as relevant, who will be responsible for facilitating the coordination among the key stakeholders, providing guidance, and ensuring alignment with the national policy framework.

36. MARD has been assigned by the government as the project owner and will be responsible for overall implementation, management, and coordination of the project. MARD has assigned the Management Board for Forestry Projects (MARD MBFP) in Hanoi to be responsible for overall implementation and management of the project, and will be the project owner of the activities to be executed at the central level, including technical assistance for the entire project; capacity building, procurement of goods and equipments for provinces; executing the activities involving more than one province and requiring complicated expertise. MBFP is responsible to coordinate with all stakeholders including donors, ministries and central agencies and provinces throughout the project implementation, supervising and monitoring the investment activities at provinces as mandated by public investment regulations. For these activities, MARD will use existing resources to establish a CPMU under the MBFP and create an advisory group comprising of agriculture, water, forestry, and aquaculture specialists from technical departments, and related research institutes. Component 1 is under the implementation responsibility of Vietnam Forest Administration (VNForest).

37. The CPMU, assisted by the advisory group, is responsible to work with and assist the project provinces to implement the project in accordance with the project design. CPMU is responsible for the preliminary review and quality check of the provinces' procurement and work plans before they are submitted to the Bank. In addition, the CPMU will be responsible for the overall project level administration, including oversight of procurement, FM, M&E, safeguards compliance and communications. (see figure below for the implementation arrangements).


Governance agency
Advisory
Investors
Project implementation organizations
MARD
Central Steering Committee
MBFP
CPMU
.
Component1/ VNForest
PPC
Provincial Steering Committee
DARD
PPMU
District Working Group
Commune Working Group
Forest Management Board
Implementation Partners
Agriculture, Forestry, Aquatic Cooperatives
Household Groups/Communities

38. *Provincial level*. Subprojects under Components 2 and 3 will be implemented by PPMUs in the respective provinces, under guidance from a Provincial Steering Committee set up to comprise representatives of provincial Departments (such as DPI, DOF, DONRE and District People's Committees). In each province, the Provincial People's Committee (PPC) will appoint an existing PPMU under DARD to be responsible for management and implementation of subproject activities including procurement, financial management, safeguards, coordination, and reporting.

39. At the *district and commune levels*, the District People's Committee (DPC), the Community Preople's Committee (CPC), the Protected Forest Management Board (PFMB), the Community Forest Management Board (CFMB), local communities, and private enterprices will play key roles during implementation of the subprojects. A CFMB will be established at each of the Project communes and will be tasked with signing contracts for forest plantation and protection with the household groups/communities and supporting the livelhoods planning and implementation at commune. CFMB members include selected staff of the communes and working on the part-time basis.

40. VNForest under MARD is the executing agency for Component 1 of the project. With the state management role being to provide advice to the Gov. and MARD on the policy issues in the Forest Sector, VNForest is best placed to implement the coastal forest related policies and those relevant to the sector restructuring. VNForest has appointed staff to be member of the project preparation team and will maintain adequate human resources for project implementation. VNForest will coordinate with CPMU and other technical departments and research institutes of MARD according to their mandates to implement the planned activities under Component 1.

POLICY, LEGAL, AND ADMINISTRATIVE FRAMEWORK

1.9 Applicable National Laws, Policies, and Regulations

41. In Vietnam, there are national laws, regulations, and policies related to implementation of environmental and social safeguards, as well as those on forest and mangrove management which are directly related to this Project. The sections below highlight the key laws, policies and regulations:

- Law on Environmental Protection No. 55/2014/QH13 of the National Assembly of Vietnam dated June 23, 2014. This law enacted policies and regulations on environmental safeguards, and rights and obligations of organizations, households and individuals related to environmental protection activities.
- Land Law No. 45/2013/QH13 of the National Assembly of Vietnam dated November 29, 2013 prescribes the regime of land ownership, powers and responsibilities of the State in representing the entire-people owner of land and uniformly managing land, the regime of land management and use, the rights and obligations of land users involving land in the territory of the Socialist Republic of Vietnam. Related are and Decree No. 43/2014/ND-CP dated 15/05/2014 of the Government regulations on detailing a number of articles of the Land Law; Decree No. 47/2014/ND-CP dated 15/05/2014 of the Government regulations on compensation, support and resettlement upon land recovery by the State; Decree No. 75/2012/ND-CP dated 03/10/2012 of the Government on detailing a number of articles of the Law on Complaints; The Circular No. 37/2014/TT-BTNMT dated 30/06/2014 of MONRE on detailing compensation, support and resettlement upon land acquisition by the State;
- Law on Natural Disaster Prevention and Control No. 33/2013/QH13 of the National Assembly of Vietnam dated on June 19, 2013 provides natural disaster prevention and control activities; specifies the rights and obligations of agencies, organizations, households and individuals engaged in natural disaster prevention and control activities; and details the state management of, and assurance of resources for, natural disaster prevention and control.

- Law on Water Resources No. 17/2012/QH13 of the National Assembly of Vietnam dated June 21, 2012 provides on management, protection, exploitation and use of water resources, as well as the prevention of, combat against and overcoming of harmful effects caused by water in the territory of the Socialist Republic of Vietnam.
- Law on Cultural Heritage No. 28/2001/QH10 dated 29/06/2001 and its modification and supplementation (No. 32/2009/QH12 dated 18/06/2009) of the National Assembly regulations on activities of protecting and promoting the values of cultural heritages; defines the rights and obligations of organizations and individuals towards the cultural heritages in Vietnam;
- Law on Biodiversity No. 20/2008/QH12 of the National Assembly of Vietnam dated November 13, 2008provides for the conservation and sustainable development of biodiversity; rights and obligations of organizations, households and individuals in the conservation and sustainable development of biodiversity.
- Law on Forest Protection and Development No. 29/2004/QH11 of the National Assembly of Vietnam dated December 03, 2004 provides for the management, protection, development and use of forests; and forest owners' rights and obligations.
- Law on Fisheries Land No. 17/2003/QH11 passed by the National Assembly of the Socialist Republic of Vietnam on 26 November 2003 and took effect since 01 July 2004;
- Decree No. 116/2014/ND-CP dated 04/12/2014 of the Government on stipulating detail and guidance on executing a number of articles of the Law on Plant Protection and Quarantine; The Circular No. 21/2013/TT-BNNPTNT dated 17/04/2013 of the Ministry of Agriculture and Rural Development on the promulgation of the list of acceptable, restricted and banned agrochemicals, and the additional lists of plants varieties allowed to be produced and traded in Vietnam;

42. In addition, there are the standards and national technical regulations on the environmental quality which will be used for assessing environment's maximal load into local environment, and the key ones has been incorporated into the generic ECOP which will be applied to works contracts. These standards have been used to judge compliance of EIA/EPP regulations for all investments in Vietnam. There are also specific policy and standards related to biodiversity and forests which will be applied to FMCRP (see Annex 3).

43. The Ministry of Natural Resources and Environment (MONRE) and the provincial Department of Natural Resources and Environment (DONRE) are responsible for ensuring effective implementation of the Environmental Impact Assessment (EIA) regulations including review and approval of EIA/Environmental Protection Plan (EPP) reports. MONRE is also responsible for land management including land use planning, land surveying and land use mapping, land allocation and registration, and issuance of land use certificates, as well as biodiversity conservation, aquatic ecosystem management and protection, and climate change. MARD and its technical departments at central level including the Directorate of Forestry, the Plant Protection Department, the Fisheries and Aquaculture, the Rural Development Department, and other agencies are responsible for ensuring effective management of forests and fisheries which includes developing forest protection and development plans, demarcating forest boundaries, forest allocation and leasing, making final decisions on forest conversion or re-categorization, aquaculture and fisheries management, and storm and flood control. MARD has established MBFP to be responsible for coordination and management of forestry related projects.

44. According to the Law on Forest Protection and Development, there are 3 types of forests i.e. Special Use Forested (SUF), Protection Forests, and Production Forest. The Land Law and the Law on Forest Protection and Development require MARD and MONRE to work closely, and both have

their offices (DONREs and DARDs) at the provincial and district levels. PPCs, DPCs, CPCs are the main decision makers in the provinces while the Protection Forest Management Board (PFMB) and the Community Forest Management Board (CFMB) can be established to be responsible for management of protection forests in specific area. PPCs are responsible for evaluating and approving DONRE/DARD's land and forest conversion plans while DPCs evaluate and approve household and individual plans. CPCs act as temporary custodians of lands within the commune that have not been allocated to an entity. If the forestland has been allocated to organizations such as State Forest Enterprises (SFEs) or Forest Management Boards (FMBs), these organizations are responsible for managing and protecting their allocated forest areas.

45. ***Coastal and mangrove rehabilitation policy:*** In the past Vietnam has invested primarily in sea dykes to protect vulnerable communities along the coast. However, there is increasing evidence that, depending on the water depth, mangrove projects in Vietnam can offer protection that is three to five times cheaper than a breakwater and also improve the effectiveness of existing sea dykes. Recent policies and decisions related to coastal zone management and mangrove rehabilitation to enhance the resilience of coastal communities in Vietnam could be highlighted as follows:

- The Central Committee of the Communist Party adopted Resolution 24-NQ/TW on 'Active Response to Climate Change, Improvement of Natural Resource Management and Environment Protection,' which declares the fight against climate change as "one of the most important tasks of the entire political system."
- Decision 158/2007/QD-TTg dated October 9, 2007, adopts an Integrated Coastal Zone Management (ICZM) Program for 14 provinces in the central coast till 2010 with the vision to 2020. GOV also adopted a detailed strategy for ICZM in Vietnam up to 2020 with a vision to 2030 (approved by the prime minister in December 2014).
- The Law 82/2015/QH13 on Natural Resources and Environment of Sea and Islands, which stipulates that ministries, ministerial-level agencies and Provincial People's Committees of coastal cities and provinces must develop ICZM programs under the prescribed scope, content, monitoring and reporting requirements, and indicates that all relevant companies, organizations and individuals must comply with ICZM products (i.e. zoning prescriptions).
- Prime Minister's Decision No. 914/QĐ-TTg dated May 27, 2016, adopts the National Coastal Zone Action Plan (NAP), which helps implement the priorities ICZM during the 2016-2020 period and to promote the approach and implementation of the ICZM Strategy. The NAP emphasizes the sustainable use of natural resources in coastal zones and guides coordination among key sectors and also recognizes that the bulk of coastal management will be carried out at the provincial level, calling for better vertical integration between all levels of government, including the national government.
- In addition to the above, GOV issued a Decree 119/2016/ND-CP on management, protection and development policies for coastal forests respond to climate change identified the importance of the coastal forest in response to climate change. The Decree also defines the investment policy on the management, protection and development of coastal forests. Investment funds, activities of socialized investment, rights and obligations of organizations, businesses, households and individuals in the coastal forest development and use are all elaborated in the Decree. The resilience objective and possible role of coastal forests is also reflected in MARD's Targeted Program for Sustainable Forest Development 2016-2020 (approved in August 2016) which aims to continue to manage, protect, develop and sustainably use forests and land zoned for forestry development, increase forest coverage to 44-45 percent by 2020. It includes, *inter alia*, the following two priority schemes: (i) protect and develop coastal forests to respond to climate change and (ii) improve forestry industry productivity and value added.

1.10 World Bank Safeguard Policies Triggered

46. During preparation, the FMCRP was screened against the ten WB's safeguard policies and seven policies are triggered including: (i) Environmental Assessment (EA) (OP/BP 4:01); (ii) Natural Habitats (OP/BP 4:04); (iii) Forests (OP/BP 4.36); (iv) Pest Management (OP/BP 4.09); (v) Physical Cultural Resources (OP/BP 4.11); (vi) Indigenous Peoples (OP/BP 4.10); and (vii) Involuntary Resettlement (OP/BP 4.12). It is expected that the overall impacts of proposed Project would be positive while most of the potential negative impacts will be moderated, localized, temporary, and could be mitigated. The FMCRP is therefore classified as Environmental Assessment Category "B" which requires preparation of an Environmental and Social Management Plan (ESMP) or ECOP for a subproject and/or activity taken into account the need to address the issues related to natural habitats, forests, pest management, and physical cultural resources. Preparation of Resettlement Action Plan (RAP) and/or Ethnic Minority Development Plan (EMDP) will be respectively required when land acquisition, resettlement, and/or limited access to natural resources and/or ethnic minorities are involved. These policies will be considered during the impacts screening and assessment and preparation of the ESMP or ECOP of a subproject and/or activities (see *Annexes 2, 3, and 4*). Below discussed justification for the policies triggered by the Project.

Environmental Assessment (OP/BP 4.01)[2]

47. An Environmental Assessment (EA) is an umbrella policy for the Bank's safeguard policies. The overarching objective is to ensure that Bank-financed projects are environmentally sound and sustainable, and that decision-making is improved through appropriate analysis of actions and of their likely environmental impacts. The EA process is intended to identify, avoid and mitigate potential impacts of Bank operations. It is important to note that EA takes into account the natural environment (air, water, and land); human health and safety; social aspects (involuntary resettlement, indigenous peoples, and physical cultural resources); and transboundary and global environmental aspects. EA considers natural and social aspects in an integrated way.

48. The project triggers the policy on Environmental Assessment (OP/BP 4.01) it will support improvements in silvicultural practices for protecting existing coastal forests and planting coastal forests as well as support local stakeholders for sustainable protection and development of the forest ecosystem services and the Project activities may create both positive and negative impacts. As all the subprojects and/or activities will be selected during Project implementation, the ESMF has been developed and it will be applied to the subprojects and/or activities to be financed under FMCRP. For all subprojects, an ESMP or ECOP will be prepared following the ESMF guidelines (see *Annex 3)*. The ESMP or ECOP will be reviewed and cleared by WB before the implementation of subproject, and its implementation will be closely monitored. The ESMF also required that all the subproject will also comply with GOV's EIA regulation.

Natural Habitats (OP/BP 4.04)[3]

49. Natural Habitats Policy is intended to prohibit Bank financing of projects that degrade or convert critical habitats. The Bank supports projects that affect non-critical habitats only if no alternatives are available and if acceptable mitigation measures are in place. Local people should be consulted in planning, designing and monitoring projects.

[2]The full treatment of OP/BP 4.01 can be found at http://web.worldbank.org/WBSITE/EXTERNAL/PROJECTS/EXTPOLICIES/EXTSAFEPOL/0,,contentMDK:20543912~menuPK:1286357~pagePK:64168445~piPK:64168309~theSitePK:584435,00.html

[3]Full description of OP/BP 4.04 is available at http://web.worldbank.org/WBSITE/EXTERNAL/PROJECTS/EXTPOLICIES/EXTSAFEPOL/0,,contentMDK:20543920~menuPK:1286576~pagePK:64168445~piPK:64168309~theSitePK:584435,00.html

50. The Project triggers this policy as the subproject will be implemented in coastal forest areas and afforestation and reforestation activities may have potential impacts on natural habitats if poorly planned or implemented. Based on the current project design, it is unlikely that the subproject would significantly convert or degrade natural habitats as the subproject sites are generally lands/mangrove and coastal inland protection forests which have already been converted. The species being used are those officially approved by MARD as appropriate to the conditions of the sites. Whilst some afforestation is planned for the later years of project implementation, key and measureable ecological (as well as institutional and socioeconomic) parameters will be set up during subproject preparation to determine the suitable areas and species for planting. The ESMF screening *(Annex 2)* will determine whether any of the proposed subprojects will significantly convert or degrade critical natural habitats. During implementation, when the subproject sites are identified, surveys and studies will be undertaken to assess the potential impacts on specific ecosystems. In case it is determined that the subproject will involve degradation of natural habitat, the ESMP will include mitigation measures acceptable to the Bank.

51. Based on current information and due-diligence performed during the preparation there do not seem to be any interventions close to critical habitat such us natural protected areas. The areas proposed for various forestry activities include wetland habitat (mangrove) which used to be natural mangrove but was converted to aquaculture in the past and coastal sandy soil (casuarina and other dry climate tolerant species). These areas might be the habitats for birds and wetland aquatic species. The project activities help to improve forest cover and quality and thus enriching these habitats. Nevertheless, the plantation plans need to consider this. Regarding types of habitats might be targeted for reforestration, initial data from the prefeasibility study suggested that types of species may be replanted for the *mangrove forest* may include Bần chua (Sonneratỉa caseolaris (L.) Engler; Trang (Kandelia obovata) và (Kandelia acndel); Sú (Aegiceras corniculcitum (L.) Blanco); Mấm đen (Avicennia officinalis L.); Vẹt dù (Bruguiere gymnorhiza (L.) Lam). In addition, there are a number of other mangrove species that can be planted in the mangroves, such as Cóc trắng (Lumnitzea rammosa), Đước vòi (Rhizophora stylosa Griff), Vẹt dù (Bruguiere gymnorhiza), Đước (Rhyzophora, v.v…). The preparation team also propose for selecting Phi lao (*Casuarina equisetifolia*), Keo lá liềm (*A. crassicarpa*), hoặc Thông Caribê (*Pinus caribaea Morelet*) as the main crop in the North Central provinces (from Thanh Hoa, Nghe An, Ha Tinh, Quang Binh, Quang Tri, Thua Thien Hue). *For the forest upgrade/terrestrial enrichment area,* drought resistant plants such as casuarina (*Casuarina equisetifolia*), sickle leave Acacia (*A. crassicarpa*) are additionally planted in the gaps and the areas remaining sparse trees to reach adequate density of 2,500 trees/ha on the poor nutrient sandy soil sites. Native species such as Lat hoa (*Chukrasia tabularis* A. Juss), Lim Xanh (*Erythrophloeum fordii* Oliver) are possibly supplemented in lowland, hilly terrain if the site conditions are nutrient-rich, thick soil layer, high humid and wet climates (from Thanh Hoa to Quang Ninh).

Forests (OP/BP 4.36)[4]

52. The World Bank's Forests Policy is intended to support sustainable and conservation-oriented forest management. The Bank helps borrowers harness the potential of forests to reduce poverty in a sustainable manner, integrate forests into sustainable economic development, and protect vital local and global environmental services and values of forests. Local people, the private sector and interest groups in the affected forest area should be consulted.

[4] OP/BP 4.36 is described in detail at http://web.worldbank.org/WBSITE/EXTERNAL/PROJECTS/EXTPOLICIES/EXTSAFEPOL/0,,contentMDK:20543943~menuPK:1286597~pagePK:64168445~piPK:64168309~theSitePK:584435,00.html

53. The Project triggers this policy as it involves coastal forest protection/rehabilitation activities aiming to restore coastal landscapes, enhance resilience of inland farming systems, and reduce vulnerability to the impacts of sea-level rise and coastal erosion. Subproject activities will include reforestation, rehabilitation and planting of mangroves and coastal inland forests in targeted areas including construction, upgrading, and/or rehabilitation of small infrastructure considered important for increasing survival rate of young mangrove and seeding. Currently, no specific areas have been identified, but it is expected that the Project will cover about 70,000 ha of 257 communes in 47 districts of the 8 provinces. Forest Management Plans will be prepared for all reforestation, rehabilitation and planting activities undertaken as part of the Project, and for any other infrastructure and livelihoods (including ecotourism) related activities that may affect the forests. Mitigation measures will be put in place to protect or rehabilitate the forests and species, especially during construction and operation. The Project will also support technical assistance, training, and workshops with an aim to improve effectiveness of coastal forest management and financing through policy changes and appropriate planning and technical supports.

54. During project preparation small-holder and community forestry in the potential targeted area have been consulted through a series of meetings and workshops. The project has been designed to promote Community Forest Management (CFM) approach which has been initiated in Vietnam and there are some implementation experience and lessons learnt. The CFM approach will promote sustainable forest management through active participation and ownership of local communities and can contribute to poverty reduction and local socioeconomic development in a sustainable manner. Annex 3 provides some specific guidelines related to CFM methodology, plan, and administrative arrangement to be considered during the detailed designs of the subproject. No commercial-scale forety or harvesting will be supported under the project, hence third-party certification many not be needed.

Pest Management (OP 4.09)[5]

55. The Bank will not finance procurement of large amount of pesticides or pesticides that falls in WHO classes IA, IB, or II. The policy also intends to ensure that adequate measures are put in place to mitigate potential impacts on public health and ecosystems.

56. The Project will not procure large amount of pesticides. The Project, however, triggers this policy as it is likely that the support of seeding activities (Component 1) and the protection and/or plantation of coastal forests and the livelihood development activities (under Components 2 and 3) may involve the purchase of small amount and/or increase in use of pesticides and/or disease prevention/treatment chemicals (i.e. antibiotics) from mangrove shrimp farming and other livelihoods activities (e.g. fishery, agroforestry, breeding). The ESMF has described the regulations/institutional frameworks related to pest management when a Pest Management Plan will be prepared and/or adoption of good practices such as application of an integrated pest management (IPM) approach will be considered during the preparation of ESMP for the subproject. Safeguard training and capacity building will also be designed to increase knowledge of famers on safe use of pesticides including safe storage and disposal of used packages.

Physical Cultural resources (OP/BP 4.11)[6]

[5] OP 4.09 is fully described in detail at http://web.worldbank.org/WBSITE/EXTERNAL/PROJECTS/EXTPOLICIES/EXTOPMANUAL/0,,contentMDK:20064720~menuPK:64701637~pagePK:64709096~piPK:64709108~theSitePK:502184,00.html

[6] OP/BP 4.11 is accessible at http://web.worldbank.org/WBSITE/EXTERNAL/PROJECTS/EXTPOLICIES/EXTSAFEPOL/0,,contentMDK:20543961~menuPK:1286639~pagePK:64168445~piPK:64168309~theSitePK:584435,00.html

57. Physical Cultural Resources Policy (PCR) is intended to ensure that projects identify and inventory cultural resources that are potentially affected by the project. PCRs include resources of archaeological, paleontological, historical, architectural, religious, aesthetic or other cultural significance. Projects should include mitigation measures when there are adverse impacts on physical cultural resources. Appropriate agencies, NGOs and universities should be consulted.

58. It is not expected that the Project will require relocation of PCRs such as monuments, temples, churches, religious/spiritual and cultural sites. However, improving climate resilient infrastructure for protection of coastal forest may involve relocation of graves which are also considered PCRs, and thus this policy is triggered. Some civil works may also include excavation activities, which may result in chance finds, the "chance find procedures" will be included in the ESMPs and civil works contracts. The ESMP will include measures for review of plantation sites and chance-find procedures, including spirit areas and other sites of cultural or religious importance to local communities.

The Indigenous Peoples policy (OP/BP 4.10)[7]

59. The Indigenous Peoples policy is designed to ensure that the development process fully respects the dignity, human rights, economies and cultures of Indigenous Peoples. The policy requires projects to identify impacts on indigenous peoples and develop a plan to address the impacts, both positive and adverse. Projects should be designed with benefits that reflect the cultural preferences of indigenous peoples. The borrower should carry out free, prior, and informed consultation and obtain broad community support for the project.

60. The Project triggers this policy as it will be implemented in the 8 coastal provinces from Quang Ninh to Thua Thien Hue where ethnic minority communities (Dao, Tay, and Muong) are known to be present. The Project aims to develop coastal forest and forest sector value added in targeted areas while improving livelihood activities (such as aquaculture in mangroves, long-rotation timber, PFES from carbon, tourism and fisheries) could also benefit to the local ethnic communities. Since the precise areas of impact of the Project cannot be determined before appraisal, an Ethnic Minority Policy Framework (EMPF) has been developed and is considered a part of the ESMF. The EMPF provides for the screening and review of subprojects to be identified during implementation in a manner consistent with this policy. It also provides processes and procedures to conduct Social Assessment (SA) and free, prior and informed consultations (FPIC) that will be conducted during implementation. The SA will identify potential negative impacts of respective project activities and opportunities to enhance positive benefits while an Ethnic Minority Development Plan (EMDP) will be developed based on the result of the SA. Where broad community support to the subproject cannot be ascertained, the subproject will not be implemented. For broader community support, the engagement of civil society organizations who work on ethnic minority will play a key role in the consultation process and promote the meaningful participation of the ethnic minorities in subproject activities. On the basis of the SA and the FPIC process, where there is broader community support, a detail report will be prepared that documents SA findings, the records and outcomes of process of FPIC with the ethnic minority community as a basis for ascertaining where there is such support. In addition, a freestanding feedback and grievance redress mechanism will also be established to receive, identify and resolve ethnic minority concerns and grievances. The SA and EMDP will be disclosed locally before the subproject activities are implemented.

Involuntary Resettlement (OP/BP 4.12)[8]

[7] Full treatment of OP/BP 4.10 can be consulted at http://web.worldbank.org/WBSITE/EXTERNAL/PROJECTS/EXTPOLICIES/EXTSAFEPOL/0,,contentMDK:20543990~menuPK:1286666~pagePK:64168445~piPK:64168309~theSitePK:584435,00.html

61. OP 4.12 seeks to prevent severe long-term hardship, impoverishment, and environmental damage to the affected peoples during involuntary resettlement. It applies whether or not affected persons must move to another location. The Bank describes all these processes and outcomes as "involuntary resettlement," or simply resettlement, even when people are not forced to move. Resettlement is involuntary when the government has the right to expropriate land or other assets and when affected people do not have the option to retain the livelihood situation that they have.

62. The proposed Project activities are unlikely to require any significant land acquisition, relocation or access restrictions to natural resources. However, the Project triggers this policy as future subproject activities may involve restrictions of access to forests and forest products for local communities to coastal protection forests. A simple Resettlement Policy Framework (RPF) has been developed to provide guidance on the preparation of a Resettlement Action Plan (RAP) or an abbreviated RAP and safeguard training on the RPF and preparation of RAP will be provided. Component 2.1 will support protection and management of existing and afforested and reforested mangroves and coastal protection forests through the adoption of co-management models involving communities/households (including participatory integrated coastal zone management). A Process Framework (PF) for restriction of access in accordance with the OP/BP 4.12 will also be prepared during implementation for this component to guide processes and procedures on all future subproject activities to identify, assess, minimize and mitigate potential adverse impacts on local livelihoods.

Safety of Dams (OP/BP 4.37), Projects on International Waterways (OP/BP 7.50), and Projects in Disputed Areas (OP/BP 7.60)

63. The Project will not finance any construction of dams and/or reservoir and/or the Project activities are not impacted by dams as described in OP/BP 4.37. The Project will not involve any international waterways which may affect the relations between the World Bank and its Borrowers and between riparian states (OP/BP 7.50) and/or located in disputed area (OP/BP 7.60), therefore these policies are not triggered by the Project.

The World Bank Policy on Access to Information[9]

64. The World Bank Access to Information Policy is intended to ensure that persons and groups affected by the project are kept informed of the project objectives and impacts, and are consulted throughout the project to ensure that their interests are represented. Safeguards documents are disclosed locally in the project areas and the World Bank InfoShop, which includes a resource center in Washington DC and an electronic database, offering access to information on World Bank projects and program to the public.

65. The Bank policy requires that during EA process the Government conducts meaningful consultations with stakeholders such as project-affected groups and local NGOs about the project's environmental and social aspects, and takes their views into account in the design of the project. All draft safeguard instruments have been disclosed locally in an accessible place and in a form and language understandable to key stakeholders, and in English at InfoShop before the project appraisal.

World Bank Group Environmental, Health, and Safety Guidelines[10]

66. World Bank-financed projects should also take into account the World Bank Group Environmental, Health, and Safety Guidelines (known as the "EHS Guidelines"). The EHS Guidelines are technical reference documents with general and industry-specific examples of Good International

[8] Detail of OP/BP 4.12 is available at http://web.worldbank.org/WBSITE/EXTERNAL/PROJECTS/EXTPOLICIES/EXTSAFEPOL/0,,contentMDK:20543978~menuPK:1286647~pagePK:64168445~piPK:64168309~theSitePK:584435,00.html

[9] Detail of World Bank Policy on Access to information is available at http://www.worldbank.org/en/access-to-information

[10] The EHS Guidelines can be consulted at www.ifc.org/ifcext/enviro.nsf/Content/EnvironmentalGuidelines.

Industry Practice. It contains the performance levels and measures that are normally acceptable to the World Bank Group and are generally considered to be achievable in new facilities at reasonable costs by existing technology. The environmental assessment process may recommend alternative (higher or lower) levels or measures, which, if acceptable to the World Bank, become project- or site-specific requirements. The General EHS Guidelines, the EHS Guidelines for Forest Harvesting Operations, and the EHS Guidelines for Aquaculture apply to the FMCRP, and this has been incorporated into the ESMF (Annexes 3 and 4).

1.11 Gap Analysis and Gap Filling Measures

67. The application of environmental assessment policies in Vietnam, as well as various efforts directed to policy harmonization between GoV and donors, has gradually narrowed the gap between the two systems. However, differences remain between GoV environmental safeguard policies and those of the World Bank. These differences in specific policies and procedures and proposed gap filling measures to be used for the FMCRP are listed in *Table 3.1* below. In this context, the ESMF requires the preparation of the ESMP in line with the content described in *Annex 3* while preparation of RAP and EMDP will follows the RPF and EMPF, respectively. The subproject/activities owners will also be required to comply with the GOV's EIA regulations.

Table 3.1: Summary of the World Bank and National EA Processes and proposed gap mitigation for the project

EA Process Stage	WB (stipulating in OP/BP 4.01 on Environmental Assessment)	Viet Nam (stipulating in Decree 18/2015/ND-CP, Circular 27/2015/TT-BTNMT	Gap Filling Measures
Screening	- Categories (A, B, C, FI) - Non-prescriptive on a case by case basis for categorization, safeguards policies application, and EA instrument identification. - The World Bank will classify the project as category A, B, C, FI according to the nature and magnitude of potential environmental and social impacts. ▪ Category A: Full EA required ▪ Category B: EA, ESMF, or ESMP required ▪ Category C, no EA required. ▪ Category FI: EA or ESMF or both required.	- Categories: I, II, III and IV of Decree 18/2015. - Prescriptive, fixed regulated in Annex I, II and III – List of projects subject to requirements of Strategic Environment Assessment (SEA) and EIA report submittal and approval. - All projects are not listed. - Normally the project owners self-screen the project based on the categorization indicated in Decree 18/2015 and consult the Provincial Department of Natural Resources and Environment (DONRE) or Vietnam Environment Administration (VEA) for the appropriate classification and EA report requirement of the project, such as: ▪ Project falls into Annex I, II, III: SEA or EIA required ▪ Project falls into Annex IV: no EIA and Environmental Protection Plan (EPP)[11] required ▪ Project is not I, II, III and IV: EPP required	- Use the World Bank's discretionary (on a subproject-by-subproject basis) approaches in screening projects the significance of its impacts, and subsequently to ascertain the project's EA category. - Examine the magnitude and significance of the project impacts based on the project type and scale, project location, sensitivity of environmental and social issues, and nature and magnitude of potential impacts.
EA instrument	- Depending on the project impact, a range of instruments are used to meet the World Bank's requirement, these include: ESMF, specific ESIA; ESMPs, sectoral & regional EA; SEA; hazard or risk assessment; environmental audits. The World Bank provides general guidance for implementation of each instrument.	- The type of EA instruments such as SEA, EIA or EPP is decided based on Annex I, II, III and IV of Decree 18/2015.	Follow the World Bank requirements on the type of EA instrument needed
Scope	- The World Bank helps Borrower draft the TOR for EA report and identify the scope of EA, procedures, schedule and outline of the EA report. - For Category A projects, ESIA TORs is required, and	- TORs for EA are not required. - Normally after consultation with the local DONRE or VEA for the EA category, the project owner will proceed with EA report preparation.	TORs for REA, SEA, ESMF, ESIA, and ESMP are a good practice to follow. - Follow the World Bank's TORs, scoping, and consultation requirements.

[11] Environmental Protection Plan (EPP) is a simplified EIA for small scale and low risk projects as per government EA regulation.

	scoping and consultation are conducted for preparation of the TORs for the EA report.		
Public consultation	- During EA process, the Borrower consults project affected groups and local NGOs about the project's environmental aspects and takes their views into account. - For Category A projects, the Borrower consults these groups at least twice: (a) shortly after environmental screening and before the TORs for the EA are finalized; and (b) once a draft EA report is prepared. In addition, the Borrower consults with such groups throughout project implementation as necessary to address EA-related issues that affect them. For Category B project at least one public consultation needs to be conducted. - For meaningful consultations, the Borrower provides relevant project documents in a timely manner prior to consultation in a form and language that are understandable and accessible to the group being consulted. - Minutes of the public meetings are included in the reports.	The project owner shall consult with the People's Committee of communes, wards and towns (hereinafter referred to as communes) where the project is carried out, with organizations or community under the direct impact of the project; research and receive objective opinions and reasonable requests of relevant entities in order to minimize the negative effects of the project on the natural environment, biodiversity and community health. - The People's Committee of the commune where the project is carried out and the organizations under direct impact of the project shall be consulted. The project owner shall send EIA reports to the People's Committee of the commune where the project is carried out and organizations under the direct impact of the project together with the written requests for opinions. Within 15 working days, from the date on which the EIA reports are received, the People's Committee of the commune and organizations under the direct impact of the project shall send their responses if they do not approve the project. - The consultation with the community under the direct impact of the project shall be carried out in the form of community meeting co-chaired by project owner and the People's Committee of the commune where the project is carried out together with the participation of representatives of Vietnamese Fatherland Front of communes, socio-political organizations, socio-professional organizations, neighborhoods, villages convened by the People's Committee of the commune. All opinions of delegates attending the meeting must be sufficiently and honestly stated in the meeting minutes.	- EA consultation as per government EA regulation is not enough and the Borrower and its consultant need to follow the World Bank's requirements on consultation and disclosure of information during EA process. - Good consultation brings benefits to the project design and contributes to project environmental outcomes.
Disclosure	Before the World Bank proceeds to project appraisal the EA report must be made available at public place accessible for project-affected groups and local NGOs. Once the World	- After an EIA report is approved, the project owner shall formulate, approve and publicly display its EMP at the office of the commune-level People's Committee of the	Follow the World Bank's Policy on Access to Information Policy in disclosure of project information, including EA

	Bank officially receives the report, it will make the EA report in English available to the public through the Bank's external website.	locality in which consultation of the community is made for people's information, examination and oversight. (Article 16, Decree 18/2015).	instruments.
Independent Expert	- For category A project, the Borrower retains independent EA experts not affiliated with the project to carry out EA. - For category A projects of high risk or multi-dimensional environmental concerns, the Borrower should also engage an advisory panel of independent, internationally recognized environmental specialists to advise on aspects of the project relevant to EA. - Experts/consulting firm will be selected through bid process under strict observation of the World Bank.	- Not regulated in Vietnam policies. - Project owner shall make, or hire an institution meeting the conditions provided in Clause 1, Article 13 (Decree 18/2015) to prepare an EIA report. Project owner or consulting service provider must fully meet the following conditions: (i) Having staff members in charge of EIA must obtain at least Bachelor's degrees and Certificate in EIA consultancy; (ii) Having specialist staff members related to the project obtaining at least Bachelor's degrees; (iii) Having physical-technical foundations and special-use devices for measuring, taking, processing, and analyzing environmental samples, which meet technical requirements. In case of unavailability of qualified special-use devices, having a contract to hire a capable institution.	Follow the World Bank requirements to avoid conflict of interest
Clearance procedure	Review responsibility is internal to the World Bank. If the EA report is satisfactory, the World Bank will issue its clearance memo. If the EA report needs to be improved the World Bank will issue a conditional clearance with the understanding that the Borrower will revise the EA to satisfy the World Bank for the final clearance.	- The Ministry of Natural Resources and Environment shall assess and approve the EIA reports on projects prescribed in Appendix III of this Decree, except for projects subject to national defense and security secrets. - Ministries, ministerial agencies shall assess and approve the EIA reports on projects under their competence in approval for investment, except for projects in Appendix III of this Decree; - The People's Committee of the province shall assess and approve EIA reports on projects in the province, except for projects prescribed above. - The appraisal will take place no later than working 45 days at MONRE level and 30 working days at DONRE level and 5 working days at district level for after receipt of a full eligible EIA or EPP.	- In addition to the Government requirements, follow the World Bank's review and clearance procedures.
Number and language of	- Number of copies not specified. - Language requirement: English for Vietnam with an	- The project owner has to submit at least seven copies of EIA report (depend on the number of appraisal council members)	Follow the World Bank's guidance and the Government requirements

EIA required for appraisal	Executive Summary in English for a Category A project. - No requirement for feasibility survey: the World Bank does not advance discussions on any investments without the preparation by the Borrower of the minimum required technical studies that prove the investments are feasible from socio-economical and technical point of view.	and one copy of the Feasibility Study or the Economic-Technical argument for the proposed project.	
Content of EIA report	Category A project contains the following major contents: - Should be in line with OP 4.01, Annex B - Content of an Environmental Assessment Report for a Category A Project. - Category B EIA reports typically follow similar table of contents as Category A.	EA report should be in line with Circular 27/2015/TT-BTNMT	For first years subprojects: prepare both ESIAs and ESMPs for WB and EIA/EPP for Viet Nam. For remaining subprojects: - Category B subprojects: ESIAs or ESMPs for WB and EIA/EPP for Viet Nam. - Category A subprojects: two options exist: i) follow two separate EIA outlines of the World Bank and the Government; ii) follow the government EIA format with incorporation of the World Bank requirements in alternative analysis, cumulative impact assessment, public consultation and disclosure, and ESMP requirements.
EA supervision	- During project implementation, the World Bank supervises the project's environmental aspects on the basis of the environmental provisions and the Borrower's reporting arrangement agreed in the loan agreement and described in the other project documentation, to determine whether the Borrower's compliance with environmental covenant (primarily with ESMP) is satisfactory. If compliance is not satisfactory, the World Bank will discuss with the Borrower action necessary to comply.	- The local DONRE is entrusted to supervise the environmental compliance of the project. - By the end of project construction stage, the Environmental Management Agencies will coordinate with Construction Management Agencies to supervise the compliance of environmental management activities stated in EA study.	- Project environmental management system needs to be established to monitor and supervise safeguards compliance during implementation. - Follow requirements in project Loan Agreement, ESMP, and contract with contractor to monitor and supervise safeguards compliance.

PROJECT POTENTIAL ENVIRONMETAL AND SOCIAL IMPACTS

68. According to the prefeasibility study (draft December 2016), scope and key outputs of the subproject activities could be briefly summarized as follows (Table 4.1) and they have been used for assessment of the impacts:

Table 4.1 Summary of subproject activities

Component and Activities	**Outputs**
Component 1: Enabling Effective Coastal Forest Management	
(1.1) Enhancing Effective Spatial Planning of Coastal Zones	01 study report on the status of use of resources of coastal areas; 01 study report on the status of coastal zone spatial planning of the 8 provinces; A number of workshops on use of natural resources in coastal areas as well as coastal spatial planning with the participation of stakeholders; 2-3 plans of spatial coastal zone planning at district or commune level are prepared; and 01 guideline on coastal spatial planning are developed and issued.
(1.2) Supporting Improved Seedling Production through Regional Units	01 report on seedling management and plantation productivity; 01 assessment study on productivity of planted forests and forest products value chain; 01 assessment study on the relationship of enterprises and forest production households; Approximately 10 technical training courses on seed production are organized; and Some existing mangrove seed stands are recognized as qualified seed stands for seed supply.
(1.3) Valuing and Expanding Payments for Forest Ecosystem Services for Coastal Forests	01 research on coastal forest valuation including economic and environmental values; 01 assessment study on the potential implementation of payment for forest environmental services in project area is conducted; Some models of payment for coastal forest environmental services are made; and Forest valuation method and payment mechanism for coastal forest services are completed.
Component 2: Coastal Forest Development and Rehabilitation	
(2.1) Planting and Protecting target coastal forests	Review of forest protection and development planning for 257 coastal communes in 57 districts, which are consolidated in 8 provinces; UXO clearance: 3,938 ha; Coastal forest area will include approximately: 72,000 ha; Coastal forest land marking: 39,500 land-marks; Coastal forest protection arrangement: Mangrove forest: 17,260 ha and Coastal terrestrial forest: 33,017 ha; Forest rehabilitation: Mangrove forest: 4,878 ha and Coastal terrestrial forest: 6,925 ha; Afforestation: Mangrove forest: 5,598 ha and Coastal terrestrial forest: 4,402 ha; and Scattered planting: 10 million trees. (The areas and number of items listed above may change based on final project documents)
(2.2) Augmenting Survival of Coastal Forests	Soft embankment to create accretion for reforestation: 24,400 m; Breakwater works (concreted hard embankments): 5,000 m; Forest protection rules board: 196 boards; Forest protection station: 18 stations; Forestry road: 132 km; Improving and upgrading of dykes: 129 km. (The areas and number of items listed above may change based on final project documents)
Component 3: Generating Sustainable Benefits from Coastal Forest	
(3.1) The investment packages for farmers or groups of households to help them implementing livelihood activities to reduce dependence and income from forest	At least 225 investment packages for communities in the project communes and Capacity strengthen for creating sustainable long-term benefits from coastal forests: 74 courses.
(3.2) *Demand Driven Productive Infrastructure*	At least 235 investment packages for communities in the project communes and Capacity strengthen for creating sustainable long-term benefits from

Component and Activities	Outputs
	coastal forests: 74 courses
Component 4: Project management and M&E	Repairing of working offices: 9 units; Enhancement of project management capacity: 14 courses; M&E plan; Social and environmental management plans; and Technical assistance: 04 expert groups

4.1 Potential Positive Impacts

69. *The overall impacts from the proposed activities are expected to be largely positive both from environment and social aspects.* Protection, rehabilitation, and planting of coastal forests and mangrove with active participation of local authority and community will increase the areas of coastal forest/mangrove in the Project area, enhance ecosystem quality and habitat connectivity and continuity, and contributing to income generation of local people. The Project beneficiaries will include: coastal communities, small-holder forestry households involved in sustainable forest management (SFM) as well as the PFMBs, CFMBs, provincial, district and commune authorities, and MARD. The Project is expected to directly benefit about 31,000 people from the activities on productive partnerships. A larger number will benefit from engagement in planting and management of coastal forests. The Red River Delta and the north central areas are considered critical for socioeconomic development and food security of Vietnam, but it is facing a very high risk of natural disasters, climate events (storms), and sea level rise. Strengthening adaptation abilities to climate change of the local communities and local authorities in the Project areas through rehabilitation and plantation of coastal forests and mangrove could help addressing these issues at a lower cost while improving resilient capacity of local population.

70. Specifically, potential positive impacts that could be qualitatively identified can be highlighted as follows:

- *Implementation of Component 1* would help putting in place conditions to maintain the needed inputs and financing for restoring coastal forests that can help reducing exposure to storm surge and sea level rise. This would strengthen the government's capacity to address sector issues through the application of ISP, of appropriate seeding technology, and of financial capacity through PFES that could benefit local communities. Applying an ISP tool could help improving effective coordination among development projects and activities in the Project area during the planning and management while applying appropriate seeding technology could help increasing planting survival rate. Applying PFES mechanism has been successfully in the Mekong Delta and it will be replicated in the selected project area and if possible scale up.
- *Implementation of Component 2* could increase the forest area protection and rehabilitation as well as help improving in the silvicultural practices and structures need to extend and manage coastal forests and augment their survival. Under the Project, about 50,000 hectares (ha) of coastal forests will be protected, 10,000 ha of coastal forests will be rehabilitated, 5,000 ha of mangrove will be planted, and 4,000 ha of sandy soil forests will be planted. This component is also expected to help improving effective management of coastal forest which is different from those of the inland forest. Most of the coastal forests are classified primarily as protection forests and they are under the direct management of the government through the CPCs, the PFMBs, or Special Usages Forest Management Boards (SUFMBs). Some coastal protection forests have been temporarily assigned to enterprises or tourism organizations for management such as Sam Son and Cua Lo. Individuals, households and communities have very limited tenure rights over coastal forest land and limited access to coastal forests.
- *Implementation of Component 3* by promoting sustainable productive partnership models that link local communities with the private sector the project could help distribute and/or diversify the benefits from protecting and maintaining the coastal forests. Providing financial support

(development and operation of productive facilities) to local communities and local authorities through competitive block grants (about 235 packages) could assist the local people and local authorities in the Project area to enhance the benefits of coastal forest protection and restoration as well as its sustainability. To enhance potential regional impacts, experience from the implementation of these subprojects could be periodically reviewed, shared, and discussed with the local authorities and communities for possible replication and/or scale up.

- *Implementation of Component 4*, will ensure effective and timely implementation of Project activities including preparation and implementation of safeguard instruments (ESMF/ESMP, RPF/RAP, and EMPF/EMDP) to be applied for the subproject/activities. Training, capacity building, and technical assistance necessary for strengthening CPMU and PPMUs will be provided.
- Moreover, through the implementation of Components 2 and 3, the Project *will also increase employment or livelihood benefits from employment of local people.* Contractors will be encouraged to use local laborers for simple works such as smooth the road, moving soil, give priority to poor families, female householders, woman if they need jobs.
- Based on the survey results of households participating during the Project preparation, local people suggested that if the Project can provide jobs and employment for local community, their income will be increased and their living conditions could be improved. Increased income can also bring more savings which can be used to invest in other production activities or for education of young children. Efficient use of natural resources which could be reflected through the increased number of households participating in the protection and taking care of the forests, could increase forest cover and provide a long-term inputs for sustainable livelihoods and benefit the communities.
- *Impact on gender*: According to the interview results, the reforestation and forest protection activities are enthusiastically supported by women. By participating in forest planting and protection activities, woman will have an opportunity to participate in social activities and to increase their income as well. This can result in more savings which can be used for other investments or for the education of young children. This also help reducing the burden of women in their family.

71. During the Project preparation, the Client and WB made an effort to quantitatively estimate the benefits of the Project interventions and documented them in the economic analysis associated with the project appraisal document. Successful implementation of Component 1 activities could lead to modernization of forest sector in coastal region while implementation of Component 4 could improve time and effectiveness of Project management and facilitate achievement of Project objectives. The expected and measurable benefits of the project will derive from Components 2 and 3 which invest in protecting and restoring coastal forest systems; and in improving coastal economies and coastal communities' livelihoods from coastal forests. Expected benefits resulted from Component 2 that invests in coastal forest conservation and restoration include: coastal protection, erosion control, maintenance of fish nursery, carbon sequestration and other benefits from collecting and harvesting raw materials, food provided by coastal forest ecosystems, recreation and tourism. The expected benefits coming from Component 3 will mainly result from increased income of beneficiary household's benefiting from the project.

4.2 Potential Negative Impacts

72. Potential negative impacts of the Project are expected to be moderate and most of them will be temporary, localized and can be mitigated. The main activities/ subprojects that could create negative impacts are forest plantation and restoration; construction, rehabilitation, and/or operation of small

infrastructure works; and support to livelihood improvement. The main impacts of Project activities could be highlighted by component as discussed in the following paragraphs.

4.2.1 Impacts of Component 1 and 4

73. Potential negative impacts of Components 1 and 4 will be *small*. The activities will involve transfer of technical knowhow, training, workshops, goods, and very small works associated with nurseries, and renovation of offices and/or construction of small office building. To be in line with WB' *Interim Guidelines on the Application of Safeguard Policies to Technical Assistance Activities in Bank-Financed Projects and Trust Funds Administered by the Bank*, all TAs under Component 1 will be reviewed for possible impacts and safeguard risks and they will be conducted through extensive consultation and active participatory processes with local authorities, local communities, and key stakeholders. For small works contracts, the ECOP for small works will be applied.

4.2.2 Impacts of Component 2 (Coastal Forest Development and Rehabilitation)

74. Component 2 activities will involve physical investments on (a) planting and restoration of coastal forests (mangrove and coastal inland protection forest), (b) physical works needed to improve the survivability of coastal forests that are recently planted, (c) construction of forestry-related infrastructure and infrastructure to help improve monitoring and implementation of protection activities such as forest nurseries, watch tower, ecological aquaculture facilities and upgrading of rural roads; and in very few cases, with detailed justification, some works on existing coastal dykes and embankments that are critical in the project sites. PPMU will be responsible for implementation of the activities during preparation and construction of infrastructure and planting including procurement of goods and other inputs. After planting and/or construction is completed, local community will be assigned (through a local contract) to be responsible for protection and management of the subproject area. Activities will also include TA for planning and technical design of subproject including supervision of the planting/protection activities, goods, and other inputs considered

75. Potential impacts of plantation and/or protection of coastal forest and mangrove during pre-planting and planting phase is considered *moderate* and could be mitigated. It may involve conflict regarding land ownerships since most of the coastal forests are classified primarily as protection forests and they are under the direct management of the government (CPCs, PFMBs, SUFMBs, or private entities) as well as increasing use of pesticides and/or toxic agrochemical during seeding development process and caring of young plants. As a consultancy will be procured to conduct needed site assessments and validation of the suitability of the currently identified subproject sites and complete detailed design of the subproject activities, given that the Project has been designed to promote participation of local communities, they will need to enable active participation of all stakeholders, so that any issues could be adequately identified and mitigated. To be cost effective, the TA should *also be required to review the ESMF and prepare an ESMP of the subproject according to the guidelines provided in Annex 3 including responsible for supervision and monitoring of the ESMP implementation and reporting.*

76. Impacts during construction, upgrading, and/or rehabilitation of the small-scale infrastructure are also expected to be *moderate* and can be mitigated and they can be summarized as follows:

(a). *Impacts due to land acquisition and resettlement:* It is not expected that land acquisition and/or resettlement will be required. However, if relocation of household grave and/or minor land requirement is involved, an abbreviated RAP will be prepared in line with the RPF and WB clearance will be required before implementation.

(b). *Safety risk related to UXO is considered moderate* since the Project area was affected by operations during the war.

(c). *Impacts during site clearance and construction:* It is expected that there will be 2 type of impacts:

one for site specific impacts (such as UXO and other safety risks, impacts on landscape, ecology, and/or on other water/land users; etc.) and one for generic impacts due to construction works (such as increase in air, noise, water pollution; waste generation, local traffic congestion, disturbance to local residents, etc.). While the impacts due to construction could be mitigated through the application of ECOP, mitigation of the site specific impacts can be identified during the detailed preparation of the subproject site and activities including specific need for infrastructure can be identified. Field visits to the subproject sites suggested that potential impacts on *local biodiversity and landscape during site* clearance and/or dredging of small canals will be small while community consultation suggested that there has not been any case related to UXO. However, risk assessment of residue UXOs to be conducted in the subproject area, especially in Thanh Hoa, Nghe An, Ha Tinh, Quang Binh, Quang Tri and Thua Thien Hue provinces and the subproject activities will be conducted only after completion of this assessment. The site-specific impacts will be confirmed during the safeguard screening *(Annex 2)* and appropriate measures will be included in the ESMP (see *Annex 3*). *All these requirements will be included in the TOR for the TA consultant for the subproject design.*

(d). *Impacts due to forest roads:* Road construction, operation, and maintenance activities may cause significant erosion and adversely affect water quality. Cutting and filling activities during road construction may disrupt subsurface hydrologic flow, and bringing water to the surface in new areas or destabilizing sensitive hill slopes which may cause slope failures. Road surfaces may allow water to flow without restriction, resulting in accelerated surface erosion, channel scouring and transport of sediment loads transport to water bodies.

Impacts during operation stage of the plantation and infrastructure are expected to be moderate. Large amount of chemical fertilizers, pesticides, herbicides, growth stimulants are not expected to be used in the plantation, rehabilitation of coastal forests. However, plantation of mono species may involve pest outbreaks, and/or other negative impacts on biodiversity especially on invasive species[12] may occur. However, these risks are considered small and can be mitigated since GOV has already established a number of procedures and/or standards on these aspects and they will be applied and monitored during the implementation of the subprojects. It is expected that efforts will be made to assign local communities to be responsible for protection and/or maintenance of most of the planted forests through a contract signing with local authorities. Potential impacts due to possible future subproject activities may involve restrictions of access to forests and forest products for local communities to coastal protection forests, although unlikely. A Process Framework (PF) for restriction of access in accordance with OP/BP 4.12 has been prepared to address potential impacts as a result of access/use restrictions of coastal forest resources (e.g. use of mangroves for fuel). The PF provides guidance on the processes and procedures on all future subproject activities to identify, assess, minimize and mitigate potential adverse impacts on local livelihoods due to integrated co-management which will be promoted by the project. The PF outlines the principles and procedures to be followed if negative social impacts occur, and seeks to prevent eligible individuals, households, and communities from becoming worse off as a result of the project. The PF also identifies the roles and responsibilities and capacity building and budget requirement to effectively implement these mitigation measures.

77. *Other impacts:* There are possible impacts on coastal ecosystem and sediment transport as well as on boat safety risk for local fishers for the subproject that involve construction of mangrove forest and/or wave break structure (underwater or soft structure) but it is considered small and mitigation measures such as monitoring of water quality and ecology and installation of safety warning sign,

[12] The terms "invasive species" was defined in the executive order 13112 of the United States in 1999 and in Vietnam Biodiversity Law in 2008 as "an alien species whose introduction does or is likely to cause economic or environmental harm or harm to human health".

buoys, etc. will be incorporated in the ESMP. *All the requirements appropriate for the subproject site and activities (see Annex 3) should be included in the TOR of the TA consultant for the subproject design.*

***4.2.3 Impacts of Component 3** (Generating Sustainable Benefits from Coastal Forests)*

78. Negative impacts of this component is expected to be *moderate.* The component has been designed to assist local communities generating sustainable benefits from coastal forests by (i) supporting farmers or groups of households developing livelihood activities that can reduce their dependence and income from the forest and funds can be used to purchase input materials, to invest in auxiliary works, drainage ditches, technical assistance, and market access and (ii) supporting the community groups that have received investment packages mentioned in (i) accessing to the market and technical assistance to implement the activities including development of small-scale infrastructure and auxiliary works. It is expected that about 235 investment packages will be provided through a competitive review of proposals to be submitted by individual households, local communities, and/or local authorities during the first 2-3 years of the Project implementation. Investment packages to be selected include: (a) support extensive aquaculture systems in mangrove forests or facilities for spawning aquaculture to improve cultivation techniques towards sustainability, maintaining or improving productivity, product yield on the basis of forest protection and development and environmental protection; (b) support smart aquaculture systems adapting to climate change; (c) support small scale agricultural and livestock systems in north central coastal provinces focused on vegetables production, fruit trees, livestock and poultry; (d) value addition to local products (e.g., canning vegetables, checking quality of aquaculture, cold storage); and (e) support for development of eco-tourism based on environmental protection and forest protection in coastal areas.

79. The subproject areas may include coastal areas where exclusive shrimp aquaculture is carried out under an ecological aquaculture production approach. Most of the aquaculture farms are expected to be of small scale and run by families. The intensity of this aquaculture is expected to be quite low and feed input also relatively low. Nevertheless, there are some environmental concerns relating to shrimp farming systems. These include potential high accumulation of sediment from some aquaculture farms, higher levels of pollution from wastewater from more intensive shrimp aquaculture, losses and damage to mangroves from improper aquaculture management, and possible use of toxic chemicals.

80. Ecotourism development may have negative impacts on fragile coastal ecosystem especially along the north central coast and the islands with high biodiversity values, rare wildlife species, and a number of beautiful beaches, water quality, and mangrove/marine ecosystems. Key issues may be related to illegal and wildlife trade; potential damage to coral reefs, seagrass beds, and/or endanger species of animals, flora, and fauna; introduction of invasive species; and possible disease outbreak.

81. There is also concern on possible induced impacts due to un-controlled/un-managed expansion of livelihood development models in nearby areas which may create undesirable outcome.

82. To mitigate the potential impacts, guideline for addressing the concerns related to the possible livelihood models is provided in *Annex 3.* The TA consultant will be required to incorporate the guidelines into the review process and ensure that the proposals will also include appropriate ESMP of the subproject.

4.3 Impacts on Gender and Ethnic Minority

83. ***Impacts on gender:*** In the coastal areas, as women have to take care of their family, they have to rely on agricultural, forestry and fisheries products to earn their income and to develop their family economy. Therefore, the restricted access of women to the management of and decision-making for forest resources has impeded the management and protection of forests.

84. ***Impact on ethnic minority:*** In Vietnam, the northern and central part of the country are home to many groups of ethnic minorities (EM). The SESA study[13] conducted in Thanh Hoa, Nghe An, Ha Tinh, Quang Binh, Quang Tri, and Thua Thien Hue (6 of the 8 Project provinces) suggested that ethnic minority people have fewer options at present to improve and/or diversify their livelihoods in comparison with the Kinh especially when agricultural change in responding to markets and they are facing many challenges. This is partly a function of lower education, and many others factors including the quality of the land available to the ethnic minority small holders and their integration with markets and changes in many policies, laws, and regulations will be necessary to address key issues. The study identified risks and challenges for implementation of REDD+ regarding to issues related to land; livelihoods and forest dependency; potential to benefits from forest land; gender/social inclusion; consultants; and policy, laws, regulation, and institution frameworks.

85. Nonetheless, the situation in the coastal area are different from the upland area. The SA study for the Project suggested that the presence of ethnic minorities in the Project area is found in Quang Ninh and Thanh Hoa provinces with 21,685 people, in which there are 186 ethnic minority people living in the target subproject communes. In the remaining six provinces (Hai Phong, Ha Tinh, Nghe An, Quang Binh, Quang Tri and Thua Thien Hue provinces) most of population living in the coastal rural areas are Kinh people, the ethnic minority people are ones living with their spouses as Kinh people, yet this type of household is quite few, not over 3 ethnic people in one commune). During the survey, ethnic minorities in Thanh Hoa are not subject to land acquisition and they are not adversely affected by the Project as well. The outstanding points of ethnic minorities living in Quang Ninh and Thanh Hoa provinces are that their living standards and income have been improved since they moved to the coastal areas in comparison with their difficult live in the mountainous areas in the past. Their main livelihoods are fisheries, livestock and crop cultivation, so their lives still depend on coastal forests. Besides, ethnic minority people will be involved in the Project activities.

MEASURES TO MANAGE ENVIRONMENTAL AND SOCIAL IMPACTS

To mitigate the potential impacts during construction, taken comments from the local authorities and local community on negative impacts due to construction into account, the Project will closely supervise and monitor performance of contractors and ensuring that the contractors conduct the subproject activities according to the international practices for engineering and construction practices. A generic Environmental Code of Practice (ECOP) has been prepared as an annex of the ESMF and it will be included in the bidding and contract documents. The contractors will also be required to prepare Site ESMP (SEMP) for subprojects including setting up a grievance redress mechanism (GRM) and initiate and maintain close relations and consultation with local authorities and community. The subproject owners will also hire qualified consultants to conduct periodic monitoring and reporting on contractor performance as well as and safeguard issues and actions undertaken during the subproject implementation. To accommodate construction of small works (such as small office and water quality monitoring), a simplified ECOP has also been prepared. Safeguard training and technical assistance will also be provided during the implementation of the FMCRP. A summary of environmental and social negative impacts and proposed mitigation measures is provided in Table 5.1.

(a) Mitigation measures for land acquisition, relocation of graves, and ethnic groups

[13] SESA Phase 1 (2014-2016) was conducted as part of the REDD+ Readiness Preparation process as required by the Forest Carbon Partnership Facility (FCPF) Readiness Grant in Vietnam and data collection (through review and consultation with target groups) include those related to land allocation, livelihoods and forest dependency, potential to benefit from forest land, gender/social inclusion; policy, law, regulation, and institutional frameworks.

- *Land Acquisition.* It is not expected that land acquisition will be required for all the proposed subprojects. However, as the subproject sites have not been selected, a RPF has been developed in close consultation with local authorities and local communities including procedures related to grave relocation.
- *Relocation of graves.* If individual grave location is required, it will be carried out by households whose graves are affected (as a practice in Vietnam). Rituals for relocation of graves may be different among Kinh, and ethnic minority peoples. Affected households will receive compensation payment to conduct the relocation on their own. Payment to the grave relocation includes costs of excavation, relocation, reburial, purchasing land for reburial (if any), and all other reasonable costs associated with necessary rituals by the local practice. Local ritual means relocation of graves will be carried out in accordance with local cultural practices, taking into account cultural preferences which are typical for each ethnic group. Where graveyard - owned collectively by ethnic groups, are affected, appropriate consultation with affected groups will be conducted during social assessment under respective subproject to work out solutions acceptable to affected ethnic minorities. Relocation of graves will be done satisfactorily to the affected households prior to the commencement of construction. Grave relocation and compensation will be documented in respective subproject RAPs and EMDPs based on the consultation with affected households and ethnic minority peoples during project implementation.
- *Ethnic Minorities.* The Project is likely to involve ethnic minority and an EMPF has been prepared in line with the WB policy. During Project implementation, when the subproject sites are identified and the presence of ethnic minority are confirmed, an EMDP for the subproject will be prepared and implemented. It is expected that the process will be made during the site selection process which will be conducted during the first 2 years.

(b) Mitigation measures for reducing UXO risk.

86. Safety risk related to UXO is considered moderate since the Project area was affected by conflict operations during the war. Therefore, a UXO risk assessment will be conducted for all the subproject sites, once they are identified, and UXO clearance (if needed) will be carried out by qualified agencies, usually a specialized army unit. Construction activities will not be allowed prior to UXO clearance.

(c) Mitigation measures during site clearance and construction stage

87. To mitigate the potential negative impacts during site clearance and construction of all works, taken into account the experience on impacts during preconstruction and construction of works into account, all the subprojects will closely supervise and monitor performance of contractors and ensuring that the contractors conduct the subproject activities according to the international practices for engineering and construction practices. A generic ECOP has been prepared as an annex of the ESMF and it will be included in the bidding and contract documents. The contractors may also be required to prepare Site ESMP (SEMP) for the subprojects including setting up a grievance redress mechanism (GRM) and initiate and maintain close relations and consultation with local authorities and community. The subproject owners will also hire qualified consultants to conduct periodic monitoring and reporting on contractor performance as well as and safeguard issues and actions undertaken during the subproject implementation. To accommodate construction of small works (such as small office and rehabilitation of facilities), a simplified ECOP has also been prepared.

88. The ECOP which is part of the ESMP describes typical requirements to be undertaken by the contractors and supervised by the construction supervision engineer during construction. They have been designed for this project to be applicable to the range of small to medium sized civil works. Relevant clauses of the ECOPs will be included as an annex in the bidding and contract documents during detailed design stage. The typical mitigation measures have been identified for the following aspects:

- Dust generation
- Air pollution
- Impacts from noise and vibration
- Water pollution
- Drainage and sedimentation control
- Management of stockpiles, quarries, and borrow pits
- Solid waste
- Management of dredged materials
- Disruption of vegetative covers and ecological resources
- Traffic management
- Interruption of utility services
- Restoration of affected areas
- Worker and public safety
- Communication with local communities
- Chance findings

89. For each subproject, there will be site-specific impacts that require site-specific measures both during construction and operation stages such as site-specific mitigation measures for UXO clearance, for impacts on costal erosion and/or deposition, local transport, and/or water quality. These measures are to be identified in the EIA and incorporated into the subproject ESMPs. These specific measures should be used in conjunction with relevant government technical regulations and the ECOP of the subproject.

90. Monitoring of coastal water quality may be necessary when there are another water users located nearby the subproject sites. However, locations of other water users and the monitoring parameters, locations, and timing will be provided in the ESMP.

(d) Mitigation measures to address impacts during operation phase

91. The measures to mitigate the main impacts during operation of the coastal forests and mangrove plantation and its associated structure would be considered during the detailed design stage of the subproject to be conducted by the TA consultant to be mobilized for design of the Component 2. Key mitigation will include measures to avoid invasion of non-native species, the use of toxic-agrochemicals, and possible impacts on other coastal water uses, on local waterway transportation, on community and ecological health risks associated with exposure to biochemical used in the tending and maintenance processes, and/or in the agriculture and/or aquaculture demonstration models to be selected and/or applied. For the subproject involve hard structure that can increase safety risks to local waterways users, measures to ensure safety for the local transporter will be required and monitoring of shoreline for possible change in coastal erosion, deposition, and water/land uses due to the subproject will be made (see *Annex 3).*

(e) Mitigation Measures for Component 3 Activities

92. Given that the subproject activities (investment package) will be finalized during the first 2 years of the Project implementation through the review and approval of the proposals, safeguard screening (Annex 2) and preparation of ESMP (Annex 3) will be made during the review and approval of the proposal process. Mitigation measures for civil works will be include application of ECOP and site specific measures while those related to livelihood development models likely to be selected for the subproject sites including ecotourism will be selected from the guidelines provided in Annex 3 and/or as agreed with WB safeguard specialist on a case by case basis. The measures will be incorporated as part of the ESMP of the subproject during the review and approval of the proposals. The ESMPs, RAPs, and/or EMDPs will be included in the subproject proposals as needed and their implementation will be monitored and results reported to WB as part of the safeguard monitoring report. Safeguard

screening, review, approval, implantation and monitoring will follow the ESMF process descried in Section 6.

Table 5.1: Summary of Environmental and Social Negative Impacts and Proposed Mitigation Measures

Component, Subcomponent, & Scope of Activities	**Potential impacts on environment and society**	**Proposal of mitigation measures**	**Responsible agencies**
Component 1: Enabling Effective Coastal Forest Management			
C1.1: Enhancing Effective Spatial Planning of Coastal Zones. Key activities are TA and other capacity building activities (training; printing, workshops, travels, and goods).	No negative impacts on local environment. However need active consultation with local communities to avoid potential conflicts in land uses.	Review the TOR for the TA for possible safeguard risks and ensuring that the activities with be carried out in consultation with local authorities and communities.	PMU of VNForest and CPMU
C1.2 Supporting Improved Seedling Production through Regional Units. Key activities are similar to C1.1 but focus on seeding development	Similar to C1.1. Seedling activities may involve the use of pesticides and other toxic chemicals.	Review the TOR for the TA for possible safeguard risks and ensuring that the activities with be carried out in consultation with local authorities and communities. If pesticide and/or toxic chemicals are used, mitigation measures in line with PMF (*Annex 5*) should be applied.	PMU of VNForest and CPMU
C1.3 Valuing and Expanding Payments for Forest Ecosystem Services for Coastal Forests. Key activities are similar to C1.1 but focus on PFES mechanism.	Similar to C1.1. Implementation of PFES related to ecotourism, patrolling and enforcing regulations, and protection management may create some negative environmental impacts.	Review the TOR for the TA (PFES) for possible safeguard risks and ensuring that the activities with be carried out in consultation with local authorities and communities. If needed, application of the guideline provided in *Annex 3* should be applied.	PMU of VNForest and CPMU
Component 2: Coastal Forest Development and Rehabilitation			
C2.1 Planting and Protecting target coastal forests. Project area (72,080 ha) covers 257 communes in 47 districts. Key activities will include TA and investments on protection and plantation (coastal forest and mangrove) including a long term contracts with local owners and investment in small-scale infrastructure (construction, rehabilitation and/or upgrading),	*During preconstruction and construction* - Potential conflicts on land ownerships - UXO risks: *High*	Ensure adequate consultation among local authorities and communities to clarify issues which is important for ensuring that local communities can be contracted for protection, caring, and tendering the subproject area	PPMUs Supervise by CPMU
	Protection, plantation, seedling, and tendering may create site specific impacts due to types of activities and locations of the subproject areas.	Ensuring appropriate site selection, types of plants, seedling standard, and planting and tendering techniques for mangrove as well as for inner coast forest (see Annex 3)	PPMUs and CPMU

Component, Subcomponent, & Scope of Activities	Potential impacts on environment and society	Proposal of mitigation measures	Responsible agencies
protecting the forests. The target are: 50,000 ha of coastal forests protected; 10,000 ha of coastal forests rehabilitated; 5,000 ha of mangroves planted; 4,000 ha of sandy soil forest planted. Harvesting is mainly on non-timber forest products (NTFPs), but benefit sharing/co-management of forest protection can allow the harvesting of up to 20% of wood from protection areas, basing on the assessment of specific sites where it is technically feasible.	**During operation**		
	Planting in wrong area and/or with wrong design can cause significant change in coastal flow and sedimentation and may negatively affected other users of coastal resources.	Proper site selection and design (see Annex 3);	PPMUs and CPMU
	Increase pest disease outbreak: Moderate	Selection of tree species and planting season are suitable with natural condition of the proposed areas in order to prevent habitat disturbance (see Annex 3);	PPMUs and CPMU
	Increase forest fire risks: Moderate	Development of forest fire prevention plans that is integrated with the project implementation plans including training (see Annex 3).	PPMUs and CPMU
	Environmental impacts of harvesting of NTFPs, harvesting of small quantity (up to 20%) of wood from protection areas, and the recreational uses of forests have so far been assessed as low. These may include incidental fire and illegal logging.	Careful planning and management; firebreaks may also need to be constructed; organize firefighting crews if fire is a major hazard; and establishment of forest protection units. In each benefit sharing/co-management contract, a sustainable forest management and protection plan is developed with clear guidance and provision on this 20% harvest, noting that forests sustainability includes harvesting in a sustainable way. Any cutting down of trees in the protection forests needs prior approval of relevant authorities.	PPMUs and CPMU
C2.2: Augmenting Survival of Coastal Forests. This will support additional structural measures that are often required to increase the survival rates of the planted materials. Type of structures would include those reducing exposure to the forces of the sea (waves and tidal	*Pre-construction impacts:* UXO risks: High Land acquisition: Small. As land acquisition, and/or resettlement will not be required and local community may be contracted for undertaking the works, possible impacts due to establishment of work camps will be minor or	- Conduct UXO risk assessment and UXO clearance as needed. - Prepare RAP in line with the RPF if land acquisition and/or relocation of grave is required. An independent monitoring of RAP implementation will be conducted	PPMUs supervise by COMU and local authorities and local communities

Component, Subcomponent, & Scope of Activities	Potential impacts on environment and society	Proposal of mitigation measures	Responsible agencies
currents) and structures that would assist with improved tending of newly planted forests, reducing the likelihood of degradation caused by pests or animals. Key activities will include works contracts, materials and equipment, and TA for FS, detailed, construction and supervision of works, subproject management, and environmental management consultant (EMC).	don't need.		
	<u>*During construction: Moderate.*</u> Construction of these small works will create waste generation, nuisance to residents, and possible increase in water, air, and noise pollution. However, these impacts will be localized, temporary and Conventional impacts due to small civil works such as increase in air, noise, vibration, water quality, wastes, and safety (workers and public).	All contractors will be required to comply with ECOP	
	<u>*During operation: Moderate.*</u> - Site specific impacts due to type of infrastructure and location of subproject sites such as small wave breakers,	Reduce safety risks; Monitoring of possible change along the shorelines (erosion, deposition, water quality, ecology) See Annex 3 (b)	Local agencies or local communities responsible for protection and/or maintenance of the structure (per contract)
Component 3. Generating Sustainable Benefits from Coastal Forests			
C3.1: Investment Packages for Generating Benefits from Coastal Forests. The Project will provide (235) funding packages (via competitive grant) *for local community* to develop livelihood models and productive infrastructure to be selected through competitive selection It is expected that the package cost will be <US$90,000 and the forest protection contract will be linked with Component 1.3.	<u>During preconstruction and construction</u> - Potential conflicts in land/water uses due to the construction and/or operation of the selected livelihood activities - Potential impacts due to small scale infrastructure (such as increase in air, noise, water quality, wastes, and safety (workers and public) UXO risks: *High*	- Establish clear review criteria and ensure adequate consultation with local communities and promote transparency during the review and selection process. (see Annex 3) - Apply appropriate measures depending on type, locations, and nature of potential negative impacts which will be determined during proposal review. ESMP, RAP, EMDP will be included in the proposal before approval and its implementation will be monitored.	
	<u>During operation: *Moderate*</u>	See guidelines in Annex 3	Local households or

Component, Subcomponent, & Scope of Activities	Potential impacts on environment and society	Proposal of mitigation measures	Responsible agencies
	- Key issues related to livelihood developments may include degradation of coastal ecosystem, use of pesticides and toxic agrochemical, illegal and wildlife trade; potential damage to coral reefs, seagrass beds, and/or endanger species of animals, flora, and fauna; introduction of invasive species; and possible disease outbreak. - Site specific impacts due to type of infrastructure and locations of the subproject sites. - There may be indirect impacts due to uncontrolled/unmanaged upscale of the selected livelihood/ partnership models.		groups of households that received the investment package Local authority
C3.2 Demand Driven Productive Infrastructure. To support (competitive basis) a minimum of 47 investment packages for infrastructure that could increase productivity and market efficiency (such as village roads, etc.), and/or support to Component 3.1 implementation. Selection criterial will be established in the POM. Voluntary	*Preconstruction and construction* - Site specific impacts will be due to type of infrastructure and locations of the subproject sites such as increase needs for water supply for aquaculture; pollution due to wastes from feed and chemical substances, etc. - Increase water, air/noise pollution, and safety risks and generate more wastes. - Land acquisition, UXO risks, etc are expected not to be selected.	Apply good practices and/or compliance with GOV standard and/or the guidelines provide in *Annex 3*	
C4: Project Management and Monitoring and Evaluation. The activities will include technical assistance and training on environment	Minor impacts due to office renovations	Apply ECOP for small works for all contract for office renovations or small works.	See Annex 4(b)

Component, Subcomponent, & Scope of Activities	Potential impacts on environment and society	Proposal of mitigation measures	Responsible agencies
and social safeguards.			

PROCEDURES FOR REVIEW, CLEARANCE, AND IMPLEMENTATION OF SUBPROJECT SAFEGUARD INSTRUMENTS

1.12 Objective and Approach

93. Main objective of the ESMF process is to ensure that the subprojects and other project activities to be financed by the FMCRP will not create adverse impacts on the local environment and local communities and the residual and/or unavoidable impacts will be adequately mitigated in line with the WB's safeguard policies. The ESMF comprises 4 steps and the process is schematically shown in *Figure 5.1.* Given the nature of subprojects/ activities the ESMF process for FMCRP will be applied to Components 1, 2,3, and 4. This section briefly describes key steps while more details are provided in annexes. *Table 5.1* summarizes the application of annexes in the ESMF process.

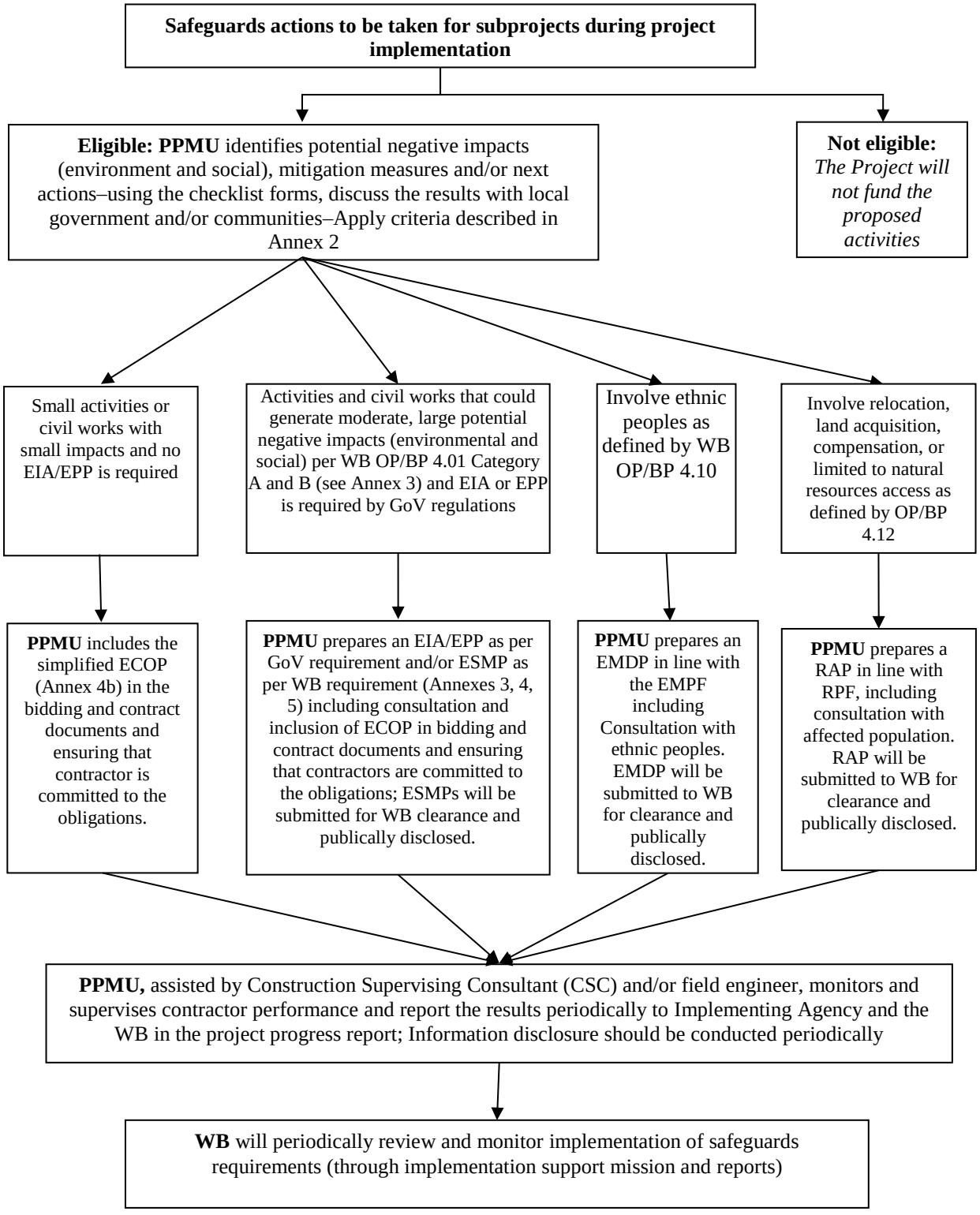
- Step 1: Safeguard screening and impacts assesment;
- Step 2: Preparaton of safeguard documents as required including development of mitigation measures and public consultation;
- Step 3: Safeguard clearance and information disclosure; and
- Step 4: Implementation, monitoring, and reporting.

94. The activities of Components 1 and 4, which will involve mainly transfer of technical know how and very small works (such as works on nurseries, renovation of offices), will be subjected to screening of eligibility only. Processing the TA will follow the interim guidelines of the Bank's Operations Policy and Country Services, Operational Risk Management (OPSOR): *"Interim Guidelines on the Application of Safeguard Policies to Technical Assistance Activities in Bank-Financed Projects and Trust Funds Administered by the Bank".* All the technical assistance will be conducted through active participation of local authoritites and communities, and the ECOP for small works will be applied to all work contracts to be carried out under Components 1 and 4. *Table 6.1* summarizes the application of specific annexes in the ESMF process.

Table 5.1 Applications of ESMF Annexes

Annex #	Content	Application
2	Subproject/activities Screening Checklist	All subprojects/activities under Components 2 and 3
3	Guidelines for Environment and Social Management Plan (ESMP)	All subprojects/activities under Components 2 and 3
3 (a)	Guidelines on ESMP preparation	All subprojects/activities under Components 2 and 3 (small works is expected in year 4)
3 (b)	Guidelines for safeguard issues of Component 2	All subprojects/activities under Component 2 (small works is expected in Year 4)
3 (c)	Guidelines for safeguard issues of Component 3	All subprojects/activities under Component 3 (small works is expected in Year 4)
3 (d)	Guidelines for gender and EM	All subprojects/activities under Components 2 and 3
4(a)	Environmental Code of Practice (ECOP)	All works under Components 2 and 3
4(b)	Simplified ECOP for Small Works	All works under Components 1 and 4
5	ESMP supervision, monitoring, and reporting	All subprojects and activities
6	Implementation arrangements	Whole project

Figure 5.1. Schematic Flowchart for Safeguard Actions for Subprojects



1.13 Step 1: Safeguard Screening and Impact Assessment

95. This step (Step 1) aims to confirm the eligibility of subproject and/or activities to be financed by the Project as well as identify the potential environmental and social impacts of the subprojects/activities including categorization of the subproject into A, B, or C, identification of WB safeguard policy to be triggered, and identification of safeguard documents to be prepared as required by OP/BP 4.01, OP/BP 4.10, and OP/BP 4.12 (see details in *Annex 2).* The subprojects/activities categorized A per OP/BP 4.01 will not be eligible for financing by FMCRP. PPMUs will be responsible for signing the screening forms for Components 2 and 3 while CPMU will endorse the signing. Consultation with WB safeguard specialists during the screening process is highly recommended.

1.14 Step 2: Development of Safeguard Documents

This step (Step 2) aims to prepare safeguard documents in line with the issues identified in Step 1. Guideline for the preparation of EIA and ESMP are provided in Annex 3 while those for RAPs and EMPDs are provided in RPF and EMPF, respectively. PPMUs will be responsible for preparation of safeguard documents for Components 2 and 3. Given the nature of small activities, preparation of ESMP will not be required for community-based activities. Consultation with WB safeguard specialists for acomplex subprojects is highly recommended.

96. It is also necessary that PPMU will also prepare documents (EPP, EIA, etc.) as required by the GoV EIA regulation[14] and secure approval of responsible agencies.

1.15 Step 3: Review, Approval, and Disclosure of Safeguard Documents

97. ***WB review and clearance:*** Before approval and commencement of subproject works, all safeguards documents of the subproject will be submitted to the WB for safeguard clearance and public disclosure. For the FMCRP, WB will prior review ESMP of the first subproject (irrespective of category) of each province and will conduct post review of other subproject ESMPs during safeguard supervision missions.

98. All safeguard documents will be posted in the official website MARD and the project provinces, and hardcopies will be available at CPMU, PPMUs, and the subproject sites in Vietnamese. A notification will be published about the disclosure and comments will be sought within one month of the disclosure date. The English ESMP will be disclosed at the WB's external website.

99. ***Government approval:*** The WB also required that the EIA or EPP documents as required by the GoV will be approved by responsible agencies. The EIA in Vietnamese as well as the approval conditions will be provided to the Bank for information. The EIA report and approval condition will also be disclosed to the public.

1.16 Step 4: Implementation, Supervision, Monitoring, and Reporting

100. Safeguard implementation, supervision, monitoring, and reporting is an integral part of the Project and subproject implementation and specific safeguard staff will be assigned to be responsible for the activities. The WB safeguard specialists will also supervise and monitor the implementation of safeguard as part of the WB implementation support mission. Details on responsibility of agencies are described below.

[14] GoV procedures (namely, Decree No. 18/2015/ND-CP dated February 14, 2015 of the Government on environmental protection planning, strategic environmental assessment, environmental impact assessment, and environmental protection commitment, and Circular No. 27/2015/TT-BTNMT dated 19 May 2015 of the Ministry of Natural Resources and Environment on strategic environmental assessment, environmental impact assessment, and environmental protection plan).

101. **Coastal Erosion and Deposition Monitoring:** While construction and barriers and/or plantation of mangrove can create positive impacts in the subproject areas they may also cause change in coastal water movement and sediment transport and may have negative impacts to other coastal area. To avoid potential land/water use conflicts, it is necessary to conduct a monitoring program through community network that can monitor the change over a medium and long term period. Results should be discussed among communities and actions could be undertaken to mitigate these impacts. If possible, study visits should also be carried out to enhance knowledge and experience on the potential positive and negative impacts of the Project, especially on coastal erosion, plantation/rehabilitation of mangrove forest, promotion of sustainable shrimp farming and/or aquaculture, etc. At least one study visit should be conducted at least 1 time per year during year 2 to year 3.

IMPLEMENTATION ARRANGEMENTS

1.17 Responsibility for ESMF Implementation

102. In line with the implementation arrangement discussed in Section 2, the subproject/activity owner considered as the implementing agency (IA) at the Project level and subproject level are responsible for implementation of the ESMF (see *Table A6.*1 in Annex 6).

103. At Project level, for Component 1, the PMU of VNForest will be responsible for ensuring effective application of ESMF for all Component 1 activities. CPMU will be responsible for overall planning and supervision of safeguard activities of Component 4 and the whole Project. CPMU will also mobilize qualified national environmental and social safeguard consultants (individual or firm) to provide safeguard training and technical assistance including supervision, monitoring, and reporting of safeguard to the World Bank every 6 months. This includes hiring of a qualified national firm (if land acquisition is required) to be an Independent Monitoring Agency for RAP (IMA) which is mandatory for OP/BP 4.12.

104. At subproject level, the subproject owners (PPMUs) of Component 2 and 3 will be responsible for ensuring effective implementation of ESMF at subproject level including hiring qualified national consultant to prepare safeguard documents (RAP, EMDP, ESMP) and ensure effective implementation of the ESMP, RAP/EMDP. A qualified national consultant firm (called the Environmental Monitoring Consultant or EMC) will be hired to assist during the implementation of the ESMP including monitoring of environmental quality and preparation of safeguard report to CPMU. PPMUs will also ensure that the final design has incorporated measures to mitigate potential negative impacts during construction and operations and that ECOP is incorporated into the bidding and contract documents and the contractor are aware that the safeguard management actions are part of the contract cost.

105. For works contract, after the approval of the ESMP, the PPMU is responsible for ensuring that the ESMP is effectively implemented and that for all works contract, the ECOP are included in the Bidding and Contract Document and that contractor is aware and committed to effectively implement ESMP and ECOP, and the cost is part of the contract cost. Before construction, the subproject owner will assign the Construction Supervision Consultant (CSC) and/or field engineer to be responsible for day-to-day supervision of contractor performance on safeguard and report the results in the subproject progress report. CPMU/ PPMUs/ PMU-VNForest will work closely with DONRE during implementation of the subprojects. PPMU which is responsible for overall implementation of the Component 2, 3, and 4 subprojects will ensure that the ESMP and ECOP has been included in the bidding document and the subproject owner is effectively implemented the ESMP and adequate budget has been allocated.

106. For plantation contract, after approval of the ESMP, PPMUs will ensure that the TA to be mobilized for undertaking the design and supervision of the plantation also effectively incorporate measures to mitigate issues in line with the guidelines provided in *Annex 3.*

1.18 Reporting Arrangements

107. The safeguard performance will be included in the subproject and Project progress reports PPMUs/PMU-VNForest with assistance from the CSC will submit safeguard performance at subproject level to CPMUs on a monthly basis. At the Project level, CPMU will prepare safeguard performance report twice per year for submission to the World Bank describing the Project progress and compliance with the ESMF and other safeguard requirements. The reporting requirement is described in *Table 6.1* below.

108. The progress report submitted to the CPMU must include sufficient information on subproject implementation progress and implementation and/or issues related to ESMF/safeguards. The progress report for CPMU to be submitted to WB must have adequate information regarding: i) preparation and disclosures of environmental safeguards instruments for subprojects; ii) incorporation of new subproject ESMPs in the bidding and contractual documents; iii) monitoring and supervision of ESMP implementation by the contractor, the construction supervision engineer, and the PPMUs/PMU-VNForest; iv) any challenges in safeguard implementation, solutions, and lessons learned.

Table 6.1 Reporting Procedures

	Report Prepared by	**Submitted to**	**Frequency of Reporting**
1	Contractor to the Employer	PPMUs	Once before construction commences and monthly thereafter
2	Construction Supervision consultant (CSC)	PPMUs	Weekly and monthly
4	Community Monitoring	PPMUs	When the community has any complaint about the subproject safeguards implementation
5	PPMU	CPMU	Monthly
6	CPMU	WB	Every six-month

1.19 Incorporation of ESMF into Project Operational Manual

109. The ESMF process and requirements will be incorporated into the Project Operation Manual (POM) and CPMU will provide training to ensure that the subproject owner (PPMUs) understand them as well as will supervise and monitoring the ESMF implementation periodically. The safeguard section in the POM will also make reference to the ESMF annexes as needed.

CAPACITY BUILDING, TRAINING, AND TECHNICAL ASSISTANCE

1.20 Institutional Capacity Assessment

110. Implementation of the Project financed by the WB is not new for MBFP of MARD; therefore, most of Project activities could be managed with low safeguard risks. Implementation of Component 2 and 3 activities which are related to afforestation, forest regeneration and repairing/upgrading of small-scale silviculture, have also low to moderate safeguard risks and potential negative impacts can be mitigated through the application of screening, assessment, and preparation of ESMP including the conventional measures described in the ECOP. However, it is necessary to ensure that the CPMU/MBFP has adequate capacity to provide guidance to PPMUs as well

as to review and approve the ESMP and M&E of the ESMPs implementation especially for Components 2 and 3.

111. Project level: Currently, MBFP of MARD includes many professional staff on forestry, environment and social staff. MBFP staff have extensive experience in the preparations and implementation for environmental and social safety policies related to ODA forestry projects. The MBFP staff are participating in short-term training courses on the environment and social policies organized by donors (World Bank, ADB) and specialized workshops in overall training program of the projects implemented by MARD. However, due to increasing requirements on the management and implementation of safety environmental and resettlement policies, the donors made many new and stricter requirements in implementation of safeguard policy. There are many changes in national policies on environment and resettlement. It requires implementation staff to constantly learn and increase their professional qualifications as well as foreign language to meet job requirements.

112. Subproject level: MBFP and most of the PPMUs have been involved in the implementation of the World Bank's safeguard policy, however, their knowledge and experience of the requirements on safeguard policy is still limited. Moreover, most national consultants and local authorities do not have adequate knowledge on WB safeguard requirements therefore safeguard training program will be necessary during the implementation of the Project. For MBFP, it is expected that at least two senior safeguard officers from MBFP (one for social and one for environment) will be assigned as safeguard officers. It is expected that safeguard staff are capable of providing training on the ESMF process, RAP, and EMDP preparation. However, assistance of local qualified specialists will be necessary to enhance their capacity to adequately address specific social and environment issues and scope of the safeguard documents.

113. ***Capacity of PPMUs:*** PPMUs had previous experience in implementing similar forest project in the past and all activities were small and did not require preparation of an EIA per GOV's EIA regulation. The survey results from the subproject sites suggested that, 30% of the PPMUs do not have safeguard staff in charge or responsible unit. Of the remaining 70% PPMUs, there are 1-2 staff with some implementation experience with ADB, JICA or WB. However, their knowledge and awareness on the WB's safeguard policies, on environment or social issues has been limited. About 15% of staff are engineer/bachelor graduated in environment while the rest have other background. Moreover, these staff often shifted and/or appointed to another work.

95. ***Capacity of Community:*** Results from surveys suggested that the communities in the coastal provinces of Quang Ninh, Hai Phong, Thanh Hoa, Nghe An depend on the mangrove ecosystem through extensive farming and small production with low productivity due to lack of funds and sustainable farming techniques while those in the north central coastal provinces (Ha Tinh, Quang Binh, Quang Tri, Thua Thien Hue) making their livelihood mainly on agricultural activities such as growing vegetables, fruit trees, livestock and poultry. Some of the local peoples understand and aware of the important role of protection forests on reducing natural disasters and a possibility for them to increase income. However, there are many existing constraints for local communities to play an active role in coastal forest/mangrove management given their limited knowledge, poor living condition, and lack of financial resources.

114. Nonetheless, as the Project aims to promote the application of Community Forest Management (CFM) for ensuring sustainable management of coastal forest, it is necessary to provide guidance on safeguard actions to ensure that adequate training (technical and management) on coastal forests will be provided during the implementation of the subproject (see *Annex 3*). In addition, training on issues related to safeguard such as on safe use, storage, and disposal of pesticides and on other specific activities necessary for prevention and management of forest fire, possible impacts of invasive species,

related GOV regulations and obligations to international conventions, and other safety issues will be necessary.

1.21 Training and Technical Assistance

115. During implementation of FMCRP, safeguard training and technical assistance will be provided both for implementing safeguard policy will be conducted for staff of PPMUs and CPMU. During the first 3 years MBFP/CPMU will conduct at least 2 safeguard training workshops (one on environment and one on social) per year for PPMUs focusing on the contents of ESMF and requirements for preparing safeguard documents, especially ESMP, ECOP, RAP, EMDPs. WB safeguard specialist will also participate in the training courses. Technical training on issues related to safeguard issues and other related aspects including field trip will also be carried out at least 1 time per year for the first 3 years. The training program and key participants will include, but not limited to, those listed in *Table 8.1*.

116. The objective of safeguard training and technical assistance is to ensure that staff and local communities have adequate knowledge and understanding on Government regulations as well as safeguard requirements and take actions timely. CPMU will mobilize consultants to provide training on safeguard policy, monitor and report on performance of safeguard policy to WB. CPMU will also mobilize independent monitoring consultant to supervise the implementation of RAP (if needed). PPMUs will also mobilize safeguard consultants (individual or organizations) to support them in the implementation of safeguard measures for the subproject. The consultants will ensure that safeguard measures (ESMP, RAP/EMDP) will be fully integrated into the subproject planning and implementation cycle as well as helping CPMU/PPMUs to prepare safeguard monitoring reports as required. The consultants will also ensure that technical assistance on environment and social safeguards is provided to local communities so that they could be perform their function effectively.

Table 8.1: Safeguard training at the beginning of MD-ICRSLP implementation

No	*Contents*	*Target Groups for Training*
1	The contents of ESMF and guidelines on preparation, implementation, and monitoring of safeguard tools (RAP, EMDPs, ESMPs) for the activities/subprojects, including the application of GRM to effectively address local complaints.	CPMU, PPMUs
2	Training on monitoring and supervision of contractor's compliance with ESMP and ECOP, including forms and reporting procedures, basic knowledge about health, safety and good practice in the construction process to reduce the effects on the environment and local people, such as communication ways, GRM, other involved social issues.	CPMU, PPMUs, and contractor
3	The importance of public consultation and the involvement of households in selecting and planning process.	CPMU, PPMU, construction consultant, environmental consultant and local authorities
4	Training on the national environmental policies, procedures, laws and regulations especially those related to air, water (surface water, groundwater and coastal water), and soil pollution; health, labor and community safety; waste management and treatment; social contradictions and social conflicts; use of natural resources; and adaptation and mitigation of the impacts of climate change in coastal areas.	CPMU, PPMUs, Contractor. Local authorities, and local communities
5	Training on the World Bank's safeguard policies.	CPMU and PPMUs
6	Training on sustainable use of coastal resources and forest resources.	Local people and authorities

ESMF IMPLEMENTATION BUDGET

117. The ESMF implementation budget comprises (a) cost for preparation of safeguard documents (ESMPs, RAPs, and/or EMDPs) of subprojects including consultation and monitoring by PPMUs; (b) cost for supervision, monitoring, and training on environment and social safeguard issues by CPMU; (c) cost for independent monitoring for RAPs and EMDPs by CPMU; (d) cost for an independent monitoring of ESMP by CPMU; (e) cost for implementation of ESMP, ECOP, and site specific measures; and (f) cost for implementation of RAPs and EMDPs (as needed). Both the Government and the WB will co-finance the ESMF implementation budget. Indicative costs for items (a), (b), (c), and (d) is estimated to be $100,000 for each province and $200,000 for CPMU (i.e. $1 million in total) and these cost should be integrated into the TA costs for TA consultant to be mobilized for preparation and supervision of Component 2 and 3. Costs for (e) and (f) will be part of the subproject cost of which that for (f) will be paid by the Government.

GRIEVANCE AND REDRESS MECHANISM

1.22 Subproject Grievance Redress Mechanism (GRM)

118. Within the Vietnamese legal framework citizen rights to complain are protected. As part of overall implementation of the subproject, a Grievance Redress Mechanism (GRM) will be established by PPMU identifying procedures, responsible person and contact information. It will be readily accessible, handle grievances and resolve them at the lowest level as quickly as possible. The mechanism will provide the framework within which complaints about environmental and safety issues can be handled, grievances can be addressed and disputes can be settled quickly. The GRM will be in place before subproject construction commences.

119. During construction, the GRM will be managed by the Contractor under supervision of the CSC. The Contractor will inform the communities and communes affected by the subproject about the GRM in place to handle complaints and concerns about the subproject. This will be done via the Information Disclosure and Consultation Process under which the Contractor will communicate with the affected communities and interested authorities on a regular basis: hold meetings at least quarterly, publish a monthly information brochure, place announcements in local media, post notices of upcoming planned activities.

120. All complaints and corresponding actions undertaken by the Contractor will be recorded in the subproject safeguard monitoring report. Complaints and claims for damages could be lodged as follows:

- *Verbally:* direct to the CSC and/or the contractor safeguard staff or representative at the subproject Office
- *In writing:* by hand-delivering or posting a written complaint to the address specified
- *By telephone, fax, e-mail:* to the CSC, the contractor safeguard staff or contractor's representative.

121. On receipt of a complaint, the CSC, contractor safeguard staff or representative will register the complaint in the Complaints File and maintain a Log of events pertaining to it thereafter until its resolution. Immediately after receipt, three copies of the complaint will be made. The original will be kept in the File, one copy will be used by the contractor's safeguard staff, one copy will be forwarded to the CSC and the third copy to the PPMU within 24 hours of the complaint being made. Information to be recorded in the Complaints Log will include (see Annex 5):

- The date and time of the complaint;
- The name, address and contact details of the complainant;
- A short description of the issue of complaint;
- Actions taken to address the complaint, including persons contacted and findings of each step in the complaint redress process;
- The dates and times when the complainant is contacted during the redress process;
- The final resolution of the complaint;
- The date, time and manner in which the complainant was informed thereof; and
- The complainant's signature when resolution has been obtained.

122. Small complaints will be dealt with within one week. Within two weeks (and weekly thereafter), a written reply will be delivered to the complainant (by hand, post, fax, e-mail) indicating the procedures taken and progress to date.

123. The main objective will be to resolve an issue as quickly as possible by the simplest means involving as few people as possible, at the lowest possible level. Only when an issue cannot be resolved at the simplest level and/or within 15-days, will other authorities become involved. Such a situation may arise, for example, when damages are claimed and the amount to be paid cannot be resolved or the cause of the damages determined.

124. It is noted that to ensure satisfactory results, a tiered approach may be applied. If a complainant is not satisfied with the resolution made by the PPMU, he/she can submit the complaint to CPMU or relevant government entities. The complainant may also submit the complaint directly to CPMU before submitting it to PPMU. As a last resort the complainant can submit claims through the court system.

1.23 WB Grievance Redress Service (GRS)

125. ***WB' s GRS:*** Communities and individuals who believe that they are adversely affected by a World Bank (WB) supported project may submit complaints to existing project-level grievance redress mechanism or the WB's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to adddress project-related concerns. Project affected communities and individuals may submit their complaints to the WB's independent Inspection Panel which determines whether harms occurred, or could occur, as a result of WB non-compliance with its policies and procedures. Complaints may be submitted at anytime after concerns have been brought directly to the WB's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate Grievance Redress Service (GRS), please visit www.worldbank.org/grs. For information on how to submit complaints to the World Bank Inspecition Panel, please visit www.inspectionpanel.org.

ESMF CONSULTATION AND DISCLOSURE

1.24 Community Consultation

126. Based on the initial identification of potential subprojects sites and targeted communties, during preparation of the ESMF, RPF, and EMPF, a number of meetings and consultations were conducted with local authorities, local communities, including those likely to be affected by the project, local social organizations (e.g. farmer's union, women's union, fatherland front committee, veterans, etc.…) and other stakeholders. Prior to the consultation, the project provided consulted groups with relevant documents in Vietnamese. The first round of consultation workshops were

organized at commune, district, and provincial levels in August and September 2016 while the second round of public consultation was conducted in December 2016. Workshop participants also included representatives from CPO, CPMU, PPMU, and the Project's provinces, districts, local and international consultants.

127. Main objectives of the first round consultation were to inform about the project concept, the potential impacts on local environment and communities, and the proposed plan to prepare safeguard documents (ESMF/ESMP, RPF/RAP, and EMPF/EMDP) to mitigate potential negative impacts that may occur during implementation as well as to collect information on the ground and listening to their concerns and suggestions. All participants agreed with the proposed activities, the expected potential impacts, and the proposed measures to mitigate the negative impacts. The participants also mentioned that as the Project could benefit most local communities through increasing aquatic resources, supporting economic development of local people, and strengthen capacity to prevent typhoon affecting on the sea dyke, etc., the project manager should speed up the preparation and take serious actions to mitigate negative impacts during project implementation. Their concerns on disclosure of mitigation plans, UXO clearance to reduce safety risks, ensuring compliance of contractors, monitoring by local agencies and communities, etc. have been incorporated into the draft ESMF. The second round consultation confirmed agreement to the proposed activities and mitigation measures described in the draft ESMF which provided more details on project activities and mitigation measures. It was agreed that the proposed project will not adversely affected existing critical habitats, local environment, and local people while the proposed infrastructure will be small and all potential negative impacts will be mitigated. The concerns related to site selection, conditions for plantation, locations of the proposed infrastructure (such as breakwaters, etc.), budget allocation, participation of local communities in the project activities, and possible incomce generation for local people, etc. will be considered by the technical assistance teams to be hired during project implementation to conduct detailed design and site selection of the subprojects. All mitigation plans will be disclosed to local communities. *Annex 7* provides a summary of the consultation meetings.

1.25 Public Disclosure

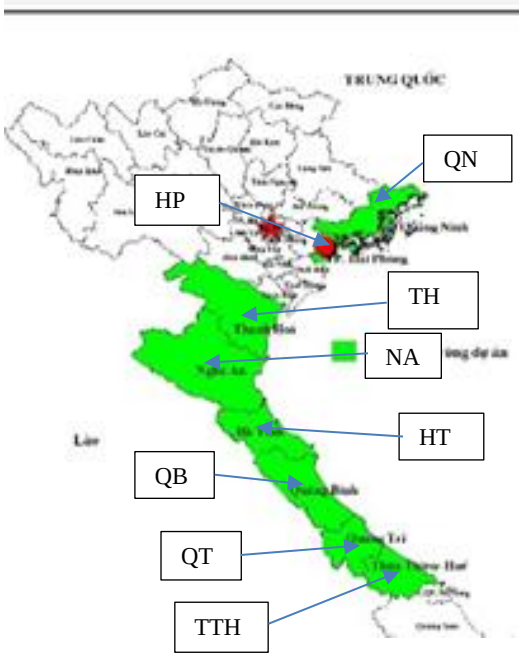
128. The ESMF, RPF, and EMPF, both English and Vietnamese, were disclosed at MARD website on January 20 2017. Their Vietnamese versions were also disclosed at the project provincial, district, and commune level on January 25-30, 2017. The ESMF (English) was also disclosed at the WB's external website on February 3, 2017 for public disclosure. During Project implementation all the ESMPs, RAPs, and EMDPs including safeguard monitoring reports will be discussed at Project websites at CPMU and the Project provinces. In accordance with the Article 16 of the Decree no. 18/2015/ND-CP, EIA and EPP after being approved by authorized governments, will be disclosed at offices of Commune's People Committees where the community consultations were carried out so that local people could follow up and monitor.

Annex 1. Project Environmental and Socioeconomic Background

1. This annex briefly presents overall environmental and social background of the Project area (A1.1), development pressures and threats (A1.2), coastal livelihoods in Project area (A1.3), coastal forests management in Project area (A1.4), and coastal forest management issues identified during Project preparation (A1.5). This information was used as the basis for development of guidelines for safeguard mitigation measures to be carried out during the implementation of the Project (FMCRP).

A1.1 Socio-economic Background

Box A1.1 Project provinces	Project area



The Project area covers 8 provinces and it can be divided into 03 sub-regions:

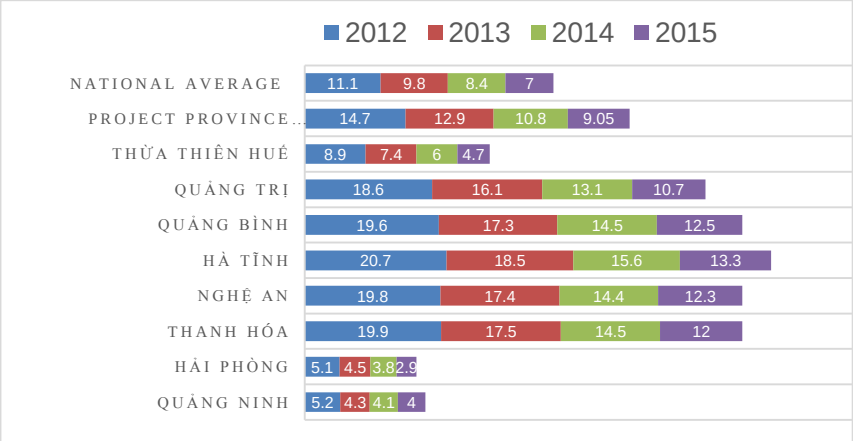
- ***KV1****:* the coastal mountainous area in northeast of Quang Ninh (QN) to Hai Phong (HP).
- ***KV2:*** the north-central area of low mountains/ hills and narrow coastal plain from Thanh Hoa (TH), Nghe An (NA), and Ha Tinh (HT).
- ***KV3:*** the area of low mountains/hills and narrow coastal plain from Quang Binh (QB) to Quang Tri (QT) to Thua Thien Hue (TTH).

The area has a tropical monsoon climate, with a wide range of temperature and humidity suitable for development of mangroves (in Northern Quang Ninh, Ha Tinh and Thua Thien Hue) and other coastal forests. The area also suffers from hurricanes and tropical depressions. Average of 2.5 storms directly hitting the coast of these provinces every year, and Quang Ninh has the highest number of storms hit in the past.

2. ***Population and gender:*** Total population of the eight project provinces in 2015 is about 14 million of which Thanh Hoa (3.1 million) and Nghe An (3.5 million) are the largest. An average population density of these provinces is 333 people/km^2 in which Hai Phong has the highest density (1,285 people/km$^{2)}$ and Quang Binh has the lowest (108 people/km$^{2)}$. Average annual population growth rate (2012 – 2015) was 0.75% which is lower than that of the national average during 2009-2015 (1.1%), and Hai Phong has the highest rate while Thanh Hoa and Ha Tinh provinces is lowest. Data from survey (September 2016) suggested that majority of households are run by men, except for some women-owned households because of single motherhood, divorce or death of husbands. In coastal rural areas, women are engaged in agriculture, fishing, while men are engaged in non-agricultural activities or as seasonal workers in the urban. Women have also involved in social activities more than in the past and are taking on two roles at the same time and have difficulty managing the time and access to opportunities.

3. ***Poverty Profile:*** Vietnam has achieved great achievements in hunger eradication and poverty alleviation over the past two decades through the implementation of the Program 135, Resolution 30A of the Government. The poverty rate of the project provinces has also significantly improved between 2012 and 2015. The poverty reduction programs contain specific actions such as access to low credit schemes, free medical care and education as well as vocational training and extension services for agriculture, forestry and fishery sectors to enhance productivity. Many poor rural households in the project provinces have benefited from these programs.

Poverty profile of the project provinces as per GoV's new poverty line from 2012 to 2015



4. Among others, Ha Tinh remains the highest poverty rate, followed by Quang Binh, Nghe An, Thanh Hoa mostly because of the proportion of high poverty rate in the mountainous districts. People's living standards in the coastal areas are often higher than people in mountainous areas and as such poverty rates in the coastal areas lower than in the mountains areas. But coastal areas are often affected by natural disasters so people in these areas still face difficulties.

5. ***Ethnicity:*** In the 8 provinces, most people living along the coast is Kinh (more than 90%) including those spouses which can be ethnic minority. The rest are ethnic minority including Tay, Thai, Muong, Khmer, Chinese, Nung, Mong, Dao, Tho, Day people, etc. Most of these ethnic minorities live in mountainous area of the provinces. *Table A1.1* presents ethnic composition of the 8 provinces.

Table A1.1. Ethnic composition in the 8 project provinces (person)

Province	**Total population**	**Total of EM**	**% of EM**	**Key EM**			**Other groups**
				Tay	Thai	Dao	
Quang Ninh	1,200,300	69,874	5.82%	3,501	450	59,156	6,767
Hai Phong	1,963,300	3,204	0.16%	1,050	243	65	1,846
Thanh Hoa	3,514,200	601,074	17.10%	795	225,336	5,465	369,478
Nghe An	3,063,900	349,705	11.41%	744	259,132	39	89,790
Ha Tinh	1,261,300	1,529	0.12%	280	500	84	665
Quang Binh	872,900	630	0.07%	81	332	4	213
Quang Tri	619,900	335	0.05%	42	79	2	212
Thua Thien Hue	1,140,700	1,556	0.14%	145	577	9	825

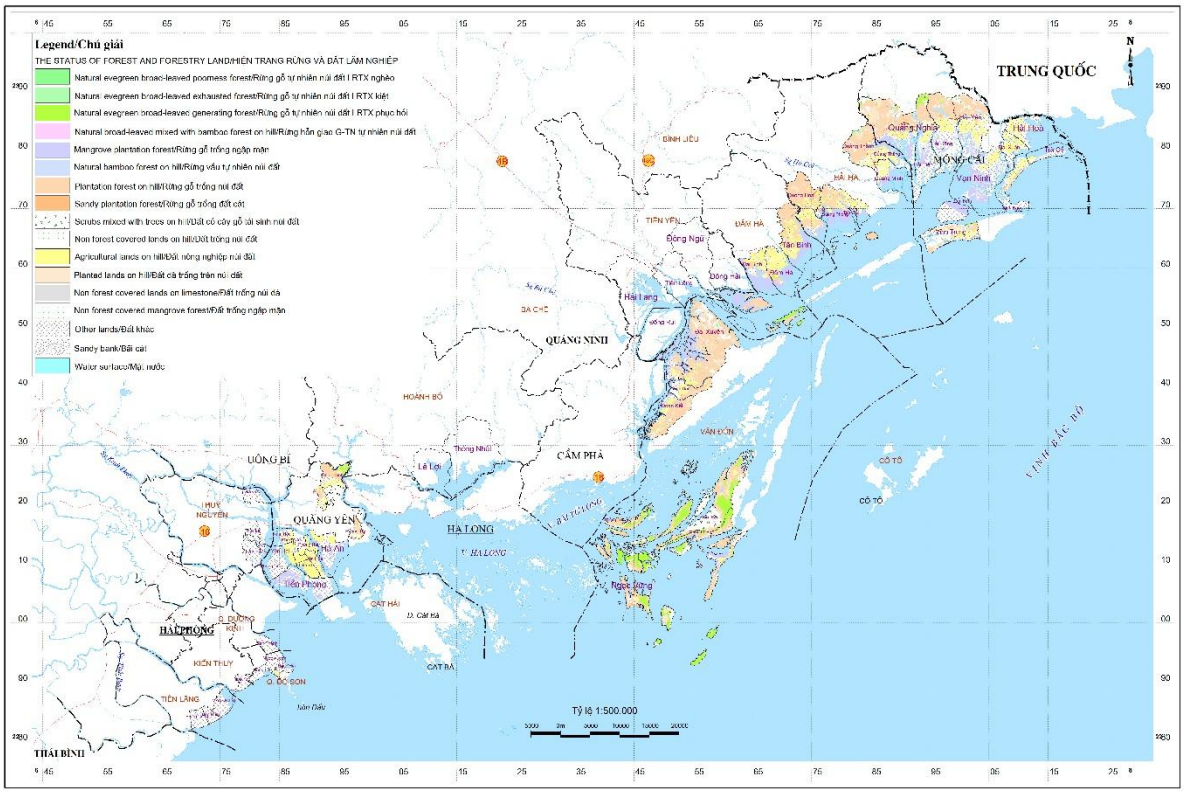
Sources: Institute of Ethnology, Academy of Society and Science, 2014

A1.2 Environmental Background

6. ***Coastal forest:*** The Project area is located in the ecozone considered as lowland rain forests and major land uses are agriculture, mangroves, wetlands, plantation/production, and human settlements. *Current land use* data suggested that in the Project provinces, forestry land area is over 50% in total land use in general except Hai Phong city where forestry land is only 20%. It appears that there

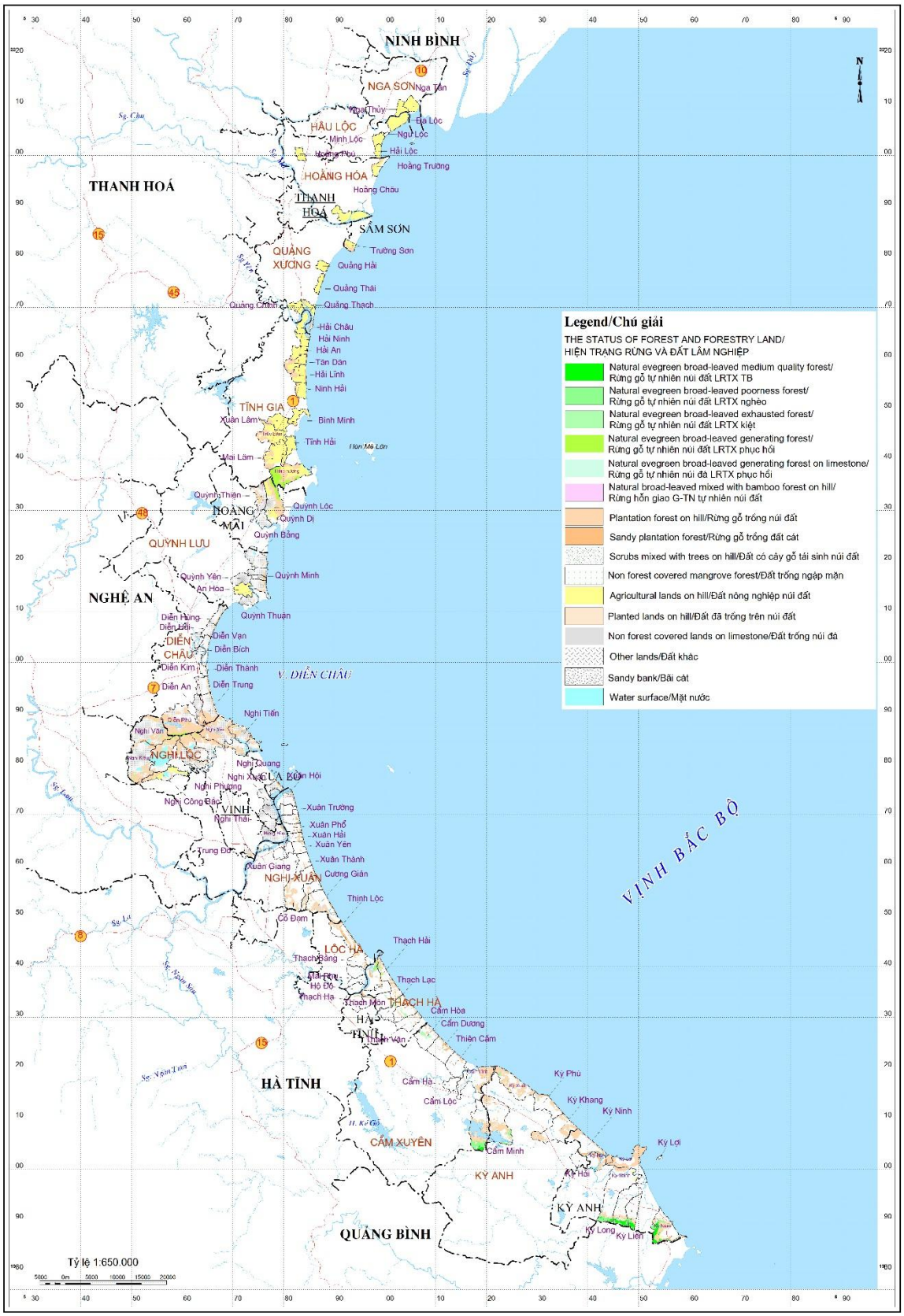
is large available land for plantation, enrichment of forest. In the Project provinces, the mangrove forest land is about 24,038 hectares (ha) comprising 88% (21,146 ha) of protection forest, 1% (274 ha) of special use forest (SUF); 2% (418 ha) of production forest; and 9% (2,200 ha) of unplanned area. The area of sand forests is 28,354 ha comprising 4 ha of SUF area; 10,384 ha of protection forest area; 9,665 ha of production forest area; and 8,301 ha of unplanned area. There are on-going plantation activities by the provinces and local, most of them are native species including bamboo forests while there are some changes in converting small timber plantations into large timber plantations. However, the planting activity suffers from lack of budget and difficulties with seed management, and there are some guidelines/standards have been developed.

FOREST STATUS MAP OF QUANG NINH - HAI PHONG REGION

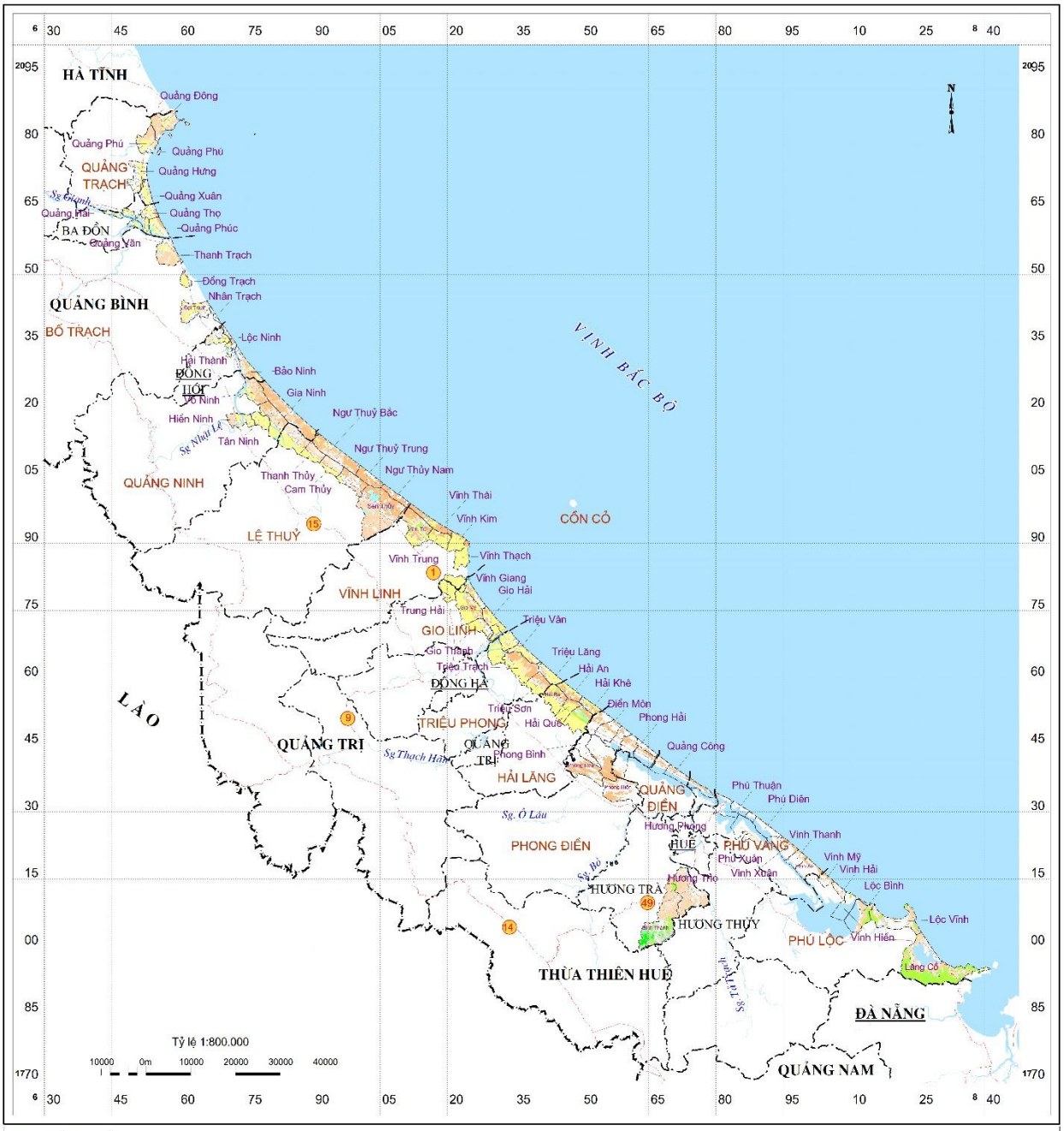


7. In the Project area, there are about 235,000 ha of forest land comprising 69% of forest area and 31% of non-forest land and other specialized land. It is estimated that a total forestry land area likely to be involved in the FMCRP implementation is about 72,412 ha or 31% of the total forestry land area. Of which, the forest area of 50,622 ha will be joined in the project activities of forest management and protection, and the very-poor forest area of 12,085 ha will be included in the project activities of upgrading and enrichment planting.

FOREST STATUS MAP OF THANH HOA - HA TINH REGION



FOREST STATUS MAP OF QUANG BINH - THUA THIEN HUE REGION



Legend/Chú giải

THE STATUS OF FOREST AND FORESTRY LAND/HIỆN TRẠNG RỪNG VÀ ĐẤT LÂM NGHIỆP

- Natural evegreen broad-leaved medium quality forest/Rừng gỗ tự nhiên núi đất LRTX TB
- Natural evegreen broad-leaved poorness forest/Rừng gỗ tự nhiên núi đất LRTX nghèo
- Natural evegreen broad-leaved generating forest/Rừng gỗ tự nhiên núi đất LRTX phục hồi
- Natural broad-leaved mixed with bamboo forest on hill/Rừng hỗn giao G-TN tự nhiên núi đất
- Plantation forest on hill/Rừng gỗ trồng núi đất
- Sandy plantation forest/Rừng gỗ trồng đất cát
- Scrubs mixed with trees on hill/Đất có cây gỗ tái sinh núi đất
- Natural bamboo forest on hill/Rừng vầu tự nhiên núi đất
- Planted lands on hill/Đất đã trồng trên núi đất
- Non forest covered mangrove forest/Đất trống ngập mặn
- Agricultural lands on hill/Đất nông nghiệp núi đất
- Other lands/Đất khác
- Sandy bank/Bãi cát
- Water surface/Mặt nước

8. ***Biodiversity:*** The Project area is considered rich in flora and fauna. Provincial data suggested that in the n*ortheast coastal areas* of estuaries (KV1), coastal areas and saline soil areas the mangrove vegetation is relatively rich, including high salt-tolerant species[15]. Due to large mangrove area, fauna system is diverse,[16] but fluctuate over time. The coastal low hills and mountains (KV2-KV3) have subtype tropical secondary evergreen human affected forests. In the coastal area with saline soils, mangrove communities include popular species of brackish water and Bần chua (*Sonneratia caseolaris*) is the most dominant specie, distributed in the estuaries (Kien Thuy, Tien Lang), from 5 to 10 m high. To protect the dike, the people in the coastal areas have planted forest strips of Trang (*Kademlia candel*), Bần chua (*Sonneratia caseolaris*). The planting of Trang (*Kademlia candel*) also created conditions for natural regeneration of some species such as Sú (*Aegiceras conmiculatum*) and Bần (*S.caseolarris O.K.Niedenzu*), creating habitats for a wide variety of seafood and migratory birds. In coastal arid hills there is subtype scrub, secondary grassland, with some natural regeneration species including drought-tolerant native species. The natural vegetation has a stable structure and capacity in protection against wind and moving sand. This vegetation is considered to be one of the typical unique ecosystem coastal areas so it is necessary to carry out researches for natural regeneration of this forest type.

9. ***National Parks & Natural Reserves.*** In the Project provinces, there are 11 natural reserves and 7 national parks (*Table A1.2*). These areas were established for protection of natural forest ecological system, biodiversity, environment, landscape and habitats for wild animals and plants, tourism attraction, and/or historical monuments. While most of these areas are located far away from the coast there are 3-4 areas that may be located close to the subproject areas that likely to be selected.

Table A1.2 National Parks and Natural Reserve in the Project Area

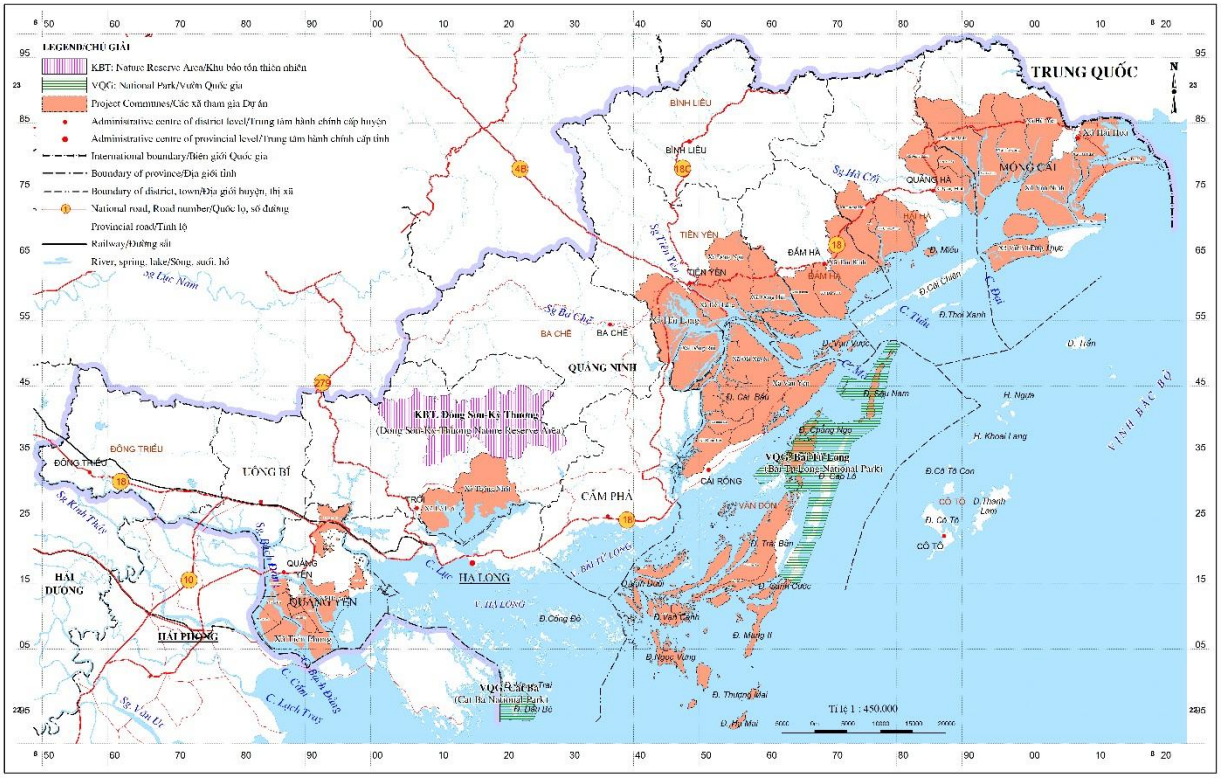
No	Name	Province	Area (ha)	Purpose in establishment
I	**National parks**			
1	Bai Tu Long	Quang Ninh	15,283.00	Protect forest ecosystem on island, biodiversity, landscape and environment
2	Cat Ba	Hai Phong	15,996.36	Protect forest ecosystem on island, population of white-headed langur and other threatened species
		Quang Ninh	1,366.60	
3	Ben En	Thanh Hoa	13,886.63	Protect nature forest ecosystem, biodiversity, landscape and environment
4	Pu Mat	Nghe An	93,524.70	Conservation for forest resources and habitat for elephant, tiger, Sao la and other threatened species
5	Vu Quang	Ha Tinh	52,741.50	Conservation for forest resources and habitat for elephant, tiger, Sao la and other threatened species
6	Phong Nha Ke Bang	Quang Binh	123,320.78	Protect forest ecosystem on limestone, threatened species, nature heritage, landscape/tourist attraction
7	Bach Ma	Thua Thien Hue	34,380.00	Conservation for forest resources, biodiversity, landscape, environment and historical monument
II	**Nature reserve areas**			

[15] According to the report (DARD of Quang Ninh, 2016). Mangrove flora system in *Quang Ninh* has 16 major species and 36 subspecies. Some main species are Đâng (R.stylosaa Griff), Bần (S.caseolarris O.K.Niedenzu), Trang (Kademlia candel), Vẹt dù (B. Gymnorrhiza Lam), Sú (Aegiceras conmiculatum), Mắm (A. Marina Vieh). The coastal hills and mountains of Quang Ninh province has major species such as Thông nhựa (Pinus latteri), Keo lá tràm (Acacia auriculiformis), Keo tai tượng (Acacia mangium), bạch đàn (Eucalyptus). In addition, there are a number of native species such as *Huỳnh, Vạng, Đào, Trám, Ươi, Lèo heo, Sến, Tếch.*

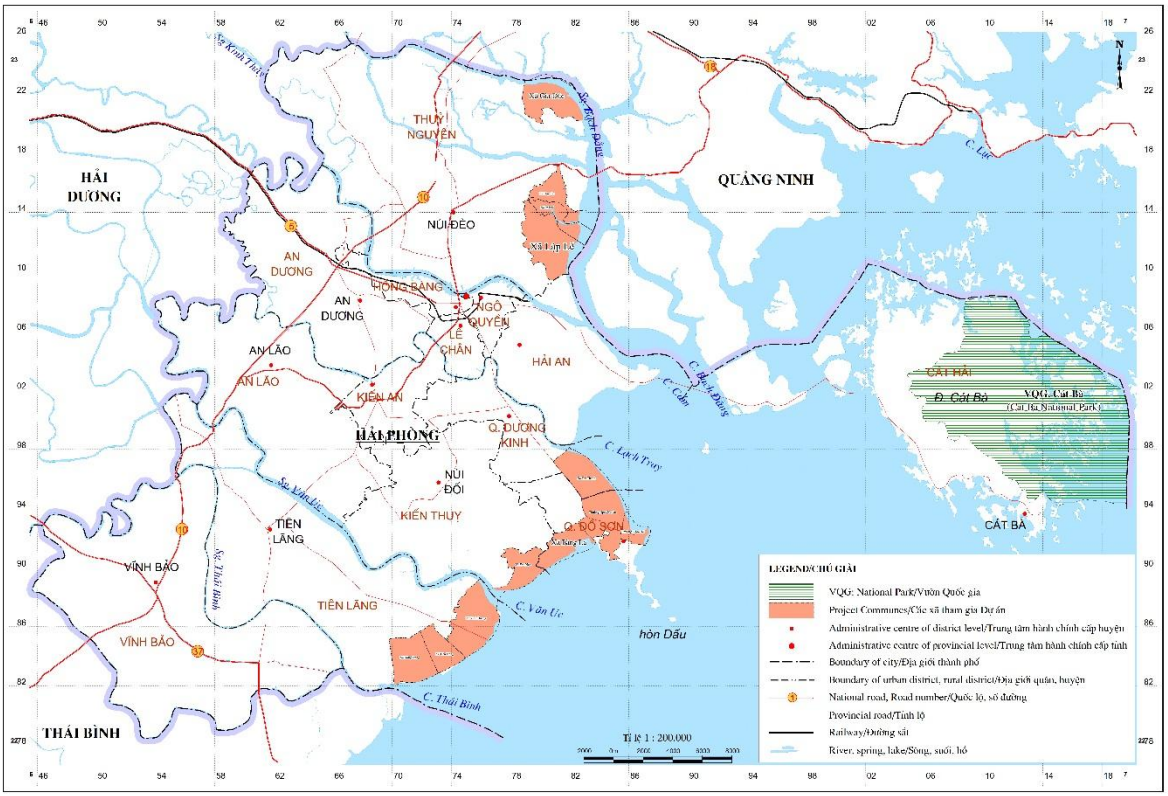
[16] According to DARD of Quang Ninh, 2016, there are 9 to 16 species of mammals; 121 to 147 species of birds; 8 to 18 reptile species; 5 to 11 amphibian species; 37 to 71 species of fish; and 110 to 288 of benthic species. The benthic molluscan and crustacean species and worms (*Polychaeta*) are mainly *Gastropoda* and *Bilvalvia*. Gastropoda has 70 species in 30 families and Bilvalvia has 81 species in 24 families. There are many important families such as Ngao, Sò, Ốc nhảy, Ốc đĩa (Clams, oysters, snails ...) with many species that have economic values such as Ốc đĩa sú (Neritabalteata), Vạng (Polymesoda), Ngán (*Lucina Philippinarum*). Ngán (*Lucina Philippinarum*) is the endemic specie of Quang Ninh that has been named in the red book of Vietnam.

No	Name	Province	Area (ha)	Purpose in establishment
1	Dong Son - Ky Thyong	Quang Ninh	15.110,30	Conservation for lowland forest resources, biodiversity, landscape, environment
2	Pu Hu	Thanh Hoa	22.688,37	Protect nature forest, threatened species
3	Pu Luong	Thanh Hoa	17.171,53	Protect nature forest ecosystem, Delacour's langur and other threatened species
4	Xuan Lien	Thanh Hoa	23.815,50	Conservation habitat in the nature forest ecosystem, and threatened species
5	Pu Hoat	Nghe An	34.589,89	Protect nature ecosystem and habitat for elephant, tiger, Sao la.
6	Pu Huong	Nghe An	40.186,50	Protect nature forest and habitat for wild plants and animals
7	Ke Go	Ha Tinh	21.768,80	Protect nature forest ecosystem, protection for Ke Go lake
8	Bac Hyong Hoa	Quang Tri	23.486,00	Conservation for nature forest resources and biodiversity
9	Dakrong	Quang Tri	37.681,00	Conservation for nature forest resources and biodiversity
10	Phong Dien	Thua Thien Hue	41.508,70	Conservation for nature forest resources and biodiversity
11	Sao la Thua Thien Hue	Thua Thien Hue	15.519,93	Conservation for nature forest resources and biodiversity, Sao la

LOCATIONS OF NATIONAL PARKS AND NATURAL RESERVES IN QUANG NINH PROVINCE



LOCATIONS OF NATIONAL PARKS AND NATURAL RESERVES IN HAI PHONG CITY

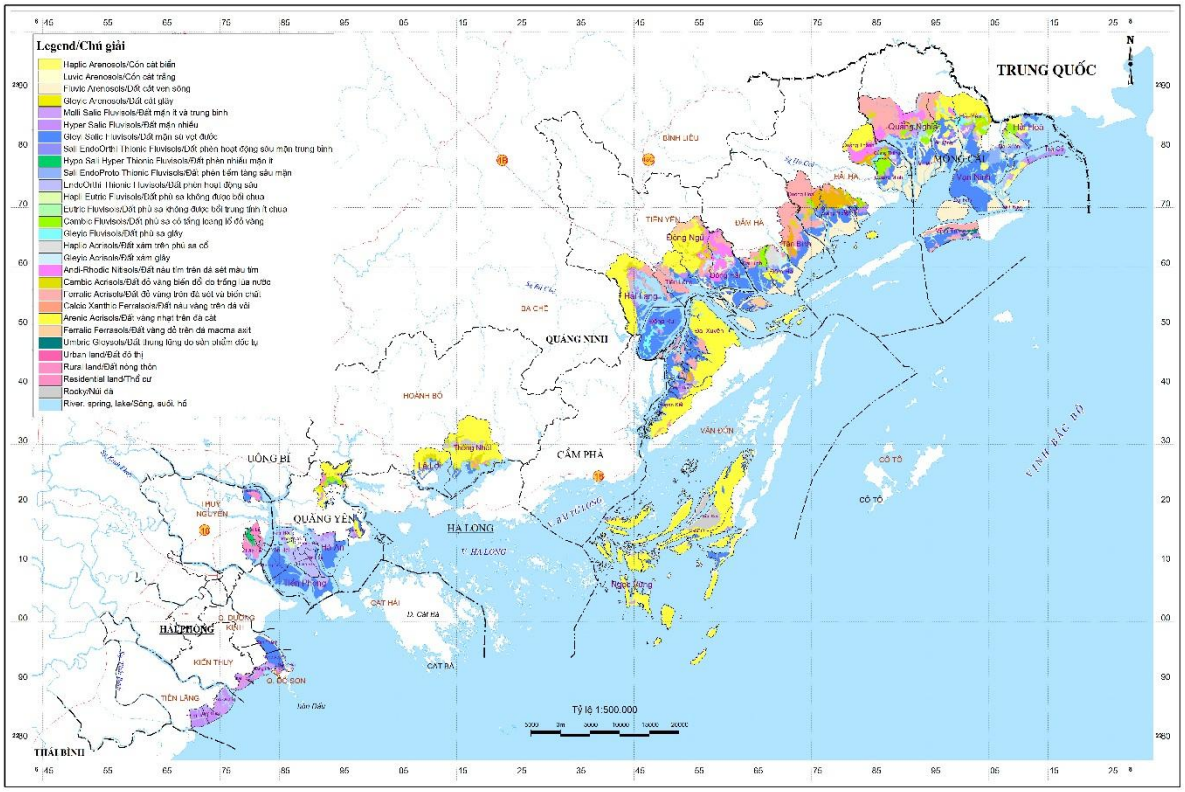


10. ***Environmental Quality:*** Provincial monitoring data in the provinces during 2011-2015 suggested that the environmental quality (soil, air and water) in the Project areas is good in general and data collected in September 2016 confirmed this conclusion. Most of pollutant levels in soil, surface water, ground water, coastal marine water and air meet the national standards[17]. Nonetheless, it is observed that pollution loads in many areas is very high.

[17] (QCVN 03-MT: 2015/BTNMT on the allowable limits of heavy metals in the soils; QCVN 15:2008/BTNMT on the pesticide residues in the soils; QCVN 08-MT:2015/BTNMT on surface water quality; QCVN 09-MT:2015/BTNMT on groundwater quality; QCVN 10-MT:2015/BTNMT on quality of marine water quality; QCVN 05:2013/BTNMT on ambient air quality; QCVN 26:2010/BTNMT on noise; QCVN 27:2010/BTNMT on vibration; QCVN 43:2013/BTNMT on sediment quality).

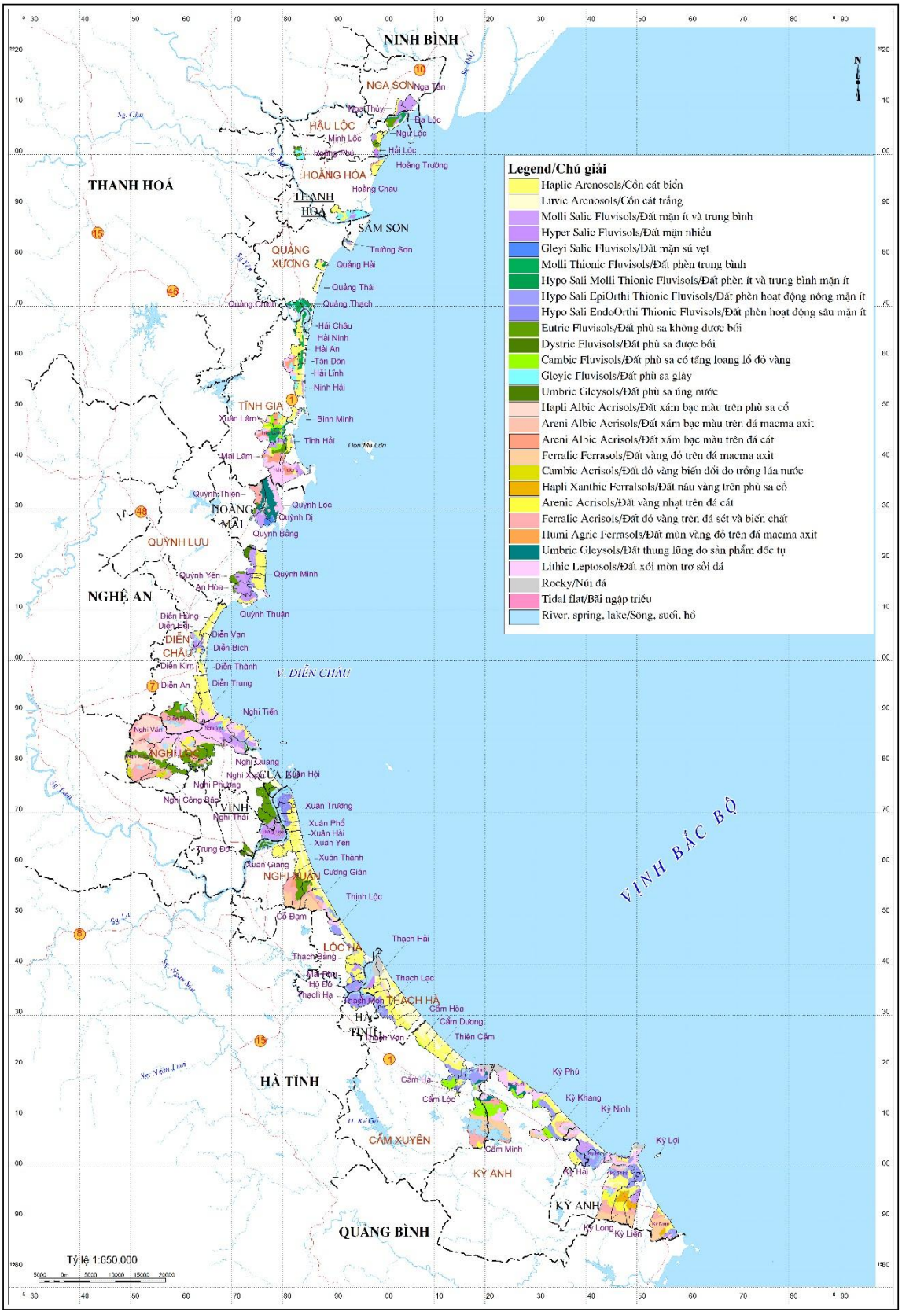
11. Soil resource: The Project coastal protection forests are mainly located on two soil groups i.e. Salic Fluvisols (SF) and Arenosols (AR)[18]. SF soil has salic properties but without sunfidic and sunfuric layers from the surface down to the depth of 125 cm. However, SF in the Project provinces they have rough structure with lower nutrient content than those found in coastal provinces of the Mekong Delta. SF is widely distributed in the coastal areas of *Quang Ninh, Hai Phong, Thanh Hoa, Nghe An and Thua Thien Hue* provinces. The AR soil type is mainly distributed in the coastal provinces of *Nghe An, Ha Tinh, Quang Binh, Quang Tri and Thua Thien-Hue.* AR is formed by the sedimentation in the sea combined with low sand dunes and forming relatively flat land strips in coastal areas.

SOIL MAP IN THE PROJECT AREAS OF QUANG NINH - HAI PHONG REGION

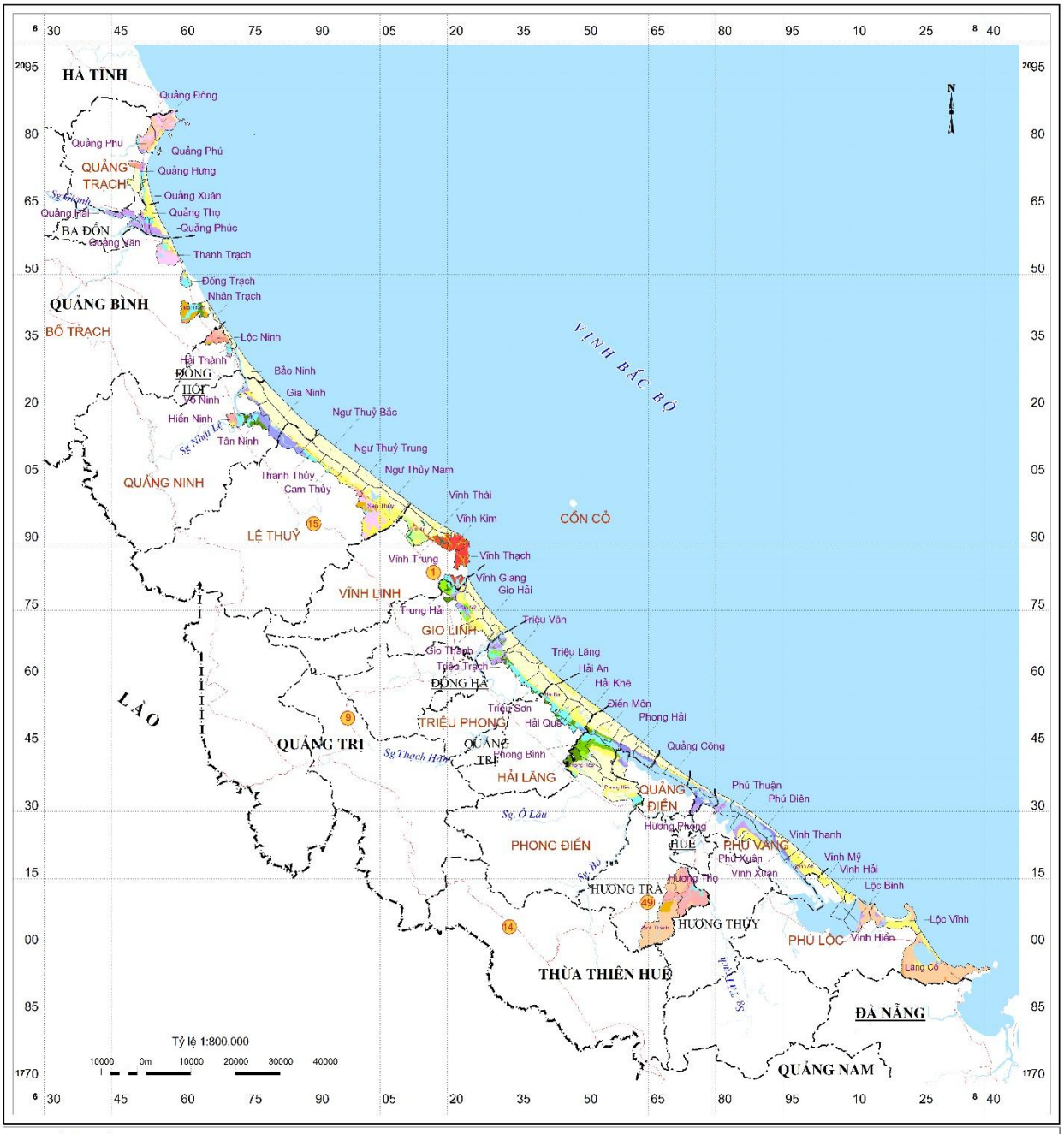


[18] Salic soil types are suitable for mangrove species, and they are normally formed near the estuary where the terrain is mostly low ≤ 1 m (the highest point is only about 2 m above mean sea level) comprising river and sea sediments and plant species favor this type of soil include hydrophilic and salt-tolerant species.

SOIL MAP IN THE PROJECT AREAS OF OF THANH HOA, NGHE AN AND HA TINH REGION



SOIL MAP IN THE PROJECT AREAS OF OF QUANG BINH, QUANG TRI AND T.T.HUE REGION



Legend/Chú giải

- Haplic Arenosols/Cồn cát biển
- Luvic Arenosols/Cồn cát trắng
- Luvic Arenosols/Cồn cát vàng
- Molli Salic Fluvisols/Đất mặn ít và trung bình
- Hyper Salic Fluvisols/Đất mặn nhiều
- Sali EpiOrthi Thionic Fluvisols/Đất phèn hoạt động nông, mặn trung bình
- Sali EndoOrthi Thionic Fluvisols/Đất phèn hoạt động sâu mặn trung bình
- Eutric Fluvisols/Đất phù sa không được bồi
- Arenic Fluvisols/Đất phù sa phủ trên nền cát biển
- Dystric Fluvisols/Đất phù sa được bồi
- Cambic Fluvisols/Đất phù sa có tầng loang lổ đỏ vàng
- Gleyic Fluvisols/Đất phù sa glây
- Gleyi Albic Acrisols/Đất xám bạc màu glây
- Hapli Albic Acrisols/Đất xám bạc màu trên phù sa cổ
- Areni Albic Acrisols/Đất xám bạc màu trên đá Mácma axít
- Xanthic Ferralsols/Đất nâu vàng trên đá Bazan
- Ferralic Ferrasols/Đất vàng đỏ trên đá mácma axít
- Ferralic Acrisols/Đất đỏ vàng trên đá biến chất
- Rhodic Ferralsols/Đất nâu đỏ trên đá macma bazơ và trung tính
- Cambic Acrisols/Đất đỏ vàng biến đổi do trồng lúa nước
- Hapli Xanthic Ferralsols/Đất nâu vàng trên phù sa cổ
- Arenic Acrisols/Đất vàng nhạt trên đá cát
- Ferralic Acrisols/Đất đỏ vàng trên đá sét và biến chất
- Humi Agric Ferrasols/Đất mùn vàng đỏ trên đá mácma axít
- Umbric Gleysols/Đất thung lũng do sản phẩm dốc tụ
- Lithic Leptosols/Đất xói mòn trơ sỏi đá
- Fibric Histosols/Đất than bùn
- Umbric Gleysols/Đất lầy
- River, spring, lake/Sông, suối, hồ

12. ***River systems:*** The Project area receives water flows from a dense river system (about 0.5-1 kilometer (km) per square km (km2) with northwest and southeast directions) and there is an estuary for almost every 20 km along the coast. The major river systems that have significant impact to coastal regions are the Red River, Thai Binh, Ca, Ma, Thu Bon rivers. Flood season is often happened from July to October for the northern region and Thanh Hoa province, from September to December for the easttern region of Truong Son mountain chain, and from July to November for the western region of Truong Son mountain chain. Currently, the major river systems have many hydroelectric projects, thus affecting sedimentation volume for coastal areas and affecting erosion status of coastal areas, sea dikes and coastal construction works.

13. ***Tidal and oceanic regimes:*** Tidal along the coast of Vietnam is complicated as it is a mix of two complex tidal systems. In general, diurnal tide occurs from Quang Ninh to Thanh Hoa while irregular diurnal tide occurs from Nghe An to northern part of Quang Binh and irregular semi-diurnal tide in southern part of Quang Binh to Thuan An (Hue). In the winter, height of the northeast waves reach 2-3 meters (m), with cycle from 11-12 second, the frequency of 60-70%. In the summer, direction of waves is south, southwest and southeast. The tidal systems affect strongly to the socio-economic activities of coastal inhabitants. Especially when there are strong winds or storms, tides causing water-level to rise. When there are northeast or southwest monsoons, the water-level can rise higher than normal from 10-30 centimeters (cm) and intrude deeply into the rivers from 10-20 km. When storm occurs, the water level often rise about 1 m, the maximum can reach 2.0-2.5 m. The overlap of the highest tides, tsunamis and water-level rise will heighten destroy level of sea power, causing erosion of coast and sea dikes. Under the impact of climate change, in recent years coastal and sea dyke erosion occurs more powerful and complex, damaging agriculture and industry infrastructures in coastal areas.

14. ***Seashore and clay-mud tidal plains:*** The area is the main territory for development of mangroves. In KV1 region, clay-mud flat can be found in most area along the coastline. Although this area has the highest tidal water level (reaching 4.5 m), but tidal plains are narrow and the main composition is the bedrock with thin layer of clay-mud in some areas. A relatively large areas of the tidal clay-mud plains are often located in the river estuaries such as (Cat Hai, Tra Co - Hai Ninh), or in combination with areas behind the islands (Dong Rui), river or sea bays (Do Son, Cua Luc). Along KV2 and KV3 regions, the river systems are short and steep (almost no middle stream), and the river flows into the coastal narrow plains before discharging into the East Sea or lagoons, the tidal clay-mud plains occupy only a small area in estuaries.

A1.3 Development Pressures and Threats

15. ***Industries, roads, ports, harbors:*** As the Project provinces are strategically located in area with high development potential connecting to China and other Asian countries (Lao PDR, Thailand, and Myanmar) as part of the East-West economic corridor, promotion of e*conomic zone development* zones have been adopted and actions are undertaken to attract more investors for many large development projects. The coastal road and waterways systems in the Project area are also rapidly developed. There are networks of national roads, provincial roads, district roads and inter-communal roads however, their distribution and quality are uneven, and road density in many coastal areas (especially sandy areas) are low and the road-beds are unstable and often eroded. Along the coastline, waterway transport has been developed, and there are many seaports, river ports and boat parking places. Hai Phong is one of the most important deep seaports in the country. The Project area has favorable factor supporting more good shipping, seafood exploitation, boat moorings to avoid the wind and storms, etc. However, these activities have been putting pressure on coastal resources and most of mangrove and coastal forests have been converting to other land uses while increasing pollution level in the areas and marine environment.

16. Key development activities/plans can be summarized as follows:

- ***KV1:*** *Quang Ninh* has a long coastline with over 250 km, wide marine area with 6,000 km^2, over 2,700 islands, more than 40,000 ha of tidal flats and 20,000 ha of bays. There are 2, 3, 4 of Cai Lan deepsea ports, built access stations and paths to island communes, built educational institutions and medical facilities, irrigation canals, reservoirs, communications systems, radio and television coverage. *Hai Phong* is a port city and is the main gate to the sea of the northern provinces. The area is the northern key economic zone and is an important transport hub for road, rail, aviation and maritime of both domestic and international connections. Hai Phong has high potential for marine economic development, sea port, marine tourism, fisheries, oil and gas and other marine economic services, etc. Industry also play a major role (31% of the city's GDP). Agricultural economy shifted towards industrialization and modernization ensuring the food security. The proportion of animal husbandry production accounted for 40-42% of the entire agricultural value (nearly 35% in 2005). Large service centers of the north coast, Cat Ba and Do Son islands get investment focus; however, these areas are also important for tourism. Development activities have been rapid in the area.

- ***KV2:*** *Thanh Hoa province* rapidly develops its production and tradings across all sectors, focusing on coastal economic development such as petrochemical industry, steel rolling, shipping mechanical, thermal power, cement, construction materials, textiles, footwear, seafood processing. Efforts are made for attracting domestic and foreign enterprises to invest in Nghi Son economic zone, industrial parks, industrial clusters and craft villages. Thanh Hoa coastal area is well known for the two famous resorts of Sam Son and Hai Tien, and the province is developing tourism infrastructure in Sam Son to become a tourist city. *Nghe An province* has 80 km of coastline with a plenty of resources and advantages for development of the coastal economy. There are existing economic zones (188.3 km^2) and it is expected to become a center of international trade, industry, tourism, and seaport in the north central part of Vietnam. Nghe An southeastern economic zone also consists of non-tariff area (Cua Lo port). *Ha Tinh province* has nearly 140-km-coastline, and is an important economic center for the area. Investment in traffic infrastructure was implemented to ensure the link between the regions. Economic zone has become a business center with Laos and other countries in the East-West economic corridor, and more are planned for agriculture, steel, and textiles, etc. Coastal commercial services strongly developed, especially those related to Son Duong deepwater port (Vung Ang) which has capacity of 30 million tons of goods/year and becoming a key economic zone of the region and the whole country. *Ha Tinh* is part of the East - West economic corridor along Highways of 8A, 12A connecting to Lao PDR and the northeast of Thailand with a short distance of about 400 km. The Son Duong Deepwater port is also connected to the international maritime routes to other countries in South Asia, North America and Europe.

- ***KV3:*** *Quang Binh* has more than 100km coastline with five estuaries, in which Nhat Le and Gianh are the large ones. The economic development concentrates on investment and construction for the Hon La Economic Zone, so that it could become an integrated and multi-sector economic zone with key fields of supporting industry, power energy production, shipbuilding, fishing boats, cement industry, glass production, along with other supporting industries. The province also invests in Hon La port services, tourism development in Vung Chua – Dao Yen, urban area and other economic sectors. *Quang Tri* has 75 km of coastline and it has advantages to develop the coastal economy. The province's key sectors include mining, marine transport services, tourism, etc. These sectors contribute to the anual GDP with a large proportion. Along with planning for My Thuy deep water port, the Prime Minister has agreed to supplement the Southeast economic zone of Quang Tri into the planning of the coastal economic zone in Vietnam until 2020. This project creates a large seaport complex, and enhances capacity building through the seaports of Quang Tri, a continuous East-West economic corridor transport axis. *Thua Thien Hue* is located in

a strategic position - an important gateway of the East -West economic corridor. Along with a proper development strategy, open mechanism and policy, the province have been attracting many investors. The Chan May - Lang Co Economic Zone has developed into a dynamic and modern economic zone in the central region, a development dynamic and a breakthrough direction of the province in socio-economic development. Currently, the economic zone has attracted many investors with large projects (resort, golf course, industrial zone, port).

17. ***Coastal dikes, culverts, and jetties:*** To protect the area from tidal waves, storm, floods, and other natural disasters, many dikes and other structures were constructed with differnt pruposes and standards and most of them are in poor conditions. Most sea dikes have slope roofs with the width of 3 - 4 m. Key areas are mostly protected by embankments and most of them are reinforced by concrete slabs along the side facing to the ocean to ensuring stability in conditions of waves, wind, tidal affect. The estuary dykes or sea dykes protected mangroves are paved by stone and the main embankment is planted with grass, or grass grows naturally, and with the width from 2 - 3 m. Quang Ninh has seadike of about 66 km long with a narrow width (about 2-4 m) designed to resist tidal effect. Coastal areas from Thanh Hoa to Ha Tinh are frequently affected by natural disasters (especially tropical depression storms). The sea dykes from Quang Binh to Thua Thien Hue are mainly constructed with light silty and sandy soil. Some dykes located behind and far from estuaries and lagoon are sandy clay soil while some dikes have two or three-sided surfaces protected by concrete slabs so that the floods could run over the dykes.

18. There are many culverts under the dikes at different sizes and designs and most of them are in poor conditions and urgently need for upgrading and/or rehabilitation. These culverts were not designed to prevent the effects of flooding, climate change, and/or sea level rise. In addition, there are a number (10 systems) of jetties designed to prevent coastal erosion along the beaches and reduce shifting of sand dunes.

19. ***Coastal erosion:*** Given the nature of coastal system and development activities along the coast, coastal erosion has become a major concern especially with operation of hydropower plants in many upstream areas of the river basins [19]. Information suggested that there are two existing hydropower plants in Than Hao, one in Nheh An, one in Than Thao Hao, and several locations upstream river basins of KV1 area while many other are also planned. Experience suggested that operation of dams upstream could significantly reduce the amount of sediments and nutrients to be deposited in delta area and thus changing the size and/or fertility of delta area over a medium and long terms. Status of coastal erosion can be highlighted as follows:

- ***KV1:*** There are a number of estuaries (Ca Long, Ba Che, Bach Ma estuaries, etc.) which play important roles in providing sediment for a short sections of the coastal shores and creates favorable conditions for development of mangrove plants. The inner coast has less erosion as a result of the main bedrock shore and protection of the outer island while the outer areas suffer from heavy erosion including the eastern bank of Cat Hai Island, the Southern shore of Cat Ba, and the northeast shore of Dong Rui island. The area demonstrates strong local characteristics, that relating to complex oceanographic currents in the bay and the impact of coastal freshwater stream.
- ***KV2 and KV3:*** Natural conditions in these areas are differ from the north (KV1). For KV2, the area is the lower part of Thanh – Nghe delta receiving water from the mountain ridges (Tam Diep,

[19] In Vietnam, to meet the existing and future electricity demands (First quarter of 2010 demand rose by 20.2%), hydropower development has been rapid and causing impacts on both upstream and downstream area. Despite its important roles as a renewable resource replacing fossil fuel power generation, hydropower operations could change sedimentation over time and increase dam safety risks to coastal area. The challenge is to find the right scale and pace of hydropower development so that *natural resources and their uses by other sectors are not adversely affected while biodiversity and social and cultural assets could also be and maintained. Potential losses in development, social and environmental values of biodiversity need to be weighed against the economic and social benefits of hydropower.*

Hoang Mai) and the coast lines are open and directly affected by waves and coastal currents. The river systems are short and steep (almost no middle stream), and the river flows directly into the coastal narrow plains before discharging into the East Sea or lagoons. There are short s*eashore and rocky tidal plains* along Thanh Hoa - Nghe An - Ha Tinh shoreline with sandy sediment with poor nutrition. However, mangrove can be found in areas where mud clay can accumulated and appears to be the best mangrove vegetation in the whole study area. In Ha Tinh, the tidal clay-mud plains occupies only a small area in estuary. The variation of the tidal plains is primarily caused by the effect of the northeast monsoon, cyclones and tropical depressions, coastal oceanographic flows and water and alluvial from rivers. The area adjacent to sea is pretty sloping, the top become high by wind, reaching 3-4 m in some place, but uneven. Sand composition tends to be rougher from north to south. This area is suitable for sandbreak protection forests, reduction of impacts of storms, depressions and shoreline stabilization. The region of Thanh Hoa - Ha Tinh tends to have sediment deposition in the north estuaries and coastal erosion in the south. The region of Quang Binh – Thu Thien Hue is characterised by erosion process, strongly affected by the monsoon, coastal oceanographic flows, storms and tropical depressions.

20. ***Natural disaster and marine accidents:*** Climate features and extreme weather events occur on an annual basis. *Quang Ninh* province has over 250 km of coastline, 6,000 km^2 of sea area with more than 2,700 islands, 40,000 ha tidal flats and 20,000 ha bays, and 10 of 14 provincial districts and towns are adjacent to the sea. The total area of the coastal localities and the islands accounted for 72% of the total provincial area and 72.5% of the total population; the island area itself accounted for 11.5% of the total natural area of the whole province. There were also high risks related to marine accidents. The impacts of the accidents in April 2016 on agricultural production occurred in 4 provinces (Ha Tinh, Quang Binh, Quang Tri and Thua Thien Hue). According to the fisheries sector, the shrimp farming area which completely died was 5.7 ha, equivalent to 9 million of shrimps and 7 tons of commercial shrimp which reached maturity. There were over 3,000 hectares of intensive and semi-intensive shrimp breeding which were affected. 3,218 fish cages died (about 49.884 m^3), equivalent to 1,000 tons of fish. 90 hectares of clam died, equivalent of 900 tons. There were 10 hectares of dead crab. Selling prices of seafood products decreased by 20-30%. There were 3,000 tons of seafood which were inventory and could not be sold. Operations of a number of seafood processing factories only reached 40% of the capacity. There were over 185 hectares of salt fields, with a total output of about 20,000 tons and more than 800 households being affected. The marine environmental incidents also affected the marine tourism activities of the four central provinces. The use capacity of resort rooms reduced from 30 to 40%. In which 12 accommodation establishments including 750 rooms, 72 restaurants and 60 trams in Ha Tinh almost stopped operating. In other provinces, sea tourism was also severely affected.

21. ***Tourism development***: Taking advantage of a long coastline and many major tourist attractions (such as Thuan An, Canh Duong, Vinh Thanh, Vinh Hien Vinh An, Quang Cong, Quang Ngan, and Lang Co,) the Project provinces are focusing on promoting investment into the tourist areas, and they can be summarized as follows:

- ***KV1:*** *Quang Ninh province:* In the localities such as Mong Cai, Co To, Ha Long, Hoanh Bo, Tien Yen... the commercial and service operations from marine tourism have always been promoted and developed by the People's Committee of Quang Ninh province every year. *For Hai Phong city,* development of tourism services with diversity, quality and efficiency has been focused and enhanced, creating initial spillover effects in the area, the region and internationally expanding, confirming the important role in economic and social development; contributing actively and directly to the process of economic restructuring of the city, gradually becoming one of the largest service centers of the Northern Coast. Cat Ba Island and Do Son which are invested, along with Halong Bay become one of the international tourism centers of the country.

- ***KV2:*** *Thanh Hoa* is famous for two tourism resorts such as Hai Tien and Sam Son. The province is building synchronously the infrastructure of Sam Son to soon become a tourist city. *For Nghe An,* Cua Lo town tourism increases steadily every year. Revenue from tourism services in 2012 reached VND 1,460 billion, 19% increase compared to the same period (in which revenue from foreign tourists is about USD 17 million, equally 102% of the same period). The coastal districts of *Ha Tinh* province have development strengths with Thien Cam tourism town (Cam Xuyen) and Vung Ang Economic Zone (Ky Anh). Especially Son Duong deepwater port (Vung Ang) with a capacity of 30 million tons of goods/ year is the key economic area of the region and the whole country. Located in East- West economic corridor, along the 8A, 12A Highways to be connected to Cau Treo and Cha Lo border gates, Vung Ang port is the international maritime routes from which could go to countries in South Asia, North America and Europe. It is the shortest sea gateway of Laos and Northeast Thailand and become important route for tourism development.
- ***KV3:*** In *Quang Binh, t*he coastal tourism sector has been gradually invested in completing the infrastructure to become a key economic sector of the locality. The built tourism areas are constructed such as Sun Spa Resort phase II of Truong Thinh Group Joint Stock company; Vung Chua - Dao Yen Ecotourism Resort and some coastal hotels, gradually meeting the demand in the domestic and international market. *Quang Tri province:* tourism is forming strong economic industry, creating a great contributions to the economy; a number of attractive and typical tourism products are selected to build strong tourism brands such as: travelling to the old battlefields, the Eastern - Western economic corridor, marine – island ecosystem, visiting the relics; strong development of CuaViet - Cua Tung - Con Co island tourism and services areas. Cua Tung Beach has been regarded as the Queen of the Indochina beaches (French Navy). *Thua Thien Hue province:* the locality has many tourism advantages with 4 tangible and intangible cultural heritages of the world. The coastlines in the province have many tourist attractions such as Thuan An, Canh Duong, Vinh Thanh, Vinh Hien Vinh An, Quang Cong, Quang Ngan, Lang Co. Thua Thien Hue province is now focusing on investment and promotion of tourist areas, development of infrastructure and promotion of marine tourism, making Thua Thien Hue marine tourism becam

22. ***Agriculture and aquaculture production:*** The economic structure in the Project area is diverse. Production activities include: (i) agricultural production (cultivation of rice, maize, potato, cassava, peanuts, beans, vegetables, fruit and livestock such as buffalo, cow, pig, goat, chicken, duck, etc.); (ii) aquaculture production (cultivation of shrimp, clams and cockle and harvesting of fisheries under mangrove forests and freshwater fish); (iii) forestry (protection forest plantation, forest management contract, wood exploitation, oil extraction,); (iv) industry (fish stores and processing, fishing ports, etc.); (v) handicraft (small traders, fish sauce production, etc.), and (vi) agricultural services (fish and shrimp hatcheries, foodstuff for shrimp, etc). Although with many sources of livelihoods, but income of households in the Project areas also depends on aquaculture production due to characteristics of population distribution and natural conditions.

23. ***Forest exploitation and utilization:*** There are also forest exploitation. However, the 2016 data suggested that exploitation of forest products are mainly conducted in the areas of production forests and scattered trees. In the Project region, the timber logging volume is over 5.6 million m^3 and the average logging volume is 1.12 million m^3/year. The increased or reduced timber volume of each year and each stage depends on business cycle of plantation timber. The products mainly include construction wood and wood chips. Timber is sufficiently provided for processing, a part of timber is provided for outside places and for export. The increased values of forestry production have created more jobs and improved income for rural people in mountainous areas, contributing to hunger elimination and poverty reduction as well as contributing revenue to the provincial budgets. Woods are also harvested for firewood.

- ***KV1:*** In Quang Ninh and Hai Phong, due to rather large income from aquatic products of mangrove forests, local people living in the coastal areas mainly exploit natural aquatic resources under the forest canopy. Their activities are spontaneous and uncontrollable, causing the significant impacts to the mangrove ecosystem. In addition, it can use many coastal mudflat areas for planting mangrove forests. However, due to economic benefits, the localities have conducted the aquaculture area planning (clam raising) without concerns to forest development.
- ***KV2-KV3:*** In the provinces from Thanh Hoa to Thua Thien Hue, although the coastal forest area is production forests, these forests are planted in the site condition of coastal sandy soil that is dry with poor nutrition, thus trees slowly grow with low productivity. In general, in this region, forests have no by-products and it is difficult to implement agroforestry. The coastal forest strips are mainly used for protection purpose (wind breaking, flying sand prevention), moisture retention, improvement of sandy soil, thereby some agricultural crops such as sweet potatoes, beans can be planted. In the long-term, these production forest areas should be planned as protection forests.

24. ***Wood processing and forest product market:*** There are more than 300 facilities of production and processing of forest products and fine art handicraft articles in the Project region, of which some facilities are the State enterprises and cooperatives and some other facilities are at household level. The main products include production of wood chips, plywood, boat repairing; lath processing; wooden products for home use. The used wood materials are from plantations and scattered plants or imported from other places inside and outside the project region. The equipments used for wood processing include sawmills, shapers, wood shavings cutting machines, etc. According to Decision No. 5115/2014/QD-BNN-VNFOREST dated 11th December 2014, until 2020, wood chips have been produced with a maximum output of 1.5 million tons/year in the northeast provinces and a maximum output of 1.0 million tons/year in the north central region. Under this Decision, the general direction of wood processing is to reduce production of wood chip yield while improving yield of processing products having high competitive advantages such as furniture, outdoor furniture, fine art wooden articles.

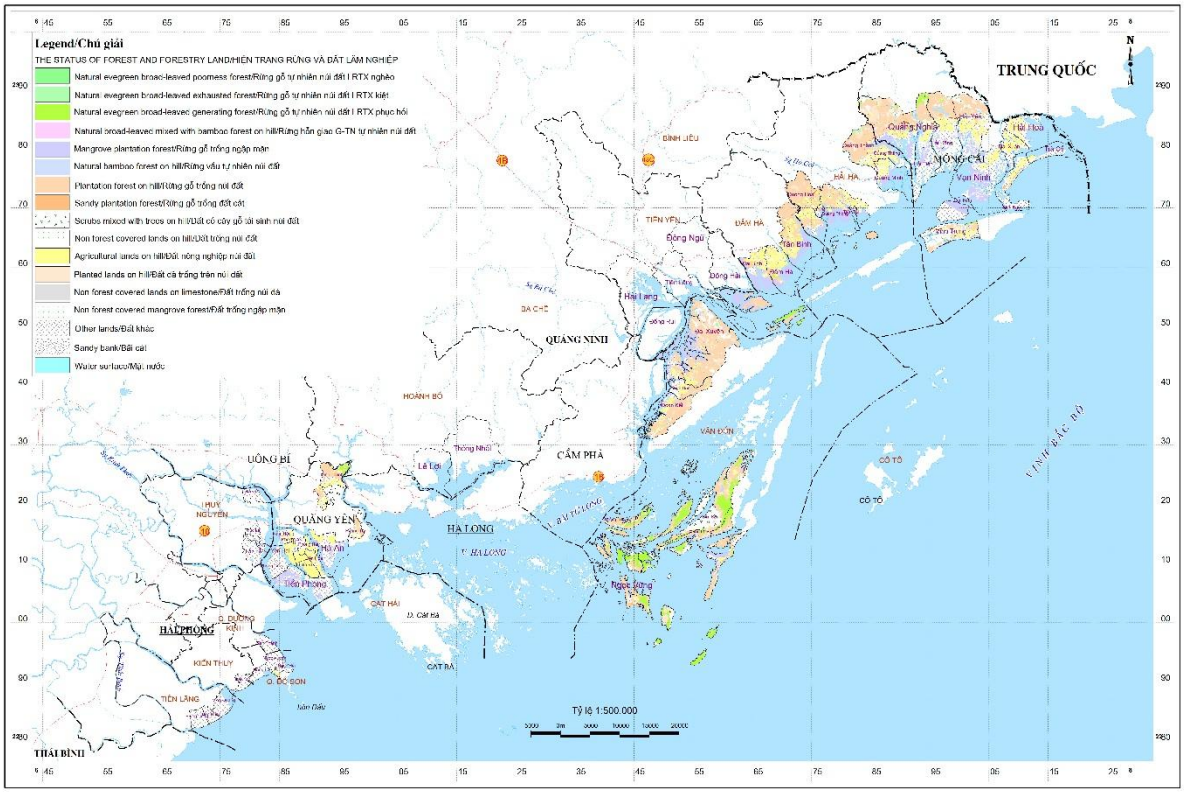
A1.4 Key Livelihoods in Coastal Project Area

25. The area of arable land (annual crops and perennial crops) is 450,415 ha or about 46% of agricultural land with an average of 554 m2/person (or about 74% of the national average which is 750m2/person). The average rice yield is low while the per capita food is 230 kg/ person/year or 56% compared to the national average (412kg/person/year). The lack of agricultural land in the coastal communes of the Project areas is a major obstacle for transformation of people's livelihood. The households with fishing equipment accounting for 90%, but only 29% of them have fishing boats. This means that majority of the households in the Project communes involved in inshore capture fisheries without fishing boats and they need assistance. In addition, the rate of ethnic minority groups such as Dao people (Quang Ninh) and Tay people (Thanh Hoa) involved in the capture fisheries is quite high because they have no production land and depend only inshore capture fisheries. The group of women-owned households has lower income than men-owned households in the same field. Thus, these groups would need Project support on their livelihood development. Sections below summarizes livelihood conditions in the Project areas.

- ***KV1:*** *Quang Ninh-Hai Phong* -Compared with other provinces, the area has high economic growth and GDP per capita; high population density; many works, factories, ports, tourism resorts; and high development potential. In general, livelihood of the communities in coastal communes is fisheries (capture fisheries and aquatic cultivation) accounting for 60% out of total income. Commercial services (small business) and employees (including labor export) occupy small scale. The survey result in Mong Cai city and Tien Yen district shown that, number of employee of fisheries sector dominant in comparison with other sectors. A small number of households has

offshore fisheries and aquatic cultivation activities. Major livelihood of poor households, who has not enough capital or manpower shortage is to capture fisheries under mangrove forest canopy. Number of employee involved in livestock and agricultural cultivation accounts for only a small proportion of about 10 - 12% out of total labor. The livelihoods in the targeted communes depends primarily on aquatic production. In Do Son city, there is about 51% of households in the targeted communes involved in capture fisheries and aquatic cultivation. Number of household hold fisheries processing and service accounted for 10%; and involved in crop and livestock production accounted for 11%. Poor households, who depends on fisheries under mangrove forest canopy is about 0.5%. In some areas local people voluntarily protect forests to protect fisheries resources.

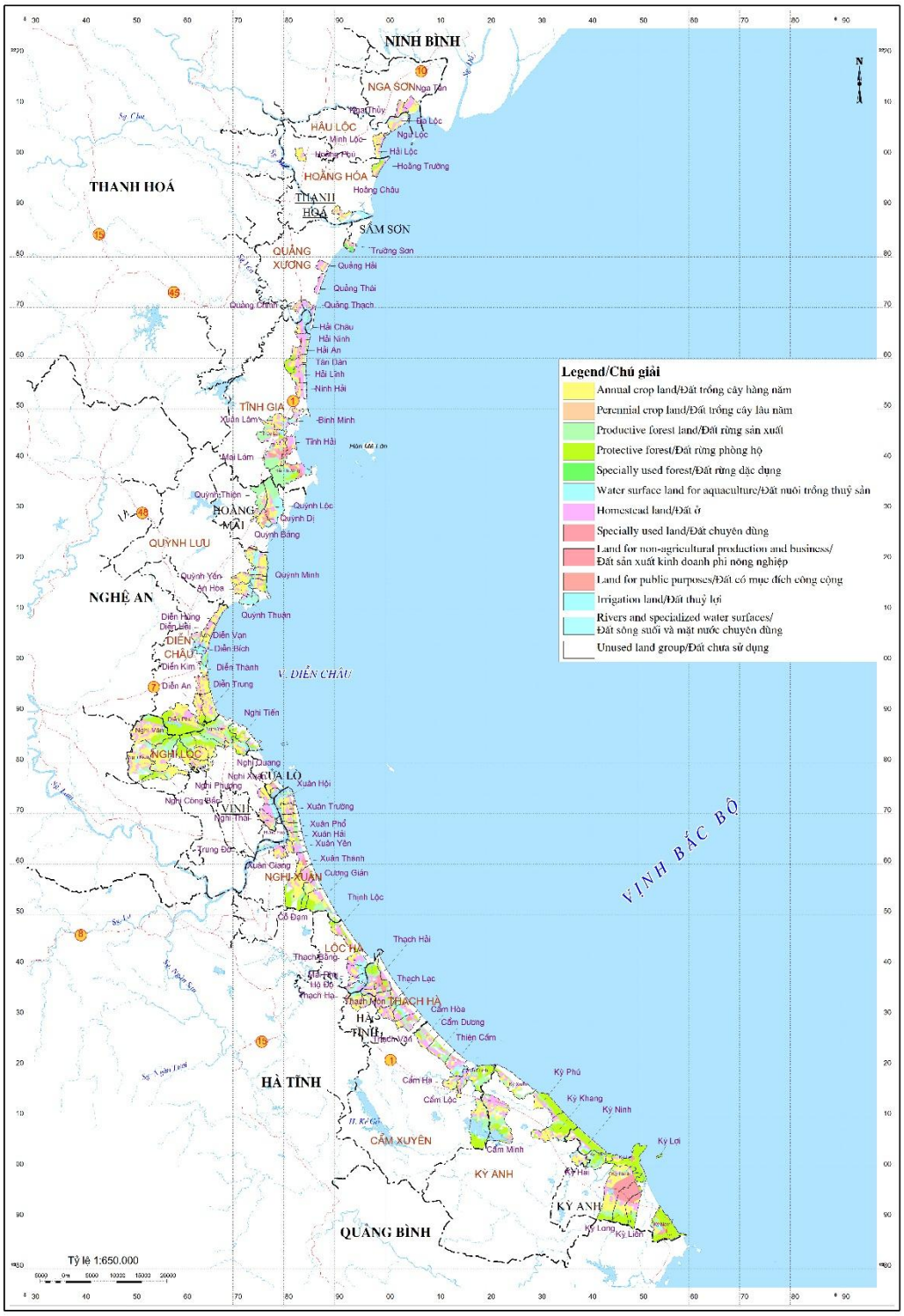
LAND USE STATUS MAP OF QUANG NINH - HAI PHONG REGION



- ***KV2.*** In Thanh Hoa, Nghe An and Ha Tinh provinces, there are lack of agricultural production land and surface water for aquaculture in the coastal communes. Only 6.6% of total households has agricultural land for cultivation, 14.8% of total households use surface water for aquaculture production while a number of households involved in capture fisheries. Aquaculture accounted for 67% out of the surveyed households, or about 52% of working-age population. Most of their fishing boats is small-scale power so the dominant fishing households involved in inshore capture fisheries. Number of female employees involved in fisheries services account for about 70%. For *Nghe An province*, the coastal household economy mainly depends on aquaculture and fishing however Cua Lo tourist town's revenue steadily increases annually.
- Aquaculture area reaches 21,243 ha and aquaculture production and exploitation in 2012 increased significantly due to strong development of fish breeding movement in the districts, relatively favorable weather for fishermen to go offshore fishing, and increasing time in fishing grounds. In general both farming and catching in 11 months was 107,379 tons, an increase of nearly 6% of the same period. *In Ha Tinh,* the coastal fishermen lives depend mainly on agricultural crops,

aquaculture and salt production. The area of the coastal aquaculture is nearly 8,000 ha comprising 5,080 ha of freshwater and 2,890 ha of brackish water. In 2013, productivity of about 16,700 tons of seafood was reached. Freshwater aquaculture production reached 18,405 tons at a production value of VND 1,539.18 billion, of which export value is 5.62 million. Salt production in the province has reduced sharply in recent years due to reduction in number of sunny days from 100 to 120 sunshine days every year to only 40-50 days of sunshine days and it does not bring adequate income to households. As saline intrusion increases more and more, agricultural plantations are partly reduced however the agriculture in coastal districts still meet the proposed productivity and yield of the sector.

LAND USE STATUS MAP OF THANH HOA - HA TINH REGION

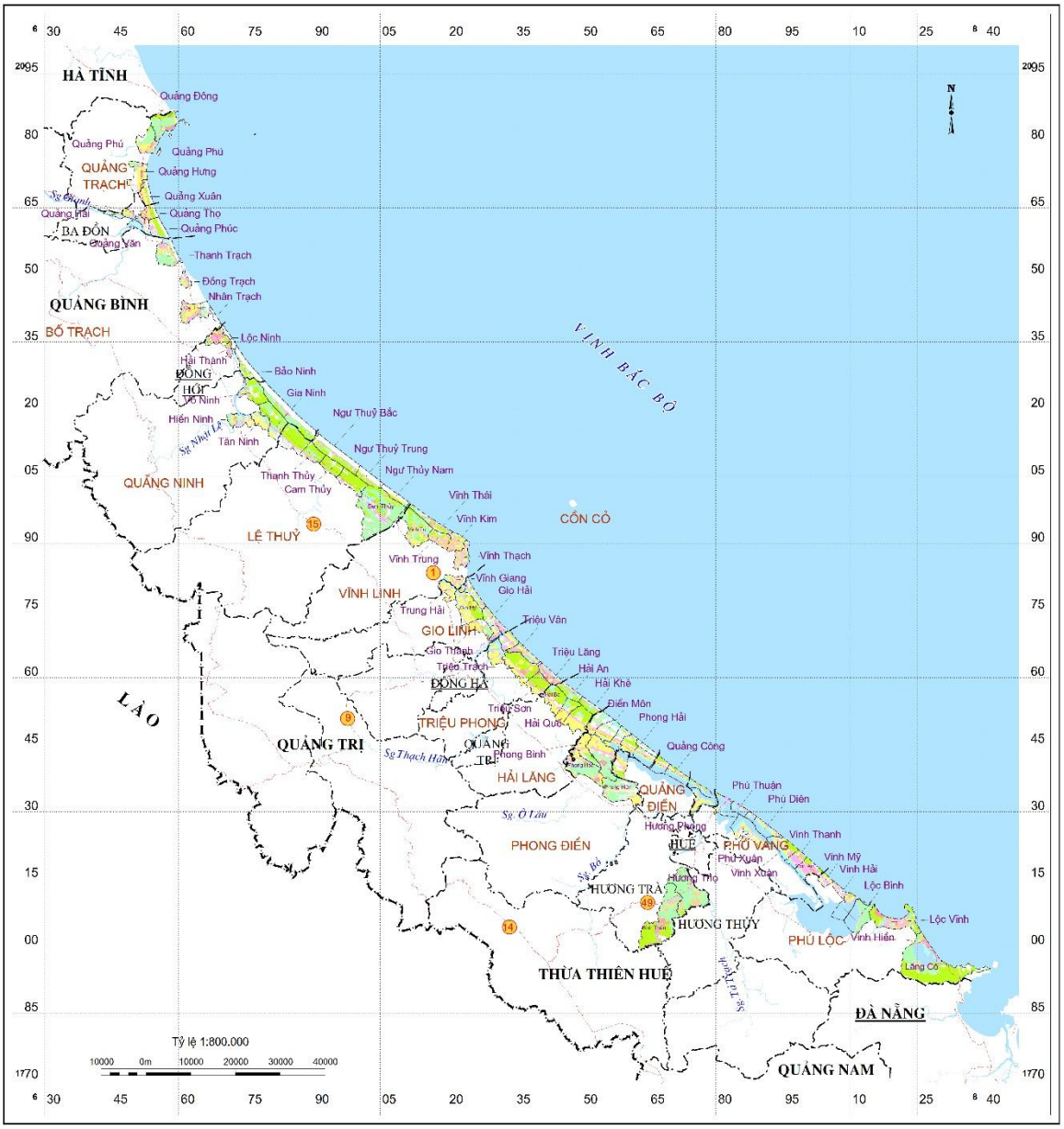


- ***KV3:*** In *Quang Binh, Quang Tri and Thua Thien Hue provinces*, coastal tourism is gradually being developed. Major livelihood of the people of the coastal communes is still mostly capture fisheries, accounting for 76%; in which the number of household has small-scale fishing boats. The fisheries households with no production land is about 80%, in which 6% of households has to

rent land for production, the rest is allotted. The survey results also showed that, the number of female employees participating in inshore capture fisheries in these provinces is relatively high (about 415% of total female workers). The rest involved in fisheries services and other jobs. *For Quang Binh,* the agriculture of the coastal communes, districts mostly focuses on aquaculture sector because of the quite large surface area of aquaculture potential with a total area of 15,000 ha. The salinity intrusion (8-30 ppt and pH 6.5-8) into an estuary is about 10-15km create a favorable environment for farming seafood for exports. Semi-diurnal tide in the coastal areas facilitates the water supply and drainage for pond mangement of shrimp, crab and other seafood species. *In Quang Tri,* the area of marine aquaculture increases over the years. The province has invested on development of processing frozen seafood for export and has been focusing on investment in upgrading the fisheries service areas to create favorable conditions for marine economic development such as Cua Viet Seafood Center, Cua Tung Seafood Center, fishing ports and fisheries logistic service in Con Co island.

- Tourism has great potential as the industry has made great contributions to the economy and the province is making an effort to create attractive tourism products. Marine aquaculture area increased over the years. The province invested and concentrated on processing frozen seafood exports, upgrading fisheries services aiming to create favorable conditions for economic development as the Cua Viet and Cua Tung aquatic centers, fishing ports and fisheries logistics area in Con Co island. *In Thua Thien Hue, s*eafood is a key economic sector with the thriving movement of aquaculture and fishing. Fishing transforms towards development of the offshore catching, focuses on the products with high export value. Thua Thien Hue has 126 km and more than 22,000 ha of surface water area of Tam Giang - Cau Hai lagoon, manay beaches, and 45 communes/towns with more than 350 thousand residents of whcih nearly 23 thousand people work in catching and/or aquaculture. There are a number of fishing boats in operations while many fishing prots are in operations or under construction.

LAND USE STATUS MAP OF QUANG BINH - THUA THIEN HUE REGION



II. A1.5 Coastal Forests Management in the Project Area

26. ***Mangrove/livelihoods:*** During the past 20 years, plantation/rehabilitaiton of mangroves by

GOV[20] and NGOs (with assistance from international agencies) have been made and thus the mangrove forest area in coastal area has increased significantly. Since 1991 until now, the area of over 20,000 ha has been planted along the northeastern and north delta estuaries and the north delta for dyke protection. In many locations, there is development of various production models for protection and utilization of natural aquatic resources under natural forest canopy as well as models on semi-intensive shrimp farming under the combined forestry-fishery method; an improved-extensive shrimp farming models with aquaculture in mangrove forests; and an extensive shrimp farming models are also investigated on the basis of breed sources and water sources from natural environment. The activities of beekeeping in mangrove forests, sea duck raising, or fish farming in cages are also conducted on the basis of natural water environment. Some localities used advantages of environment and natural landscapes in mangrove forests for tourism business. All production activities in mangrove forests are closely dependent on natural environment. Here the forest protection and development are important for livelihood development and protection of life of coastal people.

27. On coastal sandy soil, due to poor nutrient and dry soil, trees slowly grow with low productivity. Therefore, the protection forests in these areas are planted for wind breaking, flying sand breaking, protection of cultivation land, protection of life of local people, moisture retention, sandy soil improvement, thereby some agricultural crops such as sweet potatoes, beans can be planted. There are some typical models of protection forests on sandy soil: forest strip models specialized for coastal protection; forest strip models developing in the entire area; 200m to 300m wide forest strip models on the strongly-moving or semi-fixed sand dunes/sandbanks which are in the middle areas or sometimes slightly shift to the sea or move to the inland side. The planted trees are mostly the drought-resistant species of Casuarina and Acacia, pandanus, Agave americana and cactus. The planting models on flying sand dunes are located in Gia Ninh and Hai Ninh communes of Quang Ninh and Quang Binh (four forest belts). The protection forest strip models along villages – line 3 are not the pure Casuarina forests but are the intermixed forests of Casuarina and trees surrounding houses such as various bamboo species, verdant bamboo (punting pole bamboo), Hibicus tiliaceus, Litsea glusinosa, Eucalyptus, Acacia; or some fruit trees (jackfruit, banana, custard-apple, etc.); or some remaining natural timber trees (banyan-tree, Curtain fig, Weeping fig, Barringtonia acutangula, Calophyllum inophyllum, etc.).

28. *Management of coastal forest and mangrove in Project area*. During the recent years, the project provinces have assigned forest management boards, forestry companies, CPCs, organizations and households to implement the forest protection activities, including propaganda measures to raise the awareness and responsibilities of state management at all levels/sectors; organization for signing the forest protection commitments and elaboration of community forest protection regulations; propaganda, training, rehearsal of fire prevention and firefighting in villages to promptly mobilize the required forces as well as to prevent the forest fire risks. At present, of the total area of about 72,412 ha of the forestry land area to be implemented under FMCRP, 36,212 ha (50.0%) is managed by CPCs; 28,783 ha (40%) is managed by PFMB; 4,320 ha (6.0%) is managed by households and individuals; 904 ha (1.2%) is managed by forestry companies; 848 ha (1.2%) is managed by household groups or communities; 452 ha (0.6%) is managed by SUFMBs; 274 ha (0.4%) is managed by private enterprises; 218 ha (0.3%) is managed by armed forces; 401 ha (0.6%) is managed by other entities (youth volunteer teams or agricultural cooperatives). Therefore, CPCs and PFMB are the two main management bodies responsible for managing nearly 90% of forest land in the Project area.

[20] Since 1992, the Prime Minister issued Decision 327/CT on the policies of using bareland, bare hills, coastal mudflats, water surface and investment of forest rehabilitation. On 21st December 1994, the Government issued Decision 73/QD on the use of uncultivated land, coastal mudflats, mudflats along rivers and water surface, including investment of mangrove forest planting and Casuarina protection forest planting to protect dykes. In 1998, the Government implemented the 5-million hectare new planting program including mangrove forests.

29. *Protection of coastal forests by local peoples:* The forest protection activities are carried out through programs/projects using the state budget and in some area with actively involvement of local community. In Quang Ninh and Hai Phong, local people directly get benefits from aquatic resources under the mangrove forest canopy, so the their forest protection is well-implemented. The forest protection contracting to households/communities have also been conducted. However, the contracting contract is valid only for one year, the contracting activity will be interrupted in case of no budget in many years. For this reason, forests have not been well-protected. The forest allocation and contracting still brings formalism, are conducted slowly without more attention to capital source and technical level of households; the deforestation (including mangrove forests) for aquaculture has still occured; the cattle grazing and aquatic exploitation have still occured in the forests, affecting the forest growth and development. people - who get the contracted forests and forestland as at present – are by nature only "employees" and receive remuneration according to the contracting level.

A1.5 Coastal Forest Management Issues and Constraints

30. Although the Project area has high values of coastal forests, mangrove, and other coatsal resporces (water beachest, cultural, etc.) that could be important for maintaining living conditions of poor peoples it is facing high pressure and threats from many forms of development activities. During preparation of the Project, key issues and constraints identified can be summarized as follows:

- ***Technical difficulty due to natural conditions and sensitivities of coastal ecosystems:*** The Project area covers a long coastline with different local conditions and natural processes. Along the upper part (KV1 and between KV1 and KV2) the site conditions in some areas are relatively difficult (poor nutritions, sandy, etc.) to restore coastal forests, especially those sandy areas, deeply-tidal flooding land. Coastal wetlands in some places have thin mud layers, poor nutrition due to limited alluvium. Along KV2 and KV3, the coastline are long but narrow with high slope down to the coasts and short length of rivers leads to fragmentation and isolation of the project land, and involve variety of livelihoo developments. Moreover, the unstable extreme climate and weather conditions as well as the sensitivities of coastal ecosystem can exacerbate the difficulties and thus requires greater attention on risks/disastermanagement related to storms and flash floods which can adversely affect local people. Construction and/or rehabilitiation of dikes and/or culvert under dikes would be necessary. It is also importnat to ensure that all investment planning must take into account the need for protection and management of coatsal forest, mangroves as well as its potential imapcts on coastal commmunities. Any proposed convertion of land use from coastal forest and/or mangrove to other purposes should be considered carefully.
- *Local communities and strong competitions in land/water uses:* Dense population in the coastal areas also creates great pressure on resources, environment, and high demand for land use and forest resources. Demand for residential land, production land, and construction land is increasing more and more, threatening to sandy soil areas in which forests are planted. Demand for forest products and natural seafood in forests also affects negatively coastal ecosystems. Besides, a majority of people is still in poor or near poor condition and their lives depend on these coastal forest resources, especially mangrove forests. These demands have negative impacts on coastal forest protection and development and need to be addressed effectively. The project areas covers a long coastline and involve many agencies/entities and options for livelihood development in light of competing land and water uses for industries, ports, water transport, and tourism. At present, there are issues due to change in land use from coastal forest, mangroves, mudflats to other production activities with high profits such as aquaculture farming, marine transportation, construction, services with increasing demands. Some aquaculture farms/ponds developed even in only 100m from sea dykes, causing death of mangroves, violating dyke ordinance, adversely affecting the safety of sea dykes. Efforts should be made to address these conflicts.

- *Weak management and limited resources for coastal forest at local level:* In Vietnam, many policies and legal frameworks exist[21] and applied for investment and management of forests, most of them mainly focus on the mountain forests. While some specific policies *on coastal forest management[22] have been issued recently, there are still insufficient and inadequate and available human and funding resource remain limited* especially inappropriate silvicultural norms, particularly for sandy soil forests. Most of northern and north central provinces do not have coastal protection forest management boards. The management forces are insufficient while protection forests are fragmented, small, and mixed with residential areas. Forestry management force at commune level is seriously insufficient. Most local forest rangers do not have qualifications in advising commune governments in forest development. The forest extension system in coastal areas is severely inadequate.

31. *There are opportunities to* take advantage of the favorable locations and climate conditions in the Project area and promote sustainable use of coastal resources and prohibit development activities that adversely degrade valuable coastal reosurces. In Quang Ninh Province and Hai Phong City, the tropical climate create good conditions for the development of coastal plants and animals and provides opprtunity for restoring coastal forest quickly, especially for the fast growing light-demanding species. These activities could provide job opportunities to local communties and build their ownerships and sustainability of forest management. Improved knowledge *on values, and services of coastal forests and linakeage with sustainable livelihood and the market value chain could help improving* understanding and committment of local people. Striking the balance between environmental conservation and economic conditions would contribute to the coastal forest protection and development. There are may models and good examples that have been applied in the area and this needs firther promotion. Many people protect forests voluntarily, replant forests with their efforts, an typical example is in Quang Binh Province. A well-managed aquaculture development could help improving living conditions of local people as well as protection of coatsal resources and avoiding unecessary social conflicts. Protection of coastal forest, mangorve, and othe rcoastal resources could also bring a more sustainabel benefits to developers and local people in the Project area.

[21] The Law on Forest Protection and Development in 2004; the Law on Sea Resources and Environment and the islands in 2015; Decree No. 119/2016/ND-CP dated August 23, 2016 on sustainable coastal forest protection and development to respond to climate change; Decision No. 17/2015/QD-TTg dated June 9, 2015 on the regulations on protection forests; Decision No. 1205 / QD-BNN-VNFOREST of the MARD dated 08.04.2016 on Technical Guidance for some mangrove species including *Kandelia candel, Avicennia officinalis, Bruguiera gymnorrhiza,* and *Sonneratia caseolaris;* Circular No. 69/2011/TT-BNN October 21, 2011 on guideline on the implementation of some Investment Management Regulations about silvicultural work construction, issued together with the Decision No. 73/2010 / QĐ-TTg of the Prime Minister on November 16, 2010.

[22] Decision 57/201/QD-TTg. There are some policies on forest management and protection (including mangrove forests) have been issued and have brought the high efficiency such as land allocation, benefit policy, credit investment, etc. The international organizations have also implemented many projects to support the forest protection and development in the coastal areas. Some projects funded by NGOs such as Danish Red Cross, Japanese Red Cross, UK Children's Fund, ACTMANG have supported the partial planting area of mangrove forests. From 1991 until now, the area of over 20,000 ha has been planted along the Northeastern and North Delta estuaries and North Delta for dyke protection. Utilization of coastal forests.

Annex 2. Safeguard Screening, Checklist, and Forms

1. This annex provides technical guidance for safeguard screening to be conducted by the subproject or the activities owner to ensure that (a) the subprojects and activities to be carried out under the Project are eligible for World Bank (WB) financing, (b) the subprojects or activities are properly categorized (A, B, C) so that appropriate measures and/or safeguard documents are prepared, and (c) appropriate results are recorded in appropriate forms. The annex presents the screening forms to be signed by the PPMU director (Section A2.1), the impacts assessment and preparation of safeguard documents (Section A2.2), and preparation of EIA/EPP as required by GOV's EIA regulation (Section A2.3). The subproject owner or the activities owner and their consultants are responsible for implementation of these procedures.

2. Screening and impacts assessment of the subprojects will be conducted during implementation of the Project and the reports will be submitted to WB for review.

A2.1 Technical Criteria for Eligibility Screening and Categorization

(a) Eligibility screening

3. Purpose of the eligibility screening is to avoid adverse social and environmental impacts that cannot be adequately mitigated by project or that are prohibited by the national legislation, the WB's safeguard policy, or the international conventions. The principle of avoidance usually applies for subprojects that can create significant loss or damage to nationally important physical cultural resources, critical natural habitats, and critical natural forests. Such subprojects would not likely be eligible for financing under the project. However, the ineligibility criteria and screening should not be used to avoid doing beneficial subprojects, simply because one wants to avoid triggering a WB safeguard policy.

4. The following OP/BP 4.36 requirements apply for the FMCRP:

- The Bank does not finance projects that, in its opinion, would involve significant conversion[23] or degradation[24] of critical forest areas[25] or related critical natural habitats areas[26]. (para 5 of

[23] *Significant conversion* is the elimination or severe diminution of the integrity of a critical or other natural habitat caused by a major, long-term change in land or water use. Significant conversion may include, for example, land clearing; replacement of natural vegetation (e.g., by crops or tree plantations); permanent flooding (e.g., by a reservoir); drainage, dredging, filling, or channelization of wetlands; or surface mining. In both terrestrial and aquatic ecosystems, conversion of natural habitats can occur as the result of severe pollution. Conversion can result directly from the action of a project or through an indirect mechanism (e.g., through induced settlement along a road).

[24] *Degradation* is modification of a critical or other natural habitat that substantially reduces the habitat's ability to maintain viable populations of its native species.

[25] *Critical forest area* s are the forest areas that qualify as critical natural habitats under OP 4.04, *Natural Habitats*. Critical forest areas are the subset of natural forest lands that cover: i) existing protected areas and areas officially proposed by governments as protected areas (e.g., reserves that meet the criteria of The World Conservation Union (IUCN) classifications), areas initially recognized as protected by traditional local communities (e.g., sacred groves), and sites that maintain conditions vital for the viability of these protected areas (as determined by the environmental assessment process); or ii) sites identified on supplementary lists prepared by the Bank or an authoritative source determined by the Regional environment sector unit. Such sites may include areas recognized by traditional local communities (e.g., sacred groves); areas with known high suitability for biodiversity conservation; and sites that are critical for rare, vulnerable, migratory, or endangered species. Listings are based on systematic evaluations of such factors as species richness; the degree of endemism, rarity, and vulnerability of component species; representativeness; and integrity of ecosystem processes.

[26] *Critical natural habitats* are: i) existing protected areas and areas officially proposed by governments as protected areas (e.g., reserves that meet the criteria of the IUCN classifications), areas initially recognized as protected by traditional local communities (e.g., sacred groves), and sites that maintain conditions vital for the viability of these protected areas (as determined by the environ-mental assessment process3); or ii) sites identified on supplementary lists prepared by the Bank or an authoritative source determined by the Regional environment sector unit (RESU). Such sites may include areas recognized by traditional local communities (e.g., sacred groves); areas with known high suitability for biodiversity conservation; and sites that are critical for rare, vulnerable, migratory, or endangered species.4 Listings are based on systematic evaluations of such factors as species richness; the degree of endemism, rarity, and vulnerability of component species; representativeness; and integrity of ecosystem processes.

the policy).

- The Bank does not finance projects that contravene applicable international environmental agreements. (para 6 of the poicy).
- The Bank does not finance plantations that involve any conversion or degradation of critical natural habitats, including adjacent or downstream critical natural habitats. When the Bank finances plantations, it gives preference to siting such projects on unforested sites or lands already converted (excluding any lands that have been converted in anticipation of the project). In view of the potential for plantation projects to introduce invasive species and threaten biodiversity, such projects must be designed to prevent and mitigate these potential threats to natural habitats. (para 7 of the policy).

Table A2.1: List of ineligible subprojects/activities for WB financing under FMCRP

1	Eligible subproject/activities cannot seriously damage and/or adversely affect/ impact on the national parks, natural reserves, and/or cultural property, including but not limited to, the following sites: - Cat Ba Hai Phong (Protect forest ecosystem on island, population of white-headed langur and other threatened species) - Dong Son - Ky Thyong, Quang Ninh (Conservation for lowland forest resources, biodiversity, landscape, environment) - Ke Go Natural Protected Area, Ha Tinh (Protect forest ecosystem, biodiversity, threatened species, landscape, and environment) - Bach Ma National Park, Thua Thien Hue (Protect forest ecosystem, biodiversity, threatened species, landscape, and environment)
2	Subproject area and/or activities that are located in territorial dispute
3	Subprojects/activities that can cause serious damage and/or adverse impact on water transportation
4	Subprojects/activities that can cause serious damage and/or adverse impact on safety of existing embankments or safety of waterways transport
5	Subprojects/activities that require pesticides that falls in WHO classes IA, IB, or II and/or procurement of large amount of pesticides or toxic agro-chemicals.
6	Subprojects/activities that is classified by the WB safeguard specialist to be the EA category A as defined by the WB (OP/BP 4.01)
7	Subprojects/activities that require land acquisition and resettlement of more than 100 households as defined in the WB guidelines (OP/BP 4.10)

(b) Subproject categorization

4. To guide the preparation of environmental safeguard documents, the criteria below will be used for the subproject categorization:

- *Category A:* If the subproject/activities is likely to have significant adverse environmental impacts that are sensitive, diverse, or unprecedented. These impacts may affect an area broader than the sites or facilities subproject to physical works. If the answer is "YES" to any of the screening questions in Form B1 below, the subproject is likely to be considered a Category A (per OP/BP 4.01) and will not be eligible for financing by FMCRP, however consultation with WB safeguard specialist is necessary.
- *Category B:* If the subproject/activity is likely to create potential adverse environmental impacts on human populations or environmentally important areas - including wetlands,

forests, grasslands, and other natural habitats – but less adverse than those of Category A subprojects. These impacts are site-specific; few if any of them are irreversible; and in most cases mitigation measures can be designed more readily than for Category A subprojects. After the screening for Category A and Category C is applied and if the conclusion is reached that the subproject is not A and is not C, then the subproject should be categorized as B. For Category B subprject, an ESMP can be prepared including ECOP (see Annex 4) to satisfy the WB requirements (see guidelines in Annex 3).

- *Subproject requiring EIA/EPP:* If the subproject is required to prepare an EIA (per the Decree 18CP/2015 dated February 14, 2015), the PPMUs must ensure full compliance with the EIA regulation and an EIA report or an Environmental Protection Plan (EPP) (for small works) will be prepared according to GOV requirements.
- *Category C:* If the subproject/activity is likely to have minimal or no adverse environmental impacts and if all answers for the screening questions in Form B1 are "NO". Beyond screening (see Form B2), no further EA action is required. However, if the subproject and/or activities involve small works, the subproject/activity owner will apply the simplified ECOP (See Annex 4b to satisfy WB requirements and prepare EIA/EPP to satisfy GOV requirements.

(c) Social impact screening and preparation of safeguard documents

5. To satisfy the WB safeguard policies (OP/BP 4.10 and OP/BP4.12), the subproject will be screened for the nature and extent of potential negative impacts on local people related to land acquisition, resettlement, land donation, relocation of graves, and/or involvement with ethnic minority. If the impacts exist, RAPs and/or EMDPs will be prepared in line with the RPF and/or the EMPF which have been developed for the project. During preparation of RAPs and EMDPs, consultation with affected population, local authorities, local communities, and interested community organizations and/or NGOs will be required. Due attention should also be given to address the issues related to gender, ethnic minorities, and other disadvantaged groups.

Table A2.2. Requirements for safeguards documents for subprojects

No	**Category for environmental assessment**	***Requirements for safeguard documents***		
		World Bank		Government EIA regulation
		Environmental assessment document	Other safeguard documents (see Forms below)	
1	Category A	Not eligible	-	-
2	Category B	ESMP (see scope in Annex 3) including– ECOP (see Annex 4)	- RAP (if the answer to any of the questions 17-21 is "Yes"). - EMDP (if the answer to - questions 22 or 23 is "Yes").	EIA/EPP as required in Decree No.18/2015 /ND-CP Circular 27/2015/TT - BTNMT
3	Category C	ECOP if involves small civil works	Not required	

A2.2 Safeguard Screening Checklist and Forms

This subproject screening checklist is intended for the use of PPMUs so that they can determine the appropriate type of safeguards documentation that will be required by the World Bank for the subproject, in conformance with the ESMF for the Project.

The PPMU is encouraged to send this checklist to the World Bank to ensure that the World Bank agrees with the results of the screening prior to the hiring of consultants to prepare safeguard documents

6. The following safeguard screening checklist and forms will be used for all the subprojects to be financed under Components 2 and 3. The subproject/activities owner (PPMUs) will (a) apply Form A for presenting results of eligibility screening, (b) apply Forms B1 and B2 for categorization, (c) apply Form C for impact assessment, and (d) complete the signing in items (d) and (e). Technical guidelines for the preparation of ESMP are provided in *Annex 3* while those for RAP and EMDP are provided in the Resettlement Policy Framework (RPF) and the Ethnic Minority Policy Framework (EMPF), respectively.

7. For the activities to be carried out under Components 1 and 4, the activity owner will complete Forms A and B2 and the signing in items (d) and (e)

Project Name: Vietnam Forest Sector Modernization and Coastal Resilience Enhancement Project (FMCRP)

Subproject/activity Name: .....

Subproject/activity location: (e.g. region, district, etc.).....

Type of activity: .....

Subproject/activity owner and address: .....

Environmental Category of the main project: B

(a) Eligibility screening

Form A: Eligibility Screening Criteria

Screening Questions	Yes/No	Remarks, (If yes?)
1. Will the subproject/activity likely to damage or otherwise adversely affect/impact on the national parks, natural reserves, and/or cultural property.		If yes, the subproject is not eligible for funding
2. Will there be any territorial dispute?		If yes, the subproject is not eligible for funding
3. Will there any damage, negative impact on water transportation?		If yes, the subproject is not eligible for funding
4. Will there any damage, negative impact on dam safety, dike?		If yes, the subproject is not eligible for funding
5. Will the subprojects/activities require pesticides that falls in WHO classes IA, IB, or II and/or procurement of large amount of pesticides or toxic agro-chemicals?		If yes, the subproject is not eligible for funding

Result of eligibility screening:

☐ The subproject is not eligible for funding under project

☐ The subproject is eligible for funding under project (i.e. all answers are "No"); technical screening will be continued using Forms B1 and/or B2 and Form C.

☐ The activity is eligible for funding by the project (using Form B2)

(b) Technical Environmental Screening to identify which kind of EA will be applied to the subproject

Form B1: Category A Screening Criteria			
Screening Questions	**Yes**	**No**	**Remarks**
1. Does the subproject have the potential to cause significant adverse impacts to natural or critical natural habitats?			
Leads to loss or degradation of sensitive Natural Habitats defined as: land and water areas where (i) the ecosystems' bio-logical communities are formed largely by native plant and animal species, and (ii) human activity has not essentially modified the area's primary ecological functions. Important natural habitats may occur in tropical humid, forests; mangrove swamps, coastal marshes, and other wetlands; estuaries; sea grass beds; coral reefs; freshwater lakes and rivers; herb fields, grasslands; and tropical grasslands			Indicate location and type of natural habitat and the kind of impacts that could occur, e.g., loss of habitat and how much, loss of ecosystem services, effects on the quality of the habitat. State why these impacts are or are not significant. Note that the World Bank does not support projects involving the significant conversion of natural habitats unless there are no feasible alternatives for the project and its siting, and comprehensive analysis demonstrates that overall benefits from the project substantially outweigh the environmental costs
Leads to loss or degradation of Critical natural habitat, i.e., habitat that is legally protected, officially proposed for protection, or unprotected but of known high conservation value. Critical habitats include existing protected areas and areas officially proposed by governments as protected areas (e.g., reserves that meet the criteria of the World Conservation Union [IUCN] classifications, areas initially recognized as protected by traditional local communities (e.g., sacred groves), and sites that maintain conditions vital for the viability of these protected areas. Sites may include areas with known high suitability for bio-diversity conservation; and sites that are critical for rare, vulnerable, migratory, or endangered species.			Note that the World Bank cannot fund any projects that result in significant conversion or degradation of critical natural habitats. Indicate location and type of critical natural habitat and state why they are or are not significant
2. Does the subproject have the potential to cause significant adverse impacts to physical cultural resources?			
Leads to loss or degradation of physical cultural resources, defined as movable or immovable objects, sites, structures, groups of structures, and natural features and landscapes that have archaeological, paleontological, historical, architectural, religious, aesthetic, or other cultural significance. They may be located in urban or rural settings, above or below ground, or under water. State the level of protection (local, provincial, national or international).			Describe location and type of cultural resources and the kind of impacts that could occur. State the level of protection (local, provincial, national or international). Are any of these sites considered important to preserve in situ, meaning that the resources should not be removed from their current location? State why impacts are or are not significant.
Potentially results in a contravention of national legislation, or national obligations under relevant international environmental treaties and agreements, including the UNESCO World Heritage Convention or affect sites with known and important tourism or scientific interest.			Describe any impacts that might contravene national or international legislation concerning cultural resources. If considered not significant, explain why.
3. Does the subproject have the potential to cause significant adverse impacts on the lands and related natural			

resources used by ethnic minorities?			
Potentially result in impacts on lands or territories that are traditionally owned, or customarily used or occupied, and where access to natural resources is vital to the sustainability of cultures and livelihoods of minority peoples. Potentially impact the cultural and spiritual values attributed to such lands and resources or impact natural resources management and the long-term sustainability of the affected resources.			Describe the type and extent of impacts and the significance of alterations to the resources of the affected minorities. Note that an Ethnic Minority Development Plan will also be required in accordance with World Bank OP 4.10.
4. Does the subproject have the potential to cause significant adverse effects to populations subject to physical displacement?			
Leads to physical displacement of populations dependent upon lands or use of specific use of resources that would be difficult to replace or restore? Otherwise lead to difficult issues in the ability of the subproject to restore livelihoods?			Indicate the numbers of households affected and the resources that will be difficult to replace in order to achieve livelihood restoration. Note that a Resettlement Action Plan will need to be prepared in accordance with World Bank OP 4.12.
5. Does the subproject entail the procurement or use of pesticide?			
Do the formulations of the products fall in World Health Organization classes IA and IB, or are there formulations of products in Class II and/or procurement of large amount of pesticides or toxic agro-chemicals ?,			If yes, this may not always mean that a Category B EIA is required, but special care must be taken. The World Bank will not finance such products, if (a) the country lacks restrictions on their distribution and use; or (b) they are likely to be used by, or be accessible to, lay personnel, farmers, or others without training, equipment, and facilities to handle, store, and apply these products properly.
6. Does the subproject entail the large construction?			
The subprojects and activities specified in Annexes I, II, III, IV of Decree/18-CP/2015 of the Government of Vietnam?			Check the scale and impact levels by type and size of the project, project location, the sensitivity of the social and environment issue, and the potential impacts. Note: EIA is required by the Government of Vietnam and compliance OP/BP 4.01 WB
7. Does the subproject have the potential to cause irreversible impacts or impacts that are not easily mitigated?			
Leads to loss of aquifer recharge areas, affects the quality of water storage and catchments responsible for potable water supply to major population centers.			Name the water bodies affected and describe magnitude of impacts.
Leads to any impacts such that the duration of the impacts is relatively permanent, affects an extensive geographic area or impacts have a high intensity.			Describe any impacts considered to be permanent, affecting a large geographic area (define) and high intensity impacts.
Cause social disturbance			Assess the scope, trends, factors causing disturbance to destabilize the local society and increase the risk of problems the Assembly: mechanical population growth, social evils.
8. Does the subproject have the potential to result in a broad diversity of significant adverse impacts?			
Multiple sites in different locations affected each of which could cause significant losses of habitat, resources, land or deterioration of the quality of resources.			Identify and describe all affected locations.

Potential, significant adverse impacts likely to extend beyond the sites or facilities for the physical works.			Identify and describe the types of impacts extending beyond the sites or facilities of the physical works.
Transboundary impacts (other than minor alterations to an ongoing waterway activity).			Describe the magnitude of the transboundary impacts.
Need for new access roads, tunnels, canals, power transmission corridors, pipelines, or borrow and disposal areas in currently undeveloped areas.			Describe all activities that are new that are required for the main activity to function.
Interruption of migratory patterns of wildlife, animal herds or pastoralists, nomads or seminomads.			Describe how migrations of people and animals are affected.
9. Is the subproject unprecedented?			
Unprecedented at the national level?			Describe why and what aspects are unprecedented.
Unprecedented at the provincial level?			Describe why and what aspects are unprecedented.
10. Is the project highly contentious and likely to attract the attention of NGOs or civil society nationally or internationally?			
Considered risky or likely to have highly controversial aspects.			Describe perceived risks and controversial aspects
Likely to lead to protests or people wanting to demonstrate or prevent its construction.			Describe the reasons that subproject is highly unwelcome.
Comments and/or additional description (provide comments and/or additional description for the subprojects)			

If all the answers from 1-10 in Form B1 is "No"; use the criteria in Form B2 Category C screening criteria

Form B2: Category C Screening Criteria			
Screening Questions	**Yes**	**No**	**Remarks**
1. Subproject activities are limited to training, technical assistance and capacity building			Describe activities
2. Training and capacity building do not require use of chemical, biological agencies, pesticides			Support this statement
3. There is no infrastructure to be demolished or built			Support this statement
4. There are no interventions that would affect land, water, air, flora, fauna, or human			Support this statement
5. If scientific research is being performed, the research is of such a nature that no hazardous or toxic wastes are created and the research does not involve recombinant DNA or other research that would create dangerous agents should they be released from contained, laboratory conditions			If yes, discuss with the World Bank environmental specialists.

Result of EA screening:

☐ Category A–full ESIA (If the answer is "YES" to any of the screening questions in Form B1)

☐ Category C - no further EA action is required (If all answers are "NO" to the screening questions in Form B1)

☐ Category B – ESMP (After the screening for Category A and Category C is applied and if the conclusion is reached that the subproject is not A and is not C, then the subproject should be categorized as B)

(c) Identification of Issues and Preparation of Safeguard Documents

Form C: Potential Environmental and Social Impacts to be Addressed							
No	**Does the subproject entail these environmental impacts?**	**N**	**L**	**M**	**H**	**UN**	**Remarks**
1	Encroachment on historical/cultural areas						Describe and briefly assess impact's level
2	Encroachment on an ecosystem (e.g. natural habitat sensitive or protected area, national park, nature reserve etc....)						Describe and briefly assess impact's level
3	Habitat fragmentation						Describe areas
4	Disfiguration of landscape and increased waste generation						Describe and briefly assess impact's level
5	Change of surface water quality or water flows (e.g. Increase water Indicate how and when this occurs. 77 turbidity due to run - off, waste water from camp sites and erosion, and construction waste) or long -term.						Describe and briefly assess polluted's level
6	Increased dust level or add pollutants to the air during construction						Indicate how and when this occurs
7	Increased noise and/or vibration						clearly show the causes and places
8	Resettlement of households? If yes, how many households?						
9	Use of resettlement site that is environmentally and/or culturally sensitive						Briefly describes the potential impacts
10	Risk of disease dissemination from construction workers to the local peoples (and vice versa)?						Note estimated number of workers to be hired for project construction in the commune/district and what kind of diseases they might introduce or acquire
11	Potential for conflict between construction workers and local peoples (and vice versa)?						
12	Use of explosive and hazardous chemicals						
13	Use of sites where, in the past, there were accidents incurred due to landmines or explosive						Indicate risk areas
14	Construction that could cause disturbance to the transportation, traffic routes, or waterway transport?						
15	Construction that could cause any damage to the existing local roads, bridges or other rural infrastructures?						
16	Soil excavation during subproject's construction so as to cause soil erosion						
17	Need to open new, temporary or permanent access road?						Estimate number f and length of temporary or permeant access roads and their locations
18	Separation or fragmentation of habitats of flora and fauna?						Describes how
19	Long -term impacts on air quality. Accident risks for workers and community during construction						Specifies the space, time and the cumulative impact

Form C: Potential Environmental and Social Impacts to be Addressed							
No	**Does the subproject entail these environmental impacts?**	**N**	**L**	**M**	**H**	**UN**	**Remarks**
	phase						
20	Accident risks for workers and community during construction phase						Specifies the risk activities
21	Use of hazardous or toxic materials and generation of hazardous wastes						
22	Risks to safety and human health						Specifies the risk activities
Does the subproject entail land acquisition or restriction of access to resources?							
23	Acquisition (temporarily or permanently) of land (public or private) for its development						List land areas for permanent and temporary land acquisition, type of soils, duration and purpose of acquisition
24	Use land that is currently occupied or regularly used for productive purposes (e.g., gardening, farming, pasture, fishing locations, forests)						
25	Displacement of individuals, families or businesses						
26	Temporary or permanent loss of crops, fruit trees or household infrastructure						
27	Involuntary restriction of access by people to legally designated parks and protected areas						
If the answer to any of the questions 23-27 is "Yes" for "L", "M", or "H", please consult the RPF; preparation of a Resettlement Action Plan (RAP) is likely required.							
Are ethnic minority peoples present in the subproject areas?							
28	Ethnic minority groups are living within the boundaries of, or nearby, the subproject.						
29	Members of these ethnic minority groups in the area potentially could benefit or be harmed from the project.						
If the answer to questions 28 -29 is "Yes" for "L", "M", or "H", please consult the EMDF; and preparation of an Ethnic Minority Development Plan (EMDP) is likely required							
Does the subproject entail forest plantation/protection and/or livelihood development in coastal area?							
30	Subproject will involve forest plantation/protection in coastal area including building, upgrading, and/or rehabilitation of small infrastructure						See ESMF/ESMP Annexes 3, 4, 5, 6
31	Subproject will involve forest plantation/protection in coastal area including building, upgrading, and/or rehabilitation of small infrastructure						See ESMF/ESMP Annexes 3, 4, 5, 6
If the answer to questions 30-31 is "Yes" for "L", "M", or "H", preparation of forest management plan may be required (see Annex 3).							
Does the subproject entail procurement or use of pesticides?							
32	Subproject/activity that require pesticides that falls in WHO classes 1A, IB, or II or procurement of large amount of pesticides and/or other toxic agro-chemicals						See list of ineligible items
33	Subproject will involve the use of agrochemical (pesticides, fertilizers, and toxic chemicals in aquaculture or shrimp farming)						Apply Annex 5
If the answer to questions 33 is "Yes" for "L", "M", or "H", preparation of pest management plan or adoption of good IPM practices may be required (see Annex 5)							
Note: N =No impact; L =Low (very small- scale, localized and temporary impacts; M= Medium impacts (Medium-scale, reversible impacts can be solved by applying prevention and management measures; H = High Impact (large scale, reversible, compensated) and N/A= Not know							
(d) Social safeguard documents to be prepared ☐ Resettlement Action Plan (If the answer to any of the questions 17-21 is "Yes") ☐ Ethnic Minority Development Plan (If the answer to questions 22 - 23 is "Yes")							
(e). Result of subproject screening							

Form C: Potential Environmental and Social Impacts to be Addressed							
No	**Does the subproject entail these environmental impacts?**	**N**	**L**	**M**	**H**	**UN**	**Remarks**
1. Eligibility ☐ The subproject is eligible for funding under FMCRP project ☐ The subproject is not eligible for funding under FMCRP project 2. Safeguard documents ☐ ESMP ☐ Resettlement Action Plan ☐ Ethnic Minority Development Plan							
CONFIRMATION							
PPMU		**CPMU**			**WB**		

A2.3 EIA/EPP Preparation According to Vietnam's EIA Regulations

8. Currently, the proposed activities/subprojects in FMCRP does not have to prepare EIA document to comply with GOV's EIA regulations (8/2015/NĐ-CP regulation published on 14th February, 2015). However, during the implementation of FMCRP, all the subprojects and/or activities will also be screened for safeguard actions related to GOV's EIA regulations and/or specific request.

9. It is expected that repair, renovation, and upgrading of coastal infrastructure activities and silviculture activities will not be carried out during the first 3 years of the project. However, the subproject owners may have to prepare an EIA or EPP reports due to governmental regulations, and submit them to the responsible agencies to ensure that activities/subprojects are accepted and approved by GOV. Approval of the EIA or EPP will have to be submitted to WB.

Annex 3. Guidelines for Development of Environmental Management Plan

1. ESMP is an important document for subproject classified as EA category B according to OP/BP 4.01. Scope of the ESMP will be based on results and technical screening of safeguard issues given in Annex 2. After the safeguard screening and discussion among subproject owners, an agreement of necessary safeguard documents of subproject will be reached taken into consideration the guidelines provided in this annex. Subproject/activity owner (PPMU), with help from consultants, is responsible for preparation and submission of the ESMP report. Consultation with CPMU and the WB are highly recommended.

2. This annex provides technical guidance for preparation of an ESMP for the subproject and/or activities to be carried out under Components 2 and 3 of the FMCRP. It is noted that the Project is establishing technical criteria and/or guidelines to be included in the Project Operational Manual (POM) for (a) selection of subproject locations, type of species, and technology and best operation/management practices to be used and (b) eligible types of investment activities to be supported. When there are potential conflicts of specific requirements among the guidelines during the preparation of an ESMP for a subproject, discussion with WB safeguard specialists is recommended.

3. *Annex 3(a)* provides technical guidance on the scope and content of the ESMP report, while *Annex 3(b)* describes guidelines for addressing safeguard issues related to the subprojects/activities to be implemented under Components 2 including guidance for mitigation of community forest management (CFM) activities. *Annex 3(c)* provides guidance for addressing safeguard issues of Component 3. *Annex 3(e)* provides guidance on social issues that may be caused by the Project in addition to RAP and EMDP. Additional guidelines for ECOP and monitoring of ESMP implementation are provided respectively in *Annexes 4 and 5.*

Annex 3(a) Guidance on Scope and Content of ESMP Report [27]

1. ***General principles:*** An ESMP aims to provide information on objective, description, environment and social background, potential impacts (positive and negative), proposed measures to mitigate potential negative impacts including an implementation arrangement, budget, and monitoring and evaluation (M&E) of a subproject (see content below). During preparation of an ESMP for a subproject to be financed by FMCRP, the following basic principles will be considered:

- *Subproject area and area of influence*[28]. The ESMF outlines the project target area in general terms. The ESMP will provide clear and specific information on the subproject areas and the area of influence including a brief description of the main biophysical conditions, such as topography, hydrology, land use, forest cover, natural habitats, and important physical cultural resources. Population of ethnic minority and community livelihood should also be briefly highlighted. Where available, include maps to show the project target area.
- *Chance finds procedures:* Significant impacts on PCR is not expected. However, as the civil works may include excavation activities, which may result in chance finds, the WB policy requires inclusion of the *"chance finds procedure"* in all contract related to excavation so that appropriate actions will be carried out when artifacts and/or possible PCR is found. This procedure has been incorporated into the ECOP (Annex 4).

[27] Also see outline in Annex C of the Bank's Operational Policy on Environmental Assessment (OP 4.01).

[28] OP 4.01, Annex A – Definitions: *Project area of influence*: The area likely to be affected by the project, including all its ancillary aspects, such as power transmission corridors, pipelines, canals, tunnels, relocation and access roads, borrow and disposal areas, and construction camps, as well as unplanned developments induced by the project (e.g., spontaneous settlement, logging, or shifting agriculture along access roads). The area of influence may include, for example, (a) the watershed within which the project is located; (b) any affected estuary and coastal zone; (c) off-site areas required for resettlement or compensatory tracts; (d) the airshed (e.g., where airborne pollution such as smoke or dust may enter or leave the area of influence; (e) migratory routes of humans, wildlife, or fish, particularly where they relate to public health, economic activities, or environmental conservation; and (f) areas used for livelihood activities (hunting, fishing, grazing, gathering, agriculture, etc.) or religious or ceremonial purposes of a customary nature.

- *World Bank Group Environmental, Health, and Safety Guidelines*. There are also recent requirement for the Environmental, Health, and Safety Guidelines (known as the "EHS Guidelines"). The EHS Guidelines are technical reference documents with general and industry-specific examples of Good International Industry Practice. It contains the performance levels and measures that are normally acceptable to the World Bank Group and are generally considered to be achievable in new facilities at reasonable costs by existing technology. The environmental assessment process may recommend alternative (higher or lower) levels or measures, which, if acceptable to the World Bank, become project- or site-specific requirements. The EHS Guidelines will also apply to the FMCRP and this has been incorporated into the ECOP (see Annex 4(a)).
- *Public consultation:* The Bank's safeguard policies require the subproject's owner to conduct public consultation during the preparation of an ESMP and this should be included in the TOR for the ESMP preparation. For FMCRP, at least one consultation will be carried out in a form convenient to the local people (e.g. surveys, meetings, workshops, leaflets, signboard, etc.) and information on the subproject activities, key findings on potential impacts, and proposed mitigation measures must be provided in local language understandable for local authorities and majority of the affected peoples. Records of feedback from public consultation should be attached to the final draft ESMP. It is noted that in addition to the public consultation of the ESMP, a number of specialized consultation with project affected people (PAPs) and/or ethnic minority will also be carried out as needed.
- *Disclosure of ESMP:* According to the WB's policy on access to information, all draft safeguard instruments, including the ESMP, are disclosed locally in an accessible place and in a form and language understandable to key stakeholders and in English at the WB's external Internet website before the appraisal mission. For FMCRP, the ESMF, RPF, and EMPF will be disclosed at the WB's externatl Internet website before appraisal. During implementation all ESMPs, RAPs, and/or EMDPs and other safeguard instruments will be disclosed at the subproject sites after WB clearance.

2. ***Basic principles for impact assessment.*** As impacts and mitigation measures of a subproject will depend on locations and type of subproject activities, the following guidelines will be used to assess the nature of potential impacts (level/magnitude of impacts, duration of impacts, and spatial impacts):

- ***Magnitude of impacts*** *–is defined as follows:*
  - *Large Impact (L) means* the followings: Significant change on a large area over a long period of time (more than 2 years), and/or significant impact on important ecosystem, nature and/or feature of landscape, and environmental quality; The impact goes beyond regulatory standards or is widespread for a long time; It may impact on human health; and/or Causing financial lost to farmers or the public.
  - *Moderate Impact (M)* means the followings: Significant changes but not more than 2 years and with moderate impacts on local area, ecosystem, nature, and/or landscape most of them can be recovered; It may impact to human health and/or other users.
  - *Small Impact (S)* means the followings: Small change and occurs in less than 2 years, or insignificant changes but occurs in less than 6 months; The changes occurred only in local area and be within permissible standards and can fully control its impact; It may affect the operation, but does not interfere the user or to the public; negligible impacts to human health or quality of live.
  - *No-impact (N)* means the followings: Insignificant, unnoticeable changes or no change that cannot be assessed; Change that cannot be recognized or cannot be measured based on normal

operations; No change.

- ***Impact duration –is defined as follows:***
  - *Long duration (Lt)* means impact that is unlimited time, or not less than 10 year durations;
  - *Moderate duration (Mt)* means impact can last for 1 - 10 year duration, thus this impact can be reversed; and
  - *Short duration (St)* means impact occurs over a time of less than 1 year.
- ***Spatial influence*** --is defined as follows:
  - *Regional (R)* means having possible impact to the whole North - East, the Red River Delta and whole Central coastal area, or a remarkable area.
  - *Sub-regional (Sr)* means possible impact on the nearby areas (upstream, downstream, river mouth or peninsula) larger than the subproject area.
  - *Local (Lo)* means possible impact does not expand beyond the area that is directly affected by subproject activities.

3. Applying the above guidelines, the overall negative impacts of the proposed Component 2 and 3 of FMRCP are assessed in *Table A3.1.*

Table A3.1 Overall negative impacts of Component 2 and 3

Activity	Social impacts (magnitude)	Environmental Impacts (magnitude/space/time)	Overall Impact	Safeguard Actions
Component 2.1 Coastal forest plantation and protection				
During planting	- Possible conflict on land use and land ownership	- Possible use of chemical during seeding preparation - Afforestation activities may transform certain non-forested ecosystems while reforestation in coastal areas may displace production, induce deforestation in other ecosystems or have transboundary implications.	Small	Apply measures provided in Annex 3(b) in ESMP
During operation (tending and maintenance of plants)	- Increase income of local peoples	Increasing coastal forest and its biodiversity (H/Sr/Lt)		positive
		Possible outbreak of plant disease	Moderate	Apply measures provided in Annex 3(b) in ESMP
Component 2.2				
Upgrade, repair, renovation of small-scale coastal infrastructures	- Possible minor land acquisition and/or relocation of graves (S); - Health and safety impacts - Possible involve ethnic minority (M); - Possible create other social impacts (S)	- Changing landscape (S/Lo/Mt)	Small	Apply measures provided in Annex 3(b) in ESMP
		- Losing land cover (S/Lo/Mt)	Small	
		- More dust, noise, vibration, waste, and social issues (S/Lo/St)	Small	
		- Changing local transportation during construction (S/Lo/St) - Follow health and safety regulation	Small	
		- Increasing solid wastes in water cause by surface flow (S/Lo/St)	Small	
		- For structure/ plantation that obstruct the water and sediment change in water and sediment transport along the coast (S/Sr/Lt)	Small	
Component 3.1		-		
Applying livelihood	- Land acquisition, relocation of graves	- Increase local people income (M/Lo/Mt)	Moderate	Apply measures provided in
		- Increase risky because of no connection to	Moderate	

Activity	Social impacts (magnitude)	Environmental Impacts (magnitude/space/time)	Overall Impact	Safeguard Actions
models (Components 2 and 3)	for the livelihood model (S); - Possible involve ethnic minority (M); - Possible to create other social impacts (M)	value chain (M/Sr/Mt)		Annex 3(b) in ESMP
Component 3.2				
Upgrade, repair, build and renovation of small-scale productive infrastructures	Similar to above		Moderate	

4. ***Basic principles for mitigation measures:*** The ESMP for FMCRP subproject will include the mitigation measures under the responsibility of the subproject owner, contractors, and/or other agencies during subproject pre-construction, construction, and operation/ completion stages. When civil works is involved the contractor will be required to mitigate both the generic impacts that could be mitigated through the application of ECOP as well as the site specific impacts and environmental monitoring during site clearance and construction phases to be prepared as part of the ESMP. When plantation of coastal forest and/or mangrove is involved, adoption of the basic principles of the Forest Stewardship Council (FSC) will be confirmed while active and sustainable participation of local authorities and communities will be necessary. If the use of pesticides or other toxic chemicals is involved, application of pest management regulations and adoption of an IPM and/or good practices will be required. Depending on type of activities and locations, the ESMP will also consider possible induced impacts on coastal water quality, ecosystem, and shoreline as well as on other social issues in additional to RAP and EMDP. More details are discussed in *Annexes 3(b), 3(c), and 3(d).*

5. ***Other key principles***: The ESMP is the key document to be used during implementation of the subproject to mitigate potential negative impacts and ensure compliance with GOV's EIA regulation and WB safeguard policies. During the preparation of an ESMP, it is important to ensure the followings:

- ***Detailed design and preparation of bidding and contract documents:*** To minimize the impact during land clearance, construction, and operation, it is important for the ESMP to clearly define the activities to be included in the detailed design as well as to finalize the ECOP to be included in the bidding and contract documents and ensuring that the activities are part of the subproject cost and the contractor is aware of this obligation (see ECOP in *Annex 4*).
- ***Before starting construction***, the subproject owners and/or supervisor certify that (a) all compensation for land acquisition and affected facilities, the relocation of households and/or recovery of land/land donation has been completed and (b) subproject environmental impact assessment and/or the specific mitigation measures approved by GOV.
- ***During construction***, the subproject owners and/or supervisor closely monitor the implementation of the mitigation measures during construction and include the contractor performance especially on safety aspects in the subproject progress report.
- ***After completing the construction,*** the subproject owners and/or supervisor confirms compliance with the ESMP including ensuring that any damage incurred by the contractor has been properly addressed. If necessary, it should be ordered to pay compensation / rehabilitation of the construction sector as stipulated in the contract. The contractor will recruit a team of local experts

(environmental contractors) to assist in the planning and implementation of environmental safeguards, including preparation of contractor's environmental management plan for ensuring compliance with ECOP and site-specific requirements especially on effective consultation with government and local communities.

6. ***Content of ESMP:*** The ESMP content and scope should be as follows:

- *Abbreviations and Acronyms*
- *Executive Summary:* Concisely discuss significant findings, recommended actions
- *Part I Introduction:* Briefly explain connection between the Project and subproject objective/scope of the ESMP/ESMF report especially results of the safeguard screening and listing of subproject environmental studies such as EIA/EPP, approval documentation. The ESMP objective should be subproject specific, not broad policy statements.
- *Part II Subproject description:* Describes the subproject objective, components, and description of activities in sufficient detail to define the nature and scope of the subproject. These should include, but not limited to, (a) the subproject components and scope of activities especially those to be carried out during *construction and/or operation processes including* location and transportation of construction materials, working or operating hours, the plant and equipment to be used, the location and site facilities and worker camps, bill of quantities for civil works, and *timing and scheduling*, and off-site facilities to be constructed. If the subproject is to be completed in stages then separate dates for each stage should be provided. *Subproject location* should be described with good maps (both in English and Vietnamese). Need for land acquisition and/or resettlement should also mentioned.
- *Part III Policy, legal and administrative framework:* Provide brief description of GoV regulations related to EIA and technical regulations and standards applied to the subproject as well as the list of World Bank safeguard policies triggered by the subproject.
- *Part IV: Environmental and social impacts of the subproject*: Briefly provide information on the subproject area and results of an impacts assessment (potential positive and negative), in quantitative terms to the extent possible. Attention should be given to highlight potential health and safety impacts of plantation and other productive activities. Detailed information on relevant physical, biological, socio-economic and socio-cultural, cultural resources sites (historical, religious, or architectural), environmentally sensitive areas; including any changes anticipated before the subproject commences, should be provided in an annex. Also takes into account current and proposed development activities within the subproject area but not directly connected to the subproject. Data should be relevant to decisions about project location, design, operation, or mitigation measures. It should identify/estimate the extent and quality of available data, key data gaps, and uncertainties associated with predictions, and specifies topics that do not require further attention. The assessment will also include those for the ancillary and associated facilities of the subproject activities. The impacts should be described for pre-construction, construction, and operation phases including any residual negative impacts that cannot be mitigated. If possible, this section should also explore opportunities for enhancement of positive impacts of the subproject. Specific guidancse are provided in Annex 3(b), 3(c), and 3(d).
- *Part V: Proposed mitigation measures:* Clearly explain measures to mitigate the negative impacts. Using a matrix format could help understanding connection between the impacts and mitigation better (See *Table A3.1* below for a sample mitigation measures matrix.). Cross-referencing to the EIA/EPP reports or other documentation is recommended, so that additional detail can readily be referenced. Mitigation measures should be provided for all components and for all stages (pre-construction, construction, and operations/completion stages). To mitigate potential impacts

during site clearance and construction, while commonly-known social and environmental impacts and risks due to construction activities can be addressed through ECOP, site-specific mitigation measures should also be proposed to address subproject site-specific impacts which may occur due to site-specific conditions and type of investments. Some measures can be proposed for incorporation into engineering design to address potential impacts/risks and/or bring about added values of the works provided (e.g. road/access path improvement combined with canal lining). Mitigation measures should also include a communication program and grievance redress mechanism to address social impacts. Depending on impacts of a subproject, Physical Cultural Resources (OP/BP 4.11) or Pest Management (OP/BP 4.09) may be triggered and physical cultural resources and pest management plan may need to be developed and included in the ESMP. Also see additional guidance provided in Annexes 3(b), 3(c), and 3(d).

- *Part VI-ESMP implementation arrangement:* Clearly explain roles of key agencies responsible for implementation who will be responsible for implementation of the ESMP including monitoring at Project and subproject level (CPMU, PPMU, contractors, field supervision consultants, independent environmental supervision consultants, local environment management agencies, NGOs and its partners (if needed). Details can be provided as an annex if needed. This section should also include an e*nvironmental compliance framework* explaining how the subprojects will be monitored to ensure compliance with WB safeguard policies and GOV requirements and *report procedures and responsibilities* of different stakeholders and type of reports needed (*see ESMF main text Section 7 and Annex 5).*
- *Part VII-Capacity building, training, and technical assistance:* Clearly explain the needs and activities to be carried out to ensure effective implementation of subprojects. The activities may include buying equipment, training, consultant service and other specific researches. All stakeholders need to be trained on general environmental knowledge and training/educating about their responsibilities. This section should also be consistent with the capacity building and training of the ESMF (see *ESMF main text Section 8*).
- *Part VIII- Expected budget for ESMP implementation:* ESMP preparation cost depends on various factors such as complexity of potential impacts. Scope of the budget should be consistent with that described in the ESMF *(see ESMF main text Section 9*). The budget will be provided as part of the subproject cost.
- *Part IX-Grievance Redress Mechanism (GRM).* Presents the GRM to be used for the subproject. It should be consistent with the GRM process to be used for the Project (*see ESMF main text Section 10 and Annex 5).*
- *Part X-Public consultation and information disclosure:* The ESMP should clearly describe key actions undertaken on public consultation. For FMRCP, at least one public consultation during the preparation of ESMP will be required. When subprojects involve land acquisition or resettlement and/or ethnic minority, extensive consultation with local authorities, project affected people, and/or target ethnic peoples will be required during preparation of RAP and/or EMDP. All safeguard documents are required to be disclosed at the Project and subproject locations in a language understandable by the local. A summary of the public consultation and information disclosure which were conducted during the ESMP preparation should be included in the ESMP. WB clearance for all RAPs and EMDPs will be required.
- ***Annexes*** –provide additional details for the ESMP main text as needed. Maps, background information, and specific requirements should be provided.

Table A3.1: Example of a Mitigation measure matrix

Phase	*Issue (see remark)*	*Mitigation Measure*	*Locations for mitigation measures*	*Applicable Standard (e.g. country, WB, EU)*	*Cost of Mitigation*	*Responsible party*	*Verification to determine effectiveness of measures*
Design/Pre-Construction							
Construction							
Operation							
Decommissioning							
Remark: The issues should highlight potential health and safety impacts of plantation and other productive activities.							

Annex 3(b) Guidelines for Addressing Safeguard Issues of Component 2

1. According to the prefeasibility study (draft December 2016), the subproject activities to be carried out under Component 2 will only support the implementation of good practice activities in the forestry sector focusing on protection, restoration, and replanting of coastal forest and mangrove including construction, upgrading, repairing, and/or improvement of small-scale infrastructure (such as soft-wall structure, wave barrier, wave break, wind break, dike, drainage, forest roads, forest protection stations, etc.) considered necessary for increasing survival of mangrove, reducing wave energy, limiting moving sand, enhancing effectiveness of coastal forests and/or coastal resilience, and/or contributing to rural development (estimated cost will be less than15 billion VND/work or $70,000). Mangrove afforestation and rehabilitation is likely to be conducted in Quan Ninh and Hai Phong while activities related to coastal forests are likely to be conducted in the remaining 6 provinces where sandy coastal and inland sand can be found.

2. Given complexity of the coastal ecosystems and need for active participation of local stakeholders, the Project has been designed to mobilize qualified national consultants (TA) to assist PPMUs and CPMU during the preparation, detailed design, supervision, and M&E of the subproject activities during the first 2 years of Project implementation. PPMU will be responsible for mobilization of the subproject TAs (for design, supervision) as well as for contractors to provide seedlings and conduct forest plantation/protection/restoration, and construction of infrastructure works including training to communities/HH groups which will be responsible for maintenance and tendering of the subproject activities. CPMU will be responsible for supervision and monitoring of subproject implementation and progress including procurement of large package of equipment and goods for the subproject.

3. Specific guidelines provided in this section focus only on the likely activities that may be implemented under this component. However, additional guidelines and/or requirements may be provided by the WB safeguard specialist when there are other unforeseeable issues occur during implementation. Subsections below provide guidance for mitigating impacts due to (*i) UXO risks, (ii) forest/mangrove plantation/rehabilitation, (iii) community forest management; (iv) construction, upgrading, and/or rehabilitation of small infrastructure, and (v) site-specific impacts.* These guidelines will be considered during the preparation of the ESMP of the subproject when the impacts are found to be moderate.

(i) Mitigating UXO Risks

4. The Project area was significantly affected by conflict operations during the Vietnam War. However, results from the community consultation shows that, in proposed subroject areas, there has not been any cases related to UXO. However, risk assessment of residue UXOs is to be conducted in the subproject area, especially in Thanh Hoa, Nghe An, Ha Tinh, Quang Binh, Quang Tri and Thua Thien Hue provinces. The subproject activities will be conducted only after completion of this assessment.

(ii) Mitigations during Protection/Rehabilitation of Coastal Forests and Mangrove

5. To be consistent with GoV policies and regulations, the following will be considered during the preparation of an ESMP for the subproject:

TT	Socio-environmental management policies of Vietnam	Explanation/Optional
1	Biodiversity Law No. 20/2008/QH12 dated 13/11/2008 of the National Assembly regulations on the biodiversity conservation and sustainable development; the rights and obligations of organizations, households and individuals in the biodiversity conservation and sustainable development;	The project activities related to the exploitation and use of resources under the forest canopy. Harmonious integration between biodiversity conservation with exploitation and rational use of biological resources; integration between conservation, sustainable exploitation or use of the biodiversity with livelihood improvement is one of the principles of biodiversity conservation and sustainable development that being regulated in this Law. Therefore, regulation of benefit sharing between the stakeholders should be ensured during implementation of the project activities in order to ensure the benefits of organizations and individuals from exploitation and use of biological resources under the forest canopy. Ensuring harmony between the interests of the State with organizations or individuals.
2	Law on Forest Protection and Development No. 29/2004/QH11 dated 03/12/2004 of the National Assembly regulations on the management, protection, development and use of forests; the rights and obligations of forest owners	The forest protection and development activities of the project including plantation, rehabilitation, enrichment, protection of current forest areas of the project must be complied and fitted with land use plans and land use planning that regulated in the Law. The allocation of forest management to the community must not harm the interests of the State, organizations and other related individuals.
3	Decree No. 116/2014/ND-CP dated 04/12/2014 of the Government on stipulating detail and guidance on executing a number of articles of the Law on Plant Protection and Quarantine;	The project does not export or import of any species that is under plant quarantine procedures. Plant pest risk of mangrove and coastal inland forests has never happened in the past in Vietnam, as well as in the project provinces. But the project still needs to perform surveillance for plant pest management under the provisions of this Decree to ensure emergency encirclement and pest treatment (if any).
4	The Circular No. 21/2013/TT-BNNPTNT dated 17/04/2013 of the Ministry of Agriculture and Rural Development on the promulgation of the list of acceptable, restricted and banned agrochemicals, and the additional lists of plants varieties allowed to be produced and traded in Vietnam	According to the statistics, pests almost did not happen to mangrove forests and coastal inland forests in the past in the project areas. Thus, the project will not use pesticides in the activities of plantation, forest tending and rehabilitation. However, the project still conduct supervision of the seedling suppliers to ensure that there is any pesticides and agrochemical given in the list of banned agrochemicals of the Government of Vietnam or regulations of international to be used for producing seedlings
5	Decree No. 119/2016/ND-CP dated 23 August 2016 of the Government providing for policies on sustainable management, protection and development of coastal forests to cope with climate change	Activities of construction of silvicultural works or other works as upgrading of coastal infrastructure need to be reviewed to ensure that those works do not affect or have a risk to the protection function of the mangrove forests or coastal inland forests that was specified in the Law.
6	Decree No. 99/2010/ND-CP on the policy on payment for forest environment services.	The project will support, establish a policy and mechanism on payment for coastal forest environmental services. Therefore, this mechanism is only really feasible when the provisions of this Decree are conformity ensured with a basic principle as openness

TT	Socio-environmental management policies of Vietnam	Explanation/Optional
		and fairness.
7	Decision No. 89/2005/QD-BNN promulgation regulation on management of forest plant varieties	The project activities such as plantation, rehabilitation and enrichment need to apply these provisions in order to manage the quality of seedlings and monitoring the CoC (Chain of Custody) of forestry plant varieties.
8	Decision 2194/QD-TTg in 2009 on development of seedlings and breeding	The project does not produce seedlings themselves but it supports technology for the seedling producers. In addition, the project also invest, support for the storage or processing facilities in order to create a value chain. Therefore, these activities of the project should be reviewed and selected to ensure there is no overlap with other invested projects that would increase the investment efficiency of the project.
9	Decision 1205/QD-BNN-TCLN in 2016 promulgation technical guidance to afforestation of mangrove apple, black mangrove, Indian Mangrove, River Mangrove and Kandelia	The evaluation of growing conditions, plant species and planting techniques plays an effectiveness of plantation activities. Therefore, compliance with the guidelines on this regulation will ensure the achievement of the project's purposes for the mangrove area
10	Decision No.73/2010/QD-TTg dated on 16 November 2010 of the Prime Minister promulgating the regulation of management of investment, in construction of silviculture works. Circular No. 69/2011/TT-BNNPTNT providing guidelines for a number of contents in the Regulation on management of investments in construction of silviculture works accompanying Decision No. 73/2010/QD-TTg dated November 16, 2010 of the Prime Minister	The project activities in construction of the silviculture infrastructure must comply with this regulation to ensure the selection of construction site, designing and construction contractors will not affect the protection functions of forests and ecosystems.
11	Sector Standard No.04-BC-46-2001 (issued together with the Decision No. 516-BNN-KHCN dated February 18, 2002) on process of afforestation design	This standard stipulates the basic principles for the contents and methods of the design for planting to mature forest (closed canopy). In addition, this standard is the legal basis for implementation, monitoring and evaluation afforestation design prescribed by the Government of Vietnam.

6. ***Protection, plantation, seedling, and tendering*** may create site specific impacts due to types of activities and locations of the subproject areas. Although technical criteria for site selection and methodology for plantation, and etc. are being developed and they will be included in the Project POM, from safeguard point of views, it is important to ensure the followings during site selection, seedling, and tendering stages:

For Mangrove	*For Inner Coastal Forest*
For site selection for mangrove: Selection of areas where there was previous forests for plantation; Selection of estuary areas, stable background areas with its rich nutrients and sandy percentage < 80%; Selection of areas where have a exposure time > 4 hours/day; intertidal time > 5 days/month; depth of tide crest < 3 m; Selection of areas under going the deposition period or erosion-deposition process is equilateral; Selection of areas where have salinity < 35 $^{0}/_{00}$; and Do not select areas near by industrial zone, harbors or undergoing construction of coastal	Selection of the relatively stable sand areas, where have grass growth and away from the water's edge at crest tide from 20 - 50 m; Selection of areas where have elevation < 100 m, slope < 5^{0}; sandy plain terrain and hills; and Do not select mobile sand areas and flooded areas during rainy season.

infrastructural works.	
For seedling of mangrove: Height of seedling > 1.5 m; stump diameter of seedling > 1.2cm; tree age > 24 months; Dimension of seedling bottle is 40 x 30 cm (height x diameter); Seedlings grow well, no disease, no broken tree trunk or branch.	*Seeding coastal inland forests:* Height of seedling > 2.5 m; stump diameter of seedling > 1.5 cm; tree age > 12 months; Dimension of seedling bottle is 18 x12 cm (height x diameter); and Seedlings grow well with it's straight trunk, top of tree and no disease.
For planting and tender technique of mangrove forest: Selection of seedlings and planting techniques according to the Basis Standard TCCS 08:2011; Priority is mixed-species plantation under natural ecological succession of mangrove trees; and Do not remove all vegetation during plantation and tending of forests.	*Plantation of species including: Casuarina equisetifolia, Acacia auriculiformis*; mixed *Casuarina equisetifolia + Acacia auriculiformis;* Planting techniques of *Casuarina equisetifolia* according to the Branch Standard TCN 20:2010. Technical regulations on *Casuarina equisetifolia, Acacia auriculiformis* plantation. Do not remove all vegetation during plantation and tending of forests.

7. ***Prevention of invasive species:*** Intentional or accidental introduction of alien, or non-native, species of flora and fauna into areas where they are not normally found can be a significant threat to biodiversity, since some alien species can become invasive, spreading rapidly and out-competing native species. Forest operators should not intentionally introduce any new alien species (not currently established in the country or region of the project) unless this is carried out in accordance with the existing regulatory framework for such introduction, if such framework is present, or is subject to a risk assessment (as part of the Social and Environmental Assessment) to determine the potential for invasive behavior. Operators will not deliberately introduce any alien species with a high risk of invasive behavior or any known invasive species, and will exercise diligence to prevent accidental or unintended introductions. Operators should also take precautions to prevent the spread of existing exotic species as a result of forestry operations. Management techniques include procedures to ensure that equipment (e.g. trucks, skid machines) are power washed prior to moving from an infested area to an un-infested area.

Species should be selected on the basis of their overall suitability for the site and their appropriateness to the management objectives. To enhance biodiversity conservation, native species are preferred over exotic species for watershed restoration programs and for some plantation situations. Exotic species should be used only if their overall performance over the long-term is demonstrably greater than that for native species. Exotic species shall be monitored to detect unusual mortality, disease or insect attacks and adverse ecological impacts. No new exotic species shall be introduced on a large scale until local trials and experience demonstrate that they are ecologically adapted, non-invasive and have no significant ecological impacts on other ecosystems.

As great a variety as possible of clonal materials (i.e. Acacia spp.) should be made available to planting sites. As a general rule, not more than 20% of the plantings in any one commune, and no area of plantation greater than 30 ha shall be to a single clone. Where a range of clonal materials is not available, clonal plantations should be surrounded by blocks of other plantation species or by sanitation corridors of native vegetation.

8. *Assessment of possible impacts from invasive* species *should therefore be considered during the preparation of the ESMP of subproject.*

9. ***Pest outbreak:*** Monoculture plantation may require periodic treatment of pesticides and/or other toxic substance. If pesticides and/or toxic agrochemical is used, follow the guidelines provided in Annex 3(c) on the use of pesticides and/or toxic chemicals. In additions, to avoid potential adverse impacts the following measures will be considered:

- Selection of tree species and planting season are suitable with natural condition of the proposed areas in order to prevent habitat disturbance;
- Selection of suitable cultivation techniques with site conditions of the proposed areas;
- Applied silvicultural techniques to be trained;
- Selection of quality seedlings which are suitable with difficult site conditions;
    - Mixed-species plantation should be prioritized;
    - Do not use pesticides and growth stimulant substances, unless it is considered necessary by an expert.

10. ***Forest fire risks:*** Wildfires caused by natural events (e.g. lightening strikes) or human error are one of the most significant risks to the profitability and sustainability of forest resources. In natural forests, the opening of the forest canopy by selective logging usually leads to a proliferation of ground level vegetation. This is often accompanied by an increased ignition hazard due to the presence of forestry workers or members of the public who use forestry roads for access. Forest fire prevention and control activites must be an integral part of the operational plan for plantation area and complied with Decree No. 09/2006/ND-CP (Regualtion on the Prevention and Fighting of Forest Fires). Such plan should establish a fire control unit, define roles and responsiblities, and detail prevention, public education, patrolling, enforecement and fire response programs. To avoid and/or mitigate the risk, the following measures will be considered:

- Development of a fire risk monitoring system.
- Preparation of a formal fire management and response plan supported by the necessary resources and training, including training for workers in the use fire suppression equipment and evacuation. Procedures may include coordination activities with local authorities. Further recommendations for emergency preparedness and response are addressed in the General EHS Guidelines.
- Conducting the training on forest fire prevention plans.
- Forestry operations should be equipped with fire suppression equipment appropriate for the size of operations and that meets internationally recognized technical specifications (e.g. fire beaters and knapsack sprayers, small portable water pumps and tanks, and water tankers).
- Undertake regular removal of high-hazard fuel accumulations (e.g. through thinning and prescribed burns). Time thinning and prescribed burns to avoid forest fire seasons. Prescribed burns should adhere to applicable burning regulations, fire suppression equipment requirements, and typically must be monitored by a fire watcher.
- Establishment and maintenance of a network of fuel breaks of less flammable materials or cleared land to slow progress of fires and allow fire-fighting access.
- Total area of the coastal forest protection, plantation and rehabilitation under the project is 72,412 ha. Therefore, 93 km of fire break should be established in the plantation areas in order to prevent and minimize damage to forests. Width of fire break is from 10 - 15 m and is cleanly maintained every year. Inland forests will be cleaned in the dry season (from October to March of next year).

11. ***Meeting international practices:*** To make sure that the proposed subprojects/activities will not create adverse impacts during preconstruction, construction and operations stages, it is necessary to ensure that the subproject design incorporates means for addressing the following issues: the potential of forest restoration to improve biodiversity and ecosystem functions; the potential to establish plantations on non-forest lands that do not contain critical natural habitats; the need to avoid conversion or degradation of natural habitats; and the capacities of the government, nongovernmental organizations, and other private entities to cooperate in the forest restoration and plantation

development.

12. In this context, the Guideline for Application of the Forest Stewardship Council (FSC) Principles for Sustainable Forest Management (SFM) *in Boxes A3.1 and A3.2* will be considered during the design and selection of the subproject site and included in the ESMP of the subproject.

Box A3.1. FSC 10 principles

- Forest management shall respect all applicable laws of the country, international treaties and agreements to which the country is a signatory, and comply with all FSC Principles and Criteria.
- Long-term tenure and use rights to the land and forest resources shall be clearly defined, documented and legally established.
- The legal and customary rights of indigenous peoples to own, use and manage their lands, territories and resources shall be recognized and respected.
- Forest management operations shall maintain or enhance the long-term social and economic well-being of forest workers and local communities.
- Forest management operations shall encourage the efficient use of the forest's multiple products and services to ensure economic viability and a wide range of environmental and social benefits.
- Forest management shall conserve biological diversity and its associated values, water resources, soils, and unique and fragile ecosystems and landscapes, and, by doing so, maintain the ecological functions and the integrity of the forest.
- A management plan - appropriate to the scale and intensity of the operations - shall be written, implemented, and kept up to date. The long-term objectives of management, and the means of achieving them, shall be clearly stated.
- Monitoring shall be conducted - appropriate to the scale and intensity of forest management i to assess the condition of the forest, yields of forest products, chain of custody, management activities and their social and environmental impacts.
- Management activities in high conservation value natural forest communities shall maintain or enhance the attributes that define such forests. Decisions regarding high conservation value natural communities shall always be considered in the context of a precautionary approach
- While plantations can provide an array of social and economic benefits, and can contribute to satisfying the world's needs for forest products, they should compliment the management of, reduce pressures on, and promote the restoration and conservation of natural forest communities. Plantations should be planned and managed in accordance with the preceding nine principles

**Source: Summarized from Forest Stewardship Council, Principles and Criteria for Forest Stewardship (Revised 1996, further revised 1999)*

Box A3.1. FSC 10 principles

- The management objectives of the plantation, including natural forest conservation and restoration objectives, shall be explicitly stated in the plantation management plan, and clearly demonstrated in plan implementation.
- The design and layout of plantations should promote the protection, restoration and conservation of natural forests, and not increase pressures on natural forests. Wildlife corridors, streamside zones and a mosaic of stands of different ages and rotation periods shall be used in the layout of the plantation, consistent with scale. The scale and layout of plantation blocks shall be consistent with the patterns of forest stands found within the natural landscape.
- Diversity in the composition of plantations is preferred so as to enhance economic, ecological and social stability. Such diversity may include the size and spatial distribution of management units within the landscape, number and genetic composition of species, age classes and stand structures.
- The selection of species for planting shall be based on their overall suitability for the site and their appropriateness to the management objectives. In order to enhance the conservation of biological diversity, native species are preferred over exotic species in the establishment of plantations and the restoration of degraded ecosystems. Exotic species, which shall be used only where their performance is greater than that of native species, shall be carefully monitored to detect unusual mortality, disease of insect outbreaks and adverse ecological impacts.
- A proportion of the overall plantation area, appropriate to the scale of the plantation and to be determined in regional standards, shall be managed so as to return the site to a natural forest cover.
- Measures shall be taken to maintain or improve soil structure, fertility, and biological activity. The techniques and rates of harvest, road and trail construction and maintenance, and the choice of species shall not result in long-term soil

degradation or adverse impacts on water quality, quantity or substantial deviation from natural stream course drainage patterns.

- Measures shall be taken to prevent and minimize outbreaks of pests, diseases, fire and invasive plant introductions. Integrated pest management shall form an essential part of the management plan, with primary reliance on prevention and biological control methods rather than chemical pesticides and fertilizers. Plantation management should make every effort to move away from chemical pesticides and fertilizers, including their use in nurseries.
- Appropriate to the scale and diversity of the operation, monitoring of plantations shall include regular assessments of potential on-site and off-site ecological and social impacts (e.g. natural regeneration, effects on water resources and soil fertility, and impacts on local welfare and social well-being). No species shall be planted on a large-scale until local trials and/or experience have shown that they are ecologically well-adapted to the site, are not invasive, and do not have significant negative ecological impacts. Special attention will be paid to social issues of land acquisition for plantations, especially the protection of local rights of ownership, use and access.
- Plantations established in areas converted from natural forests (*Natural forests are forest areas where most of the principle characteristics and key elements of native ecosystems, such as complexity, structure and diversity are present, and include primary and secondary forest ecosystems as defined by FSC-approved national and regional standards of forest stewardship*) after November 1994 normally shall not qualify for certification. Certification may be allowed in circumstances where sufficient evidence is submitted to the certification body that the manager/owner is not responsible directly or indirectly for the conversion

**Source: Summarized from Forest Stewardship Council, Principles and Criteria for Forest Stewardship (Revised 1996, further revised 1999)*

(iii) Mitigations for Community Forest Management (CFM)

13. *Community-Based Forest Management and Development:* The Bank policy on Forests requires that if the project is designed to support community-based forest management and development, it must be ensured that, as appropriate, the project's design takes the following into account:

(i) the extent to which the livelihoods of local communities depend on and use trees in the project and adjacent area,

(ii) the institutional, policy, and conflict management issues involved in improving the participation of indigenous people and poor people in the management of the trees and forests included in the project area; and

(iii) forest product and forest service issues relevant to indigenous people and poor people living in or near forests in the project area, as well as opportunities for promoting the involvement of women.

14. Recent report[29] suggested that in Vietnam, the concept of CFM was formally recognized in the Law on Foresry Protection and Development (2014). With assistance from international agencies, efforts have been made to promote CFM process in many pilot provinces[30] focusing mainly on issues such as (a) the process of forest land allocation to households and household groups (particularly to poor, ethnic minorities whose livelihoods are closely linked to traditional forest management); (b) the decentralization of forest management; and (c) the development of pro-poor mechanisms targeting groups involved in innovative forest management solutions. Through training and capacity building on technical and management aspects, local communities could perform their functions. However, sustaining CFM process has been facing many difficulties and challenges and the key ones include (i) Inadequate financial support, (ii) Difficulty with land allocation and administrative procedures, (iii) Lack of clarity on roles of communities, and (iv) Lack of capacity in facilitating participatory

[29] Reference: Community Forest Management (CFM) in Viet Nam: Sustainable Forest Management and Benefit Sharing, by Bao Huy, Department of Forest Resources and Environment, Tay Nguyen University, Vietnam.

[30] The pilot provinces included Son La, Hoa Binh, *Thua Thien Hue, Quang Nam,* Binh Dinh, Quang Ngai, Dak Lak, Dak Nong, and Gia Lai.

approaches to forest allocation, and community forest assessment and planning. In addition, the policy on benefit sharing for land recipients is not clear while the administrative procedures for harvesting, which have historically been applied to State Forest Enterprises, are too complicated for the local people in the CFM context. Moreover, unlike individuals or companies, communities and villages have no legal standing and thus cannot be allocated or contracted forestland.

14. *Given small and participatory nature of the CFM activities, it is not expected that the CFM process to be carried out under FMCRP will create negative impacts and preparation of an ESMP is not required.* However, there are concerns on sustainability of this approach, especially when involve vulnerable people and/or ethnic minority. Therefore, to ensure achievement of sustainable forest management by local communities, which is one of the key safeguard concern, it is necessary for the subproject to clearly and effectively address the sector issues related to *forestry techniques and approaches, forestry policy, and forestry administration* that could address key issues such as benefit sharing, rights, and the administrative procedures for harvesting and utilization of resources. The study also discussed the lessons learnt[31] and provided guidelines for participatory forest assessment and planning, development of local regulations for forest protection and development, in conjunction with simple silvicultural treatments that could be applied to local communities as well as mechanisms to identify benefit sharing and rights of communities and procedures for the suitable management and monitoring of CFM (see *Box A3.4, A3.5, A3.6, and A3.7). These guidelines should be considered during the design and planning of subproject activities*.

15. It is noted that in northern Vietnam, most mangrove forests have protection status, are often owned and managed by state entities (e.g. FMBs, CPCs) and are not allocated to households and individuals. The primary purpose of mangroves is likely to be to provide a collective service in protecting coastal communities against storms. Local inhabitants are usually not allowed user rights and only a small number of individuals benefit from being contracted to plant or protect the mangroves.

Box A3.4 Some guidelines for CFM

The methodology covers areas such as the development of participatory methods and approaches for forest land allocation, forest assessment, development of forest management plans, designing forest protection regulations, and the development of simple silvicultural guidelines. Five key steps are as follows (see Figure 1):

- (Step 1) Development of a five-year forest management plan by the community, ultimately calculating community needs, both domestic and commercial, and ability of their forest resource base to meet these needs;
- (Step 2) Development of local forest protection and regulations in accordance with the existing legal framework;
- (Step 3) Development of a forest management plan which is appropriate for the selected sivilcultural methods taken into account both traditional and customary systems and in conjunction with the need for capacity building and monitoring mechanism and cost; and
- (Sep 4) Implementation of the plan including monitoring and reporting mechanisms.
- Cost effective of the CFM system is critical for its sustainability.

Box A3.5: Forestry techniques and approaches for CFM

- To support the implementation of CFM, guidelines have been established for participatory forest assessment and planning, the formulation of local regulations on forest protection and development, and simple silviculture techniques (SFDP Song Da 2002, ETSP/Helvetas 2005, RDDL/GFA 2005– 2006). Within these guidelines, participatory approaches have been developed to: Enhance community participation in the decision-making process during the development and implementation of forest management plans, forest protection regulations, and development regulations. This will in turn assist the community in improved management of their forest resources.

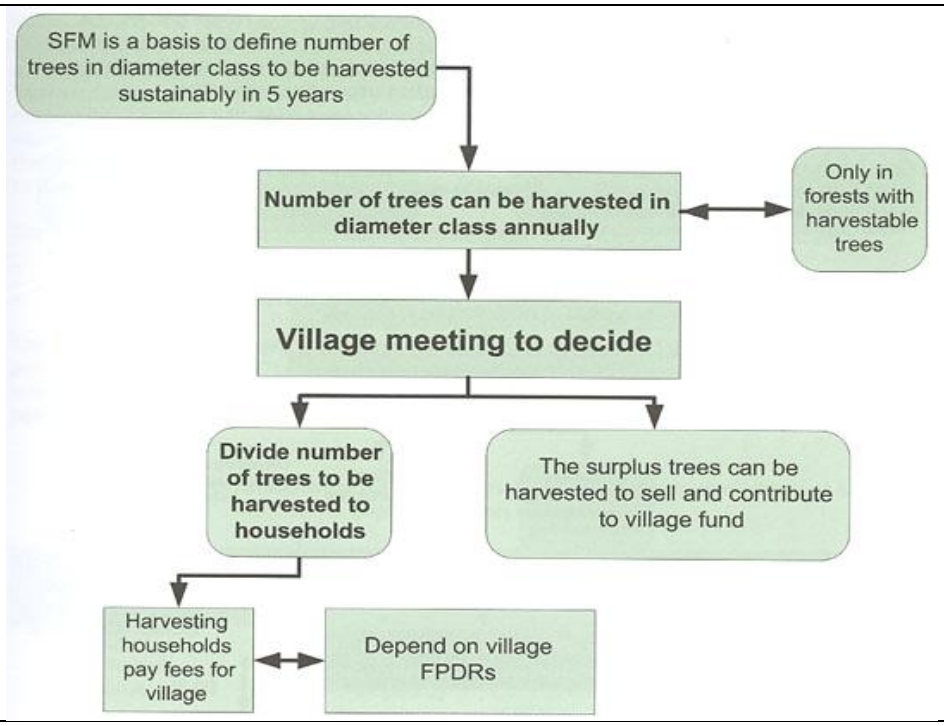
[31] The lessons were derived from the Song Da Social Forestry Development Project (SFDP) in Son La Province, experiences in undertaking consultancies with the Extension and Training Support Project (ETSP) in Hoa Binh, Thua Thien Hue and Dak Nong Provinces, and for the Rural Development Project of Dak Lak (RDDL) in Dak Lak Province (capacity building, initiation and implementation of CFM pilots), and from experience with Government-funded research on establishing a CFM model in Gia Lai Province.

- ***Define the role of technical staff*** in CFM as one of facilitation and support to the community during all steps of the CFM process, such as providing information on changing forestry policies and new and appropriate silvicultural technologies.
- ***Define the roles and responsibilities of community members*** in CFM organizational systems.
- ***Build capacity in using simple methods and tools*** (communities differ in terms of management capacity, education level, and experience in natural resource management).
- ***Promote a common learning process.*** CFM is a new approach in Viet Nam, with the methodology being continually developed and improved, and there is no one model that can be applied to all situations. Approaching CFM as a learning process is therefore more realistic and sensible at this time.
- Through the development of new methodologies and sharing of experiences, a more effective and flexible approach that is adaptable to all conditions will be encouraged.

Box A3.6 CFM Policy

- ***Setting benefit-sharing mechanisms in CFM:*** The system of using post-allocation incremental growth to determine equitable harvesting programs appears to be a fair system. The traditional volume-based growth harvesting system is not practical, as there is a lack of data norms for different forest types, soil conditions, climate, and forest condition which are needed to model growth. As a result, using the SFM system to define harvest strategies and benefit sharing is the preferred option. SFM as a tool for determining forest increment and benefit sharing. The benefit-sharing plan is determined as a result of the harvest limits, which are based on a percentage of the tree diameter growth over five years, regardless of forest condition variations between blocks. Based on this, the community can develop an equitable intra-block sustainable 5-year harvest plan.
- ***Proposed mechanism for benefit sharing among forest users:*** In order for community forest management to be undertaken by communes and villages without external financial support, benefit sharing must be both equitable and transparent. Community forest management is considered as a livelihood development or poverty alleviation form of forestry, and the income generated from selling timber and non-timber forest products can be used for common community interests and as a direct form of compensation or income for communities. Based on the growth data over five years, benefits can be calculated for each stage of the 5-year CFM plan. Comparing the actual number of trees from each forest plot against the SFM guidelines, the community can calculate which trees can be harvested. SFM is therefore used as a control for determining harvesting rates and benefits to be shared.
- ***Benefit-Sharing Mechanisms for Household Purposes (see Figure 2):*** The Village Forest Management Board (VFMB) organized a village meeting to decide on the following issues: (i) The amount that households can harvest annually for their personal consumption; (ii) The amount households must pay in partial fees to the village fund, agreed on in the Village Forest Protection and Development Regulations (FPDRs), for village forest management; and (iii) The amount of surplus trees (if available) that can be harvested to contribute to the village fund for forest management.
- ***Benefit-Sharing Mechanisms for Commercial Purposes:*** The trees harvested annually are sold and benefits are shared as follows (see Figure 3): First, a payment of a natural resource tax is made. This is usually between 15% and 40%, depending on timber groups and diameter regulations. The tax paid is transferred to the commune for forest management, or for investment and development of bare land or more degraded plots; Second, all harvesting costs such as felling, transportation, and forest cleaning are deducted; Third, after deducting payment of the natural resource tax and harvesting costs, 10% of the remaining income is allocated to the Commune People's Committee (CPC) for forest management costs and an allowance for the Commune Forest Management Board (CFMB); and Finally, the remainder is shared among the VFMB, the village fund establishment and the households involved in CFM.
- The benefit-sharing regime is based on the village FPDRs, which are agreed on by the entire village and approved by the local authority. This benefit-sharing mechanism aligns with the forestry techniques and forest land allocation policy, in which the forest owners can generate income through incremental growth. The SFM approach is robust and functional at the community level; however, to fully benefit from CFM, forest users still need to better understand markets and the administrative procedures surrounding harvesting.

Figure 3: Benefit sharing for household purpose



Box A3.7 Forestry administration for CFM

- The concepts, methods, and tools of CFM are still relatively new to forestry agencies and staff in Vietnam. It is therefore important to set up a management and monitoring system for the implementation of the CFM plan, particularly for harvesting activities. This management and monitoring system needs to be designed according to community capacity, with a focus on improving self-reliance and monitoring.
- In this system, the roles and tasks of local authorities and other stakeholders engaged in the CFM process need to be clearly defined in order to best support the process. To this end, a management system and CFM guidelines are currently being developed by the National Working Group on Community Forestry Management (NWG CFM). In principle, the new management system will encourage a decentralized decision-making process and promote monitoring at the community level. It should facilitate the link between the community and the district level, and reduce complex procedures for communities that impede on their ability to manage and monitor their forest resources efficiently.
- The monitoring mechanism should distinguish between two types of timber harvesting: (i) Harvesting for domestic consumption and (ii) Harvesting for commercial purposes.
- The suggested administrative procedures for CFM are presented in Figure 4 and Table 1 below, and have been piloted in T'Li Village through the RDDL Dak Lak Project. The main procedural steps for CFM are quite simple in comparison to traditional methods currently applied to SFE operations.

Figure 4: Forestry administrative procedures to harvest timber for own consumption and commercial purposes

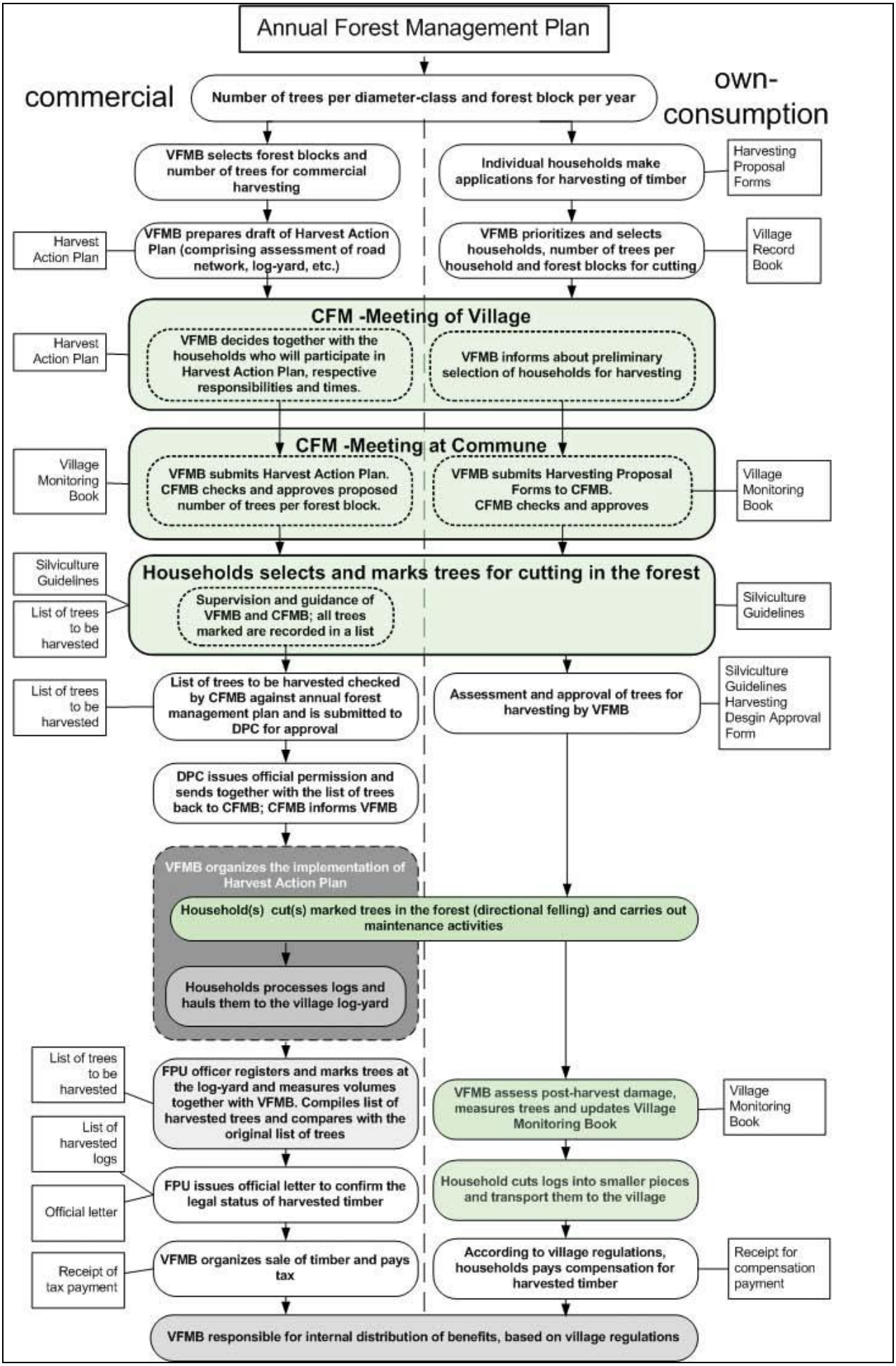

Annual Forest Management Plan
commercial
own-consumption
Number of trees per diameter-class and forest block per year
VFMB selects forest blocks and number of trees for commercial harvesting
Individual households make applications for harvesting of timber
Harvesting Proposal Forms
Harvest Action Plan
VFMB prepares draft of Harvest Action Plan (comprising assessment of road network, log-yard, etc.)
VFMB prioritizes and selects households, number of trees per household and forest blocks for cutting
Village Record Book
CFM -Meeting of Village
Harvest Action Plan
VFMB decides together with the households who will participate in Harvest Action Plan, respective responsibilities and times.
VFMB informs about preliminary selection of households for harvesting
CFM -Meeting at Commune
Village Monitoring Book
VFMB submits Harvest Action Plan. CFMB checks and approves proposed number of trees per forest block.
VFMB submits Harvesting Proposal Forms to CFMB. CFMB checks and approves
Village Monitoring Book
Silviculture Guidelines
List of trees to be harvested
Households selects and marks trees for cutting in the forest
Supervision and guidance of VFMB and CFMB; all trees marked are recorded in a list
Silviculture Guidelines
List of trees to be harvested
List of trees to be harvested checked by CFMB against annual forest management plan and is submitted to DPC for approval
Assessment and approval of trees for harvesting by VFMB
Silviculture Guidelines Harvesting Desgin Approval Form
DPC issues official permission and sends together with the list of trees back to CFMB; CFMB informs VFMB
VFMB organizes the implementation of Harvest Action Plan
Household(s) cut(s) marked trees in the forest (directional felling) and carries out maintenance activities
Households processes logs and hauls them to the village log-yard
List of trees to be harvested
FPU officer registers and marks trees at the log-yard and measures volumes together with VFMB. Compiles list of harvested trees and compares with the original list of trees
VFMB assess post-harvest damage, measures trees and updates Village Monitoring Book
Village Monitoring Book
List of harvested logs
Official letter
FPU issues official letter to confirm the legal status of harvested timber
Household cuts logs into smaller pieces and transport them to the village
Receipt of tax payment
VFMB organizes sale of timber and pays tax
According to village regulations, households pays compensation for harvested timber
Receipt for compensation payment
VFMB responsible for internal distribution of benefits, based on village regulations

Table 1: Simplified Administrative and Technical Procedures for Plan Approval and Implementation of CFM ***(Source: RDDL 2006)***

Procedure	**Description**	**Approval**	**Comparison with traditional SFE approach**
Approval of 5-year forest management plan	Approved 5-year forest management plan is developed by community	Commune People's Committee (CPC); District People's Committee (DPC)	*Established by professional company and approved by DARD and Provincial People's Committee (PPC)*
Annual forest management planning and approval	Annual forest management plan is developed based on the 5-year plan by community	CPC	*Established by State Forest Enterprise (SFE) and approved by Department of Agriculture and Rural Development (DARD) and PPC*
Select and mark trees	Selected trees marked in the forest by painting order numbers in red by farmer		*Mark trees to be cut by forest hammer by Provincial Forest Department or a professional company*
Issuance of timber harvesting permit	List of marked trees is submitted for harvesting permit by VFMB	DPC	*Approved by DARD, PPC*
Post-harvest monitoring	Monitor felled trees, location, forest cleaning, forest status post harvest... follow the silvicultural guidelines by VFMB and CFMB		*Monitor by Forest protection Unit (FPU), DARD*
List of volume of logs in log yard; legalized by hammering in log yard	Farmers make list of timbers; seal with FPU hammer and make a minute	FPU	*Villagers must follow the same procedures as SFEs to ensure their timber has legal documentation for sale*
Selling timber in delivery log yard	Organize auction or another selling form selected by community		*Organized by SFE*
Benefit sharing; village fund management	After deducting natural resource tax and actual harvesting costs, 10% share for CPC, the rest is shared in accordance with FPDRs		*No benefit for communities*

(iv) Mitigation during Construction, Upgrading, and/or Rehabilitation of Small Infrastructure

16. In general, potential negative impacts during preconstruction, construction, upgrading, and/or rehabilitation of small-scale infrastructure to be implemented under FMCRP will involve generation of air pollution, noise, vibration, water pollution, wastes, and traffic congestions including increasing safety risks to residents and general public as well as other site-specific impacts that will depends on site location, type of activities, and other factors. CPMU and PPMUs will ensure that the ESMP are in line with all conditions mentioned in basic principles described above (Annex 3(a)). Both the mitigation measures described in the ECOP as well as the site-specific requirements will be included in the bidding and contract documents. The subproject owner will be required to assign the construction supervision consultants (CSC) to also supervise the contractor performance per these requirements on a day-to-day basis and include the results in the subproject progress report. CPMU and WB will conduct periodical monitoring and include the results in the Project progress report and/or safeguard monitoring reports.

17. ***To mitigate the general construction impacts,*** the following measures will be considered:

- Apply ECOP and include it in the consultant contract and ensure that the contractor understand this commitment and it is part of subproject cost. A generic ECOP is provided in Annex 4. For small works, a simplified ECOP (Annex 4 (b)) could be applied. The ECOP describes scope of issues to be addressed by ECOP, GoV regulations to be applied, monitoring and reporting requirements, and proposed mitigation measures.
- Ensuring that contractors apply good construction practices and/or ECOP including initiation and maintaining close consultation with local authorities and communities throughout the construction period.
- Ensuring close supervision of field engineers and/or environmental officer.

(v) Mitigation for site-Specific Impacts

18. Site specific impacts may create potential conflicts among local population and it should be considered in connection with other existing and future activities in nearby areas. Impacts due to resettlement, land acquisition, and/or ethnic minorities, UXO risks are considered site-specific impacts and mitigation will be made through the preparation and implementation of RAP and EMDP. As other site-specific impacts can create both positive and negative impacts on the subject and nearby areas depending on location and type/scale of the subproject activities, all other site-specific impacts and mitigation measures will be identified during the preparation of an ESMP for the subprojects.

19. To avoid and/or minimize potential adverse impacts the following will be considered:

Impacts of soft embankment: The design of soft embankment for creating flats serving to forest plantation should follow the following criteria:

- Only carry out at locations with relatively tight coastline segments, slight bottom slope, simple bottom topography, dominant deposition process.
- Guarantee of the exchange processes of material and energy naturally. The height of designed soft dike is not higher than the average tide levels of the proposed areas;
- Ensuring that soft dike does not cut across the canals and far from river mouths; use of environmentally friendly materials.
- Construction of bamboo fence T-shaped, length of each side is 100 m. Each bamboo fence includes staggered three units. The units are designed perpendicular to the wave direction. The height of soft embankment from the bottom is less than 1.5m; height of pile is more than > 2m. The distance between units is 25 m. Soft embankment structure consists 2 pile rows. There is a bundle of bamboo layer between 2 pile rows. Number of pile is 10 - 15 piles per 1 m of length depends on wave energy and erosion level. Width of bamboo fence is 0.4 m.
- The soft embankment is designed to ensure it is no cross and away from the stream and creek over 100 m. The soft embankment to be established in areas where previously had forest but had been eroded by wave's impact and longshore currents.

Safety of local boat transporters: Hard structure in water and/or underwater could cause serious impacts on local community who use boats and/or conduct various activities along the coastline. For the subproject related to soft and hard structures built to reduce wave energy, efforts must be made during detailed design to ensure that the structure will not cause safety risks to small boats and/or other local activities in the subproject and nearby areas. During construction and operations, safety measures (signing board, buoys, lights, etc.) will be installed and in operation at all time in area that are being used by local communities.

Impacts on coastal water and sediment transport. Construction and/or the presence of soft and hard physical structures along the coast can change water and sediment transport along the coastline and

affect water and land use in nearby area. Monitoring of water quality (biology, chemical, physical) and sediment in the subproject and nearby areas (upstream and downstream) will be conducted. Adequate consultation with local authorities and communities will also be conducted during the development and finalization of the ESMP of the subproject. The plan should be considered as an adaptive plan that can be adjusted through consultation process among key stakeholders. Given complexity of water networks (rivers, canals, and water uses) and the water users and water regime (freshwater, brackish water, saline water, floods, and droughts) in the Red River Delta (now and in the future), due attention will be given to assess and mitigate potential negative impacts of the subproject areas in Quang Ninh and Hai Phong.

Impacts of Roads: Road construction, operation, and maintenance activities may cause significant erosion and adversely affect water quality. Cutting and filling activities during road construction may disrupt subsurface hydrologic flow, and bringing water to the surface in new areas or destabilizing sensitive hill slopes which may cause slope failures. Road surfaces may allow water to flow without restriction, resulting in accelerated surface erosion, channel scouring and transport of sediment loads transport to water bodies.

Recommendations to control and prevent impacts to water quality and habitat from the construction, operation, and maintenance of roads include the following:

- Planning and design phase issues prior to road construction, include:
  - ✓ Maximize use of existing roads networks.
  - ✓ Consider future road uses at the design stage. This may include adjusting design considerations if roads are intended for longer term use beyond forestry applications.
  - ✓ Design (e.g. width, surfacing) and construct roads for the type and intensity of anticipated traffic over the long term.
  - ✓ Maximize use of temporary roads.
  - ✓ Site roads on soil with good drainage capability, emphasizing high ridge routes and avoiding low valleys when possible.
  - ✓ Design road networks in advance to minimize road length and road density. Road widths should be minimized taking into consideration safety and transport requirements.
  - ✓ Roads should be designed and sited so as not to act as dams allowing water to accumulate behind embankments.
  - ✓ Allow canopy closure over roads to maintain habitat continuity.
- Minimize cut and fill construction by following natural landscape route contours.
- Roads should not exceed a gradient of 10 percent, where possible, with 5 percent being the optimum gradient.
- Road drainage (e.g. water bars, dips, ditches and cross drains) should be constructed at appropriate intervals to drain water away from the road surface.
- Road surfaces should be shaped (e.g. convex insloped, outsloped, or crowned) to ensure water runoff into appropriate drainage channels and vegetation and to eliminate channeling in ruts.
- Road-side drains should be diverted (e.g. through use of berms, ditches, or culverts) away from the road into vegetation at regular intervals. Outflow drainage areas may benefit from use of mulch, seed, dry wells, rock aprons and other soil stabilization measures. Drains should not empty directly into watercourses, and should be capable of handling local rainfall and runoff conditions. Drains should be maintained as needed to accommodate expected flows.

- Gravel or other surfacing should be considered on steep road slopes and tight corners.
- Burying of debris in the road base should be avoided, as it may result in uneven surfaces and holes leading to erosion. Roads should be compacted prior to use.

Where construction of roads is unavoidable, recommended techniques to prevent and control impacts for roads include:

- Roads should be designed and constructed (e.g. placement of fill) to prevent or limit disruption to aquatic and terrestrial habitat and wildlife (e.g. nesting and breeding areas) in wetlands and riparian areas.
- Road approaches to the wetland should be constructed at an upward angle to minimize drainage of road runoff into the wetland.
- Landing areas should not be constructed in wetlands.
- Cross drainage (e.g. culverts, bridges, permeable road materials etc.) should be installed to minimize disruption to natural water flow through the wetland area.
- Vehicle activities should remain on firm ground, if possible, to avoid rutting. Use of low pressure equipment (e.g. machines with wide tires and/or tracks) and mats/corduroy on skid trails is preferable, and activities should be halted if rutting becomes excessive.

Annex 3(c). Guidelines for Addressing Safeguard Issues of Component 3.

1. According to the prefeasibility study (draft December 2016), *Component 3* has been designed to reduce dependence and income from forest of local people and to promote community-based management by providing investment packages (on voluntary but competitive basis) to households or community groups for livelihood development (such as agroforestry, co-management of forest-fisheries eco-tourism, smart agriculture and/or aquaculture systems, development of trademark-market, support for increase product values, commune/village development fund, etc.) as well as for small construction, upgrading, and/or repairing of small scale-productive infrastructure (cost not more than 15 billion VND/work) and services (such as improving infrastructure for development of eco-aquaculture and/or agricultural production, forestry and fisheries; construction of community house/training center, safe shelter, cold storages for preserving aquatic products, or village roads for daily transportation of local people, sign boards, etc.) in selected subproject areas. After the proposal is approved, the recipients of this component will be the subproject owner and will be responsible for preparation of all safeguard documents (ESMP, RAP, and/or EMDP) as needed and effectively implement them. Present selection criteria will be included in POM.

2. CPMU will assist (mobilize a TA) the provinces in developing livelihood models linking with forests, surveys and development of investment plans for livelihood development, development of models associated with the value chains and creating stable markets for culvitated and exploited products. The Project will also provide TA to PPMUs/CPMU during the review, approval, and monitoring the implementation of the proposals to be submitted by household, group of households, and/or local authorities and their partners during the Project implementation for possible financing by FMCRP. PPMUs will also be responsible for selection and supervision of consultants and contractors necessary for facilitating effective implementation of the livelihood models, design and construction of the selected infrastructure.

3. Specific guidelines provided in this section focus only on the likely activities that may be implemented under this component (i.e. Improved Extensive Aquaculture; Climate-smart Intensive Aquaculture; livestock production; and ecotourism). However additional guidelines and/or requirements may be provided by the WB safeguard specialist when there are other unforeseeable issues occur during implementation. Subsections below provide guidance on potential impacts and mitigation of the livelihood models that may be adopted for the FMCRP including measures for *(i)*

improved extensive aquaculture, (ii) climate-smart intensive aquaculture, (iii) diversifying agriculture and aquaculture; (iv) ecotourism development;(v) implementation of small infrastructure; (vi) other impacts; and (v) use of pesticides and/or toxic chemicals. These guidelines will be considered during the preparation of the ESMP of the subproject when the impacts are found to be moderate and/or large.

(i) Measures for Improved Extensive Aquaculture

4. Extensive aquaculture for purposes of this project refer to integrated aquaculture and mangrove systems. Subprojects will support integrated mangrove-shrimp or mangrove-clam and mollusk farming that are considered to be more environmentally sustainable aquaculture practices because it is extensive and uses less agro-chemicals (i.e. fertilisers, antibiotics) and support restoration of mangrove areas. These systems have lower environmental concerns such as effluents from the shrimp farms, disposal of the sediments in the shrimp ponds into canals and rivers need to be managed. Moreover, through component 3, the project will provide grants to support application of VietGap standards which include operational guidelines for water management systems in the subproject area will lead to more sustainable shrimp farming.

5. Where there are some environmental concerns is more specifically related to current rice-shrimp farming systems, which this project does not anticipate supporting. First, the current shrimp farming method is based on high water exchange, which would result in high accumulation of sediment in the rice farms in the long-term. Many farmers reportedly dispose of accumulated sediment back into the canals or nearby river, which would induce negative environmental impacts. Furthermore, recent introduction of exotic species and introduction of more intensive shrimp aquaculture may also lead to more pollution in the effluent of the wastewater from the shrimp farming. There are also concerns from experiences in the Mekong Delta about water management and wastewater treatment. While the water context in the project sites are different, the PPMU and its consultant should consider these findings into consideration during the review of the proposed proposal for an investment support.

(iii) Measures for Climate-Smart Aquaculture

7. There are on-going efforts to develop livelihood development models on eco-aquaculture with support to farmers to transition (where suitable) to more sustainable brackish water activities such as mangrove-shrimp, rice-shrimp, and other aquaculture activities and to implement climate smart agriculture by facilitating water use efficiency in the dry season. Livelihood programs are very important in the project delta estuary and coastal provinces as households in the transition between fresh and brackish water had lower income than those in other zones. Livelihoods of people in estuary zone are more vulnerable to freshwater availability from the upstream, to salinity intrusion from estuaries and/or adjacent shrimp farming areas and to extreme dry season freshwater shortages.

8. Providing livelihoods support measures to farmers to adapt to salinity intrusion and transition to brackish aquaculture is an important initiative. Salinity issues in the estuary areas have caused production losses to rice and high value agriculture. The transition to high value agriculture will provide many social benefits to local communities and households involved in the livelihood models. Construction of salinity control infrastructure in the past has been inflexible and locked farmers into development pathways, especially for poor and/or ethnic farmers who do not have knowledge and financial resources. It is important that support and livelihood programs are provided to these peoples with appropriate design and adequate assistance. The transition to aquaculture in the estuary areas may also be complex when the area are facing other development pressure.

9. The mangrove-shrimp and rice-shrimp are more sustainable options for aquaculture. The development of livelihood models will need to consider the potential environmental impacts of aquaculture and shrimp farming including the release of organic wastes, agro-chemicals, antibiotics, the transmission of diseases and the ecological impact on freshwater and coastal fisheries. In order to

mitigate these environmental impacts, an integrated pest management plan (IPM) program should be implemented for each applicable subproject as a part of the ESMP. In order to mitigate these environmental impacts, an integrated pest management plan (IPM) program should be implemented for each applicable subproject as a part of the ESMP. The PMF stipulates: prohibition of the use of very toxic chemicals, and provides directions and approach for IPM.

(iv) Measures for Diversifying Agriculture and Aquaculture

10. Appropriate livelihood support through diversifying agriculture and aquaculture models can strengthen the value chains and linking farmers to business and markets. The transition to high value agriculture will provide many positive social benefits to local communities and households involved in the livelihood models. To ensure sustainability the project must also consult with communities in the surrounding areas to enable all farmers to transition to alternative farming mechanisms.

11. The livelihood models for high-value agriculture (i.e. fruit trees, flowers, vegetables, mushrooms, watermelons) may require higher inputs of fertilisers and pesticides. The potential environmental impacts of aquaculture and freshwater shrimp farming including the release of organic wastes, agro-chemicals, antibiotics, the transmission of diseases and the ecological impact on endemic fish species in the subproject areas will also need to be considered. In order to mitigate these environmental impacts, an IPM program should be considered and implemented for each applicable subproject as a part of the ESMP. Surface water quality monitoring will also need to be established in the subproject area.

12. Development of livestock has been identified as an important livelihood model in the subproject areas. Potential impacts will be limited to appropriate management of manure and other wastes, odors, and nuisance to neighbors, assuming that other risks related to types and nature of the livestock and disease outbreaks, and market prices will be adequately addressed from the technical and financial aspects. For small farmers, care should be made to ensure that the social and financial risks to poor farmers will be considered. Adequate technical assistance and other supports should be provided if the technical, social, and financial risks are high.

(iv) Measures for Ecotourism Development

13. As the north-central coast has a number of beautiful beaches, water clarity, mangrove and ecosystems therefore development of new livelihood models on ecotourism is very likely. The objective of eco-tourism is to generate local employment, and sustainable finance for management of protected areas. The investment package may be used to supplement existing investments in eco-tourism in the subproject areas. However fragile, coastal ecosystem are prone to accompanying negative impacts that need mitigation.

14. To avoid negative, direct and indirect impacts, on coastal forest resources, biodiversity, non-timber forest products (NTFPs) caused by the subproject activities to enhance eco-tourism the following issues and mitigation measures will be considered: (a) issues related to illegal and wildlife trade; (b) potential damage to coral reefs, seagrass beds, and/or endanger species of animals, flora, and fauna; (c) introduction of non-native species; and (d) possible disease outbreak. Key mitigation measures may include, but not limited to, the following:

- Assess availability of infrastructure for tourism and regulate inflow of tourists as appropriate.
- Assess impact of increased tourists and accompanying demand on fuel wood from protected area, increased harvesting of selected NTFPs, or wild fruits, herbs et al for consumption and sale.
- Assess emergence of local forest, bamboo, NTFP-based household production for tourists and its impact on unsustainable harvesting.
- Assess location of tourist spots and ensure sites are not in fragile natural habitat areas.

- Undertake seasonal analysis of tourist inflow and co relate with breeding cycles of species those are attractive to tourists.
- Undertake orientation and training of local people involved in eco-tourism especially with relation to negative impacts of tourism on the environment and forest resources.
- Ensure all tourist camps are clearly marked with signage, have garbage disposal arrangements, and fire management equipment.
- Provide orientation and briefings to tourists about protected area, make available educational and awareness material in appropriate language.
- Apply ECOP to all infrastructures that will be built by the project.

(v) Measures for Implementation of Small Infrastructure

15. Mitigation of potential impacts during pre-construction and construction phase will be similar to those provided in Annex 3(a) related to small infrastructure (i.e. apply ECOP). Site-specific measures will also be needed to mitigate potential impacts during construction and operations of the facilities. If the activities are related to the use of *toxic agro-chemicals,* it is important to ensure than proper actions are incorporated into the ESMP.

(vi) Measures for Other Impacts

16. *Uncontrolled/unmanaged expansion of the models and risks for the poor:* For the subproject that involve livelihood development especially those related to aquaculture and/or forest-shrimp farming in coastal area, potential risks and/or impacts on socioeconomic condition of poor farmers as well as possible degradation of mangrove and water quality due to expansion of the activities without proper controlled and/or management should be considered. If the potential impacts are likely to be large and/or moderate, the technical assistance to be provided during the subproject design will take actions to improve knowledge and understanding of poor farmers on the potential financial risks and assist them finding a sustainable scheme and provide training. A socio-economic survey for farmers especially for the poor should also be conducted during the implementation of the subproject.

(vii) Measures for use of pesticides and/or toxic agrochemicals

17. To mitigate potential impacts as a 'good practice', the subproject owner will prepare and implement a mitigation plan aiming to increase famers knowledge on Government regulations, policies, and/or technical guidelines related to safe use (application, storage, and disposal) of pesticides and toxic agrochemicals likely to be used by farmers. This will include the application of an Integrated Pest Management (IPM) practice[32] that are appropriate for the agriculture productions (rice, shrimp, aquaculture, etc.) in the subproject area through training and other capacity building activities. The activities will be incorporated and implemented as part of the ESMP. There are many IPM programs and on-farm pilot activities aiming to reduce the use of pesticides and fertilizers with WB support project[33] therefore knowledge and implementation experience including some training manuals and/or other communications tools (radio/TV program, public materials, etc.) are available. The IPM technology being considered in Vietnam includes application of the System Rice Intensification (SRI) technology and the "3Reductions, 3Gains" or "3R3G" and "1Must, 5Reductions" or "1M5R" campaigns while there are some pilot activities related to the application of "VietGap" during

[32]IPM refers to a mix of farmer-driven, ecologically based pest control practices that seeks to reduce reliance on synthetic chemical pesticides. It involves (a) management (keeping them below economically damaging levels) rather than seeking to eradicate them; (b) relying, to the extent possible, on nonchemical measures to keep pest populations low; and (c) selecting and applying pesticides, when they have to be used, in a way that minimizes adverse effects on beneficial organisms, humans, and the environment.

[33] The Mekong Delta Water Resources Management for Rural Development Project (MD-WRMRDP or WB6) is being implemented until March 2017 while the Mekong Delta Integrated Climate Resilience and Sustainable Livelihood Project (MD-ICRSLP) is being implemented during 2016-2023.

production of shrimp, aquaculture, and other agriculture products.

18. If preparation of a pest management plan is required the following principles should be considered:

- The subproject will not finance the purchase of fertilizers, pesticides, or other toxic agrochemicals. In normal conditions, if pesticide use is considered to be the necessary option, only pesticides registered with the government and the international recognition will be used and the Project will also provide technical and economic information for the type and amount of the chemicals. The subproject will also consider other options (including the management of non-harmful chemicals) that can also reduce reliance on the use of pesticides. The measures will be incorporated into the subproject design to reduce risks related to the handling and use of pesticides by farmers.
- During the preparation of the ESMP/PMP for the subproject, the subproject owner and consultant will identify the need for training and capacity building in close consultation with the local authorities and other key stakeholders including chemical suppliers to enhance close cooperation and understanding among them. The subproject will apply IPM practices in line with the national IPM program and aquaculture/shrimp farming management programs being implemented by MARD as a means to minimize the potential negative impact of the increased use of fertilizers, pesticides, and toxic chemicals. Main activities may include training, sharing of knowledge and experience in the use of fertilizers and chemicals through research surveys, study visits, and/or selecting safe use of non-chemicals, other techniques.
- The PMP will identify the agency responsible for implementation including fund flow and reporting arrangements. DARD will be responsible for planning and implementation of PMP activities while farmers will be responsible for actively participation during the planning and implementation. CPMU will be responsible for supervision and monitoring of the ESMP including PMP activities after it has been approved by WB. The activities will be planned and implemented in close consultation with farmers, local authority, and local community organization especially women.The implementation budget will be included as part of the ESMP cost and the activities, outputs, and impacts will be monitored as part of the ESMP implementation.

19. The following policies and regulations described below will be considered:

- ***National policies and plans:*** Application of the IPM concept in Vietnam has been introduced in early 1990's. A national IPM program was prepared and implemented and a Steering Committee on IPM, chaired by a vice-Minister of MARD, was established and responsible for supervision of the program. During the period, a number of policy and regulations supporting the IMP was developed including bans and restrictions of toxic pesticides and operations of an inspection system. Since then additional measures to reduce the use of pesticides in rice production have been carried out throughout the country including the Mekong Delta. MARD policy to promote the application of the *"Three Reductions, Three Gains" or "*3R3G"[34] and the

[34] This program is locally known as *Ba Giảm, Ba Tăng* which was developed based on the concept of a crop management technology designed by the International Rice Research Institute (IRRI) to *reduce production costs, improve farmers' health, and protect the environment in irrigated rice production in Mekong Delta through the reduction on use of seeds, nitrogen fertilizer, and pesticides.* This concept was based on the research findings showing that early spraying was unnecessary as any damage from leaf-feeding insects (the prime cause of early spraying) did not affect yield. A campaign called *"No Early Spraying" (NES)* through various media was conducted with an aim to reach about 92% of the 2.3 million farmer households in the Mekong Delta and the result suggested that the number of insecticide sprays per season dropped by 70% (from 3.4 to 1.0 time/crop). The research also suggested that in Mekong Delta farmers tended to apply high seeding rates -about 200–300 kilogram per hectare (kg per ha) and nitrogen applications of around 150–300 kg per ha. PPD with

"*One Must, Five Reductions" or "1M5R"*[35] *for* rice production as well as the "VietGAP"[36] approaches for agriculture products have been implementing in many part of Vietnam.

- ***Pesticides control:*** In 1990, Vietnam officially approved and adopted the *International Code of Conduct on the Distribution and Use of Pesticides* of the Food and Agriculture Organization of the UN (FAO) and the a regulatory system was developed in line with FAO guidelines in mid 1990's. The Ordinance on Plant Protection and Quarantine was enacted in February 1993, followed in November by Decree 92/CP with regulations on pesticides management. These regulations are updated periodically and are being applied by the agencies. During 1995-97, a total of 45 pesticides were banned for use in Vietnam and 30 have been restricted (amount cannot exceed 10% of total pesticides sold in Vietnam). These include the highly toxic pesticides such as carbofuran, endosulfan, methamidophos, monocrotophos, methyl parathion, and phosphamidon. In 1998, Vietnam stopped the registration of new insecticides for leaf-folders into the country since IPM activities had shown that insecticides use against leaf-folders is unnecessary.
- Decision 193/1998/QD BNN-BVTV dated December 2nd, 1999 by MARD promulgating the regulations on quality control, pesticide surplus and new pesticide testing in order to registration in Vietnam.
- Decision 145/2002/QD/BNN-BVTV dated December 18th, 2002 by MARD promulgating the regulations on procedures for screening production, processing, registration, export and import, trading, storage and disposal, label, packaging, seminars, advertising and use of plant protection pesticides; This is the basis for GoV monitoring the use and storage of pesticides. Empty containers shall be disposed of in accordance with the manufacturer's instructions as noted on the product label or provincial instructions and recommendations. As a minimum, empty pesticide containers shall be: returned to the pesticide distributor as part of their recycling program; or triple rinsed or pressure rinsed, then altered so they cannot be reused; and disposed of in a permitted sanitary landfill or other approval disposal site.
- MARD Decision No. 1503/QD-BNN-TCTS on Good Practices for Aquaculture in Vietnam (referred to as VietGAP), May 07, 2011;Decision No. 1617/QD-BNN-TCTS giving guidelines for implementation of VietGAP for growing P. hypophthalmus), P.monodon) and P. vannamei); Government Decision 72/QĐ-TT-QLCL (March 04, 2013) assigns Vietnam Certification Centre (QUACERT) as the organization responsible for certification including for VietGAP for fruit & vegetables, tea, rice and coffee. Box A3.8 highlights key requirements for VietGap for aquaculture.

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assistance from Danida conducted a study, involving 951 farmers, showed that seeds, fertilizers, and insecticides can be reduced by 40 percent, 13 percent, and 50 percent, respectively. The NES practice was then packaged with lower seed rates and lower nitrogen use.

[35] This program built on the success on "3R3G" campaign, additional researches were carried out to demonstrate that appropriate reduction of production inputs (water, energy, seed, fertilizer, and pesticides) and post harvest-loss without reducing yield could be made and the 3 reductions should be extended to cover five reductions. This approach promotes the use of certified seed (this is considered as "*one must do")* and the application of modern technology to promote efficiency in water and energy uses and reduction of post-harvest loss. The fiver reductions therefore cover *water, energy, post-harvest loss, fertilizers, and pesticides.* Implementation of this campaign however will be more complex and require additional investment and technical assistance as well as effective cooperation among MARD agencies involving in irrigation and production managements. Following a successful demonstration in An Giang province, MARD is moving towards modernization and development of best practices for scaling up this approach in the Mekong Delta.

[36] VietGap (Vietnamese Good Agricultural Practices) is a food safety inspection program covering production activities starting from breeding to final products including storage and other related factors such as the environment, chemicals, plant protection drugs, packaging and even the working conditions and welfare of workers in the farm. The program focusing on setting (a) Standard for production technology; (b) Food safety, including measures to ensure no chemical contamination or physical contamination when harvesting; (c) The work environment aims to prevent the abuse of poor labor; and (d) Product traceability. The Vietnam Certification Centre (QUACERT) is responsible for undertaking VietGAP certification for fruit & vegetables, tea, rice and coffee.

Box A3.8 Basic principles of VietGAP for Aquaculture
• Aquaculture must ensure quality and food safety by complying with current standards and regulations of the State and provisions of the Food and Agriculture Organization (FAO) of the United Nations and the World Health Organization (WHO). • Aquaculture must ensure health and living conditions for aquatic animals by creating optimal conditions for health, reducing stress, limiting the risk of disease and maintain good farming environment in all stages of the production cycle, etc. • Aquaculture activities should be done with detail plans and not affects environment, according to the regulations of the state and international commitments. There must be evaluation of the impact on the environment of the planning, development and implementation of aquaculture. • Aquaculture should be done in a responsible way to society, respect the local community culture, strictly abide by provisions of the State and the relevant agreement of the International Labor Organization (ILO) on labor rights, not affect the livelihood of farmers and surrounding community. Aquaculture must actively contribute to rural development, brings benefits, equality and contribute to reducing poverty and enhancing food security in the locality. Therefore socio-economic issues must be considered in all phases of growing process from development and deployment of aquaculture plan.

Annex 3(d). Guidelines for Addressing Social Issues (in addition to RAP and EMDP)

1. The other social risks that may be caused by the subproject (encroachment of agricultural households in coastal forest areas and the unsanctioned use of wood from mangroves for fuel, issues of access and rights to land, social vulnerability, market risks, etc.) will also be considered and mitigation measures prepared during the preparation of the subproject ESMP.

2. This guidance aims to provide guidance on other key social issues that may be created by the subprojects (vulnerability, market risks, encroachment of agricultural households in coastal forest areas and the unsanctioned use of wood from mangroves for fuel, issues of access and rights to land) will in addition to those related to resettlement and compensation and ethnic minorities which will be addressed in more details in the subproject RAP and EMDP. The issues are related to vulnerabilities of society in Project areas and they should be considered during the preparation of ESMP of the activities/subprojects to ensure that adequate mitigation measures will be incorporated during the design of the livelihood model especially when respect to ethnic minority. The guideline was developed as a results of a recent social study related to livelihood development for addressing climate resilience and environmental vulnerability for local community in the Mekong Delta[37] as well as the SESA study being conducted in the 6 provinces of the north central provinces[38].

(i) Solving vulnerability because of selecting location

3. Using agricultural, forestry, and fishery experts' knowledge to optimize scale design of livelihood models. It ensures that components design of models could be supervise well environmental issues which may occur in order to mitigate climatic environment to local famers.

(ii) Solving social vulnerability

(a) Acceptance ability of local people to forest land assigned to community:

4. Before this, protected forest is under management of Government, so that local people do not

[37] Reference: The Regional Social Assessment study was conducted during 2014-2015 for the Mekong Delta-Integrated Climate Resilience and Sustainable Livelihood Project (MD-ICRSLP)
[38] SESA

have knowledge about forest protection, as a result forest had been become degradation and loss. Establishing integration model of agriculture, forestry and fishery, fund supporting for breeding, farming under forest canopy, and fund supporting for local community to maintain forest management are one of management measures that local people may accept assigned forest management.

(b) Acceptance ability of local people to applying new livelihood models

5. Building livelihood model supports local people to protect and maintain forest. For example, bee keepers under forest canopy realize high risks that project recommended because there is benefit chain, no permanent flowering. Similarly, vegetable farmers under VietGAP standard in coastal zone (for example in Quang Binh) realized higher risks of salamander breeding model in sand than vegetable farming.

(c) Solving market risky

6. Reducing over production by cooperating with agricultural companies: Livelihood model implementation needs a stage approach to expand the model and to expand market, and companies could have enough time to expand their market and to find new market.

(d) Diversifying models and diversifying limitation of livelihood models

7. In some activities, livelihood models which local people can select has small number, and in some aspects, project needs to operate with consultants to build more models by the time.

- Sharing experiences and lesions between locals also may be helpful to increase investment and production. For example, clean vegetable model in Dien Chau – Nghe An, they used humectants in dry season, this model can be applied in flower model on sand in Ha Tinh.

- Supporting organic certification, clean production certification (for example VietGAP) and building production brand name in order to promote and marketing.

(e) Supporting local farmers

8. Using cooperative or team work to implement livelihood model should form strategy for implementing livelihood of subproject. Forming new team works, or by current teams, farmers will have belief of effective models, in which risk will be divided to each member, especially some farmers who are afraid of risk so they are not ready to apply new adaptive model.

- It is necessary to have initial fund for livelihood model. Currently, almost poorer has demand money borrowing to invest to their business, however they do not match requirements of credit institutions, thus if there is no fund supporting, local farmers will deal with difficulty in beginning new livelihood model. As showing in results of local family consultation and local social agencies, fund supporting is the first priority.
- Recruiting experts of agriculture, fishery and forestry etc. is to support and develop techniques for cooperatives or work groups, farming support agencies and farmers.
- Unions, especially farmer union and women union, should play an important role in supporting local farmers and cooperatives, such as collecting, organizing, and agricultural training, they can support farmers that farmers can visit and supervise other models…
- Encouraging hatchery companies which have ability to produce high quality set their factories close to locations where implement well models.
- Developing tools for supporting decision make, it should have early warning of drought and flood. Serious damage from deep freezing and bloody cold in 2015 and 2016 shows that it is necessary to develop set of tool for early warning, then it can be used to announce to farmers about tree species, cattle and poultry and farmers can do their own business.

(f) Regarding to poor families without land

- Supporting livelihood to people without land within area affected by activities/subprojects need to build or expand from small scale credit, and current developing program in order to avoid increasing unfair between riches and poors.
- Encouraging agricultural companies, especially they can open their branches that can help local poor peoples. Provinces may provide free land and support tax then they can attract investment in agricultural area.

(g) Consultation and attendance of community

Extra requirements of consultation not in resettlement and environment consultation:

- Acceptance of livelihood model
- Selected plan and small credit design of livelihood model
- In detail, ideas and initiative of community in consultation meeting need to be considered in process of designing and implementing activities/subprojects, especially ideas of vulnerable people and women.
- Implementing project at community level should not just based on documents or writing format (for example indemnify or training), it should have voice records. In marine areas, local people are not well educated and number of illiteracy is high, especially women.
- Encourage agriculture program should ensure that they are implemented at right format and in time to women, because they are responsible for caring children and house work.

Annex 4 (a). Environmental Code of Practice

[Bid Specification for Construction Management and Responsibilities of Contractors]

1. The World Bank Operational Policy (OP) on Environmental Assessment (OP 4.01) requires environmental assessment (EA) of Bank-financed projects to ensure they are environmentally sound and sustainable. EA is a process of analyzing potential environmental risks and of the identification and adoption of measures to avoid or mitigate such impacts.

2. As a part of EA, the Environmental and Social Management Plan (ESMP) is a safeguards instrument that is typically used in many projects and which of the process of mitigating and managing environmental impacts throughout project implementation.

3. Environmental code of practice (ECOP) are mitigation measures for generic impacts from project activities during the construction phase and are intended to be included in the bidding documents as requirements to the construction contractor.

4. If impacts require site-specific mitigation measures that are not adequately covered in this generic ECOP, they must be addressed separately in the ESMP. This ECOP also do not cover impacts from worker camps (assuming they would not generally be needed for small urban works projects), impacts from large works (bridges, tunnels, big roads). Social impacts caused by involuntary resettlement or involving ethnic minorities are addressed in other safeguard instruments. On behalf of the subproject owner, the Provincial Project Management Unit (PPMU) is responsible for ensuring effective implementation of ECOP.

MAIN ENVIRONMENTAL AND SOCIAL ISSUES DURING CIVIL WORKS CONSTRUCTION

5. Construction activities for small works governed by this ECOP are those whose impacts are of limited extent, temporary and reversible, and readily managed with good construction practices. The environmental and social issues covered in this document are:

- Dust generation
- Air pollution
- Impacts from noise and vibration
- Water pollution
- Drainage and sedimentation control
- Management of stockpiles, quarries, and borrow pits
- Solid waste
- Chemical and hazardous wastes
- Disruption of vegetative covers and ecological resources
- Traffic management
- Interruption of utility services
- Restoration of affected areas
- Worker and public safety
- Communication with local communities
- Chance findings

VIETNAMESE LEGAL AND REGULATORY FRAMEWORK

6. There are a number of Government of Vietnam (GoV) regulations, standards, code of practices, etc. related to environmental and safety aspects that are relevant to construction activities and environmental quality. The principal ones related to issues covered by these ECOPs are listed below (not an exhaustive list):

- *Vietnamese Environment Standards*: including standards on sampling and sample preservation; analysis methods; standards on quality of air, surface water, groundwater, soils, standards on emission, waste water, standards on dumps, and standards on incinerators. These include:

  (i) QCVN 01:2009/BYT: National technical regulation on drinking water quality.
  (ii) QCVN 02:2009/BYT: National technical regulation on domestic water quality.
  (iii) QCVN 08:2008/BTNMT: National technical regulation on water surface quality.
  (iv) QCVN 09:2008/BTNMT: National technical regulation on underground water quality.
  (v) QCVN 10:2008/BTNMT: National technical regulation on water quality in coastal areas.
  (vi) QCVN 14:2008/BTNMT: National technical regulation on domestic wastewater.
  (vii) QCVN 40:2011/BTNMT: National technical regulation on industrial wastewater.
  (viii) QCVN 39:2011/BTNMT: National technical regulation on Water Quality for irrigated agriculture.
  (ix) QCVN 38:2011/BTNMT: National technical regulation on Surface Water Quality for protection of aquatic lifes
  (x) QCVN 03:2008/BTNMT: National technical regulation on permitted limit of heavy metal in land.
  (xi) QCVN 15:2008/BTNMT: National technical regulation on the pesticide residues in the soils.
  (xii) QCVN 43:2012/BTNMT - National technical regulation on sediment quality in fresh water areas.
  (xiii) QCVN 05:2013: National technical regulation on ambient air quality.
  (xiv) QCVN 06:2008: National technical regulation on hazardous substances in ambient air.
  (xv) QCVN 26:2010/BTNMT: National technical regulation on noise.
  (xvi) QCVN 27:2010/BTNMT: National technical regulation on vibration.
  (xvii) QCVN 07:2009/BTNM: National Technical Regulation on Hazardous Waste Thresholds
  (xviii) QCVN 17:2011/BGTVT: National technical regulation on Rules for Pollution Prevention of inland waterway ships.
  (xix) Decision 3733/2002/-BYT October 10, 2002: Promulgating 21 labor hygiene standards, 05 principles and 07 labor hygiene measurements

- *Basics for Safety/Construction*: Location of the disposal sites and other use purposes shall be agreed with the local authorities and all earth works shall comply with:
  (i) Law on traffic and transportation No. 23/2008/QH12
  (ii) Law on construction No. 16/2003/QH11
  (iii) Decree No. 73/2010/ND-CP on administrative penalization security and society issues
  (iv) Decree No. 12/2009/ND-CP on management of project
  (v) Decree No. 59/ND-CP on management of solid waste
  (vi) Decree No. 1338/NĐ-CP on technical guidelines for construction within weak foundation area
  (vii) Decree No. 22/2010/TT-BXD on regulation of construction safety;
  (viii) Circular No. 12/2011/TT-BTNMT on management of hazardous substance
  (ix) Decision No. 35/2005/QD-BGTVT on inspection of quality, technical safety and environmental protection;
  (x) Instruction No. 02 /2008/CT-BXD on safety and sanitation issues in construction agencies
  (xi) TCVN 5308-91: Technical regulation on safety in construction
  (xii) TCVN 4447:1987: Earth works-Codes for construction
  (xiii) Air, noise, and vibration control requirements stipulated in the TCVN4087: 1985-(Use of building plants-General requirements);

- *Chance find procedure*
  (i) Law on Cultural Heritage (2002)
  (ii) Law on Cultural Heritage (2009) for supplementary and reformation
  (iii) Decree No. 98/2010/ND-CP for supplementary and reformation

MONITORING AND REPORTING REQUIREMENTS

7. Non-compliance by the contractor could result in suspension of works, financial penalties, or other penalties, as must be clearly spelled out in the ESMP and in the contract.

8. Contractors are responsible for implementation of ECOPs. The responsibilities for monitoring ECOPs implementation are shared between the contractor, the PPMU, and the Construction Supervision Consultant (CSC). The Contractor's Work Plan should incorporate Site Environmental Management Plan, the guidelines provided in these ECOPs as well as the Environmental and Social Management Plan (ESMP) created for the sub-project. The designated Technical Officer(s) and Environmental Officer(s) of the PPMU are responsible for supervising the adherence to the agreed ESMP by the selected contractor(s). The World Bank will periodically supervise implementation activities of Bank-financed projects at least on a biannual basis.

9. At a minimum, the contractor should prepare a monthly report on adherence to ECOP which should be submitted to the CSC and to the PPMU. Project-specific or contract-specific reporting requirements are described in the ESMP. CSC is responsible for monitoring overall environmental performance of the project and submit to PPMU quarterly monitoring reports.

10. Table below identifies key issues and mitigation measures to be conducted and compliance with by the contractor. Government of Vietnam's regulations will be used to judge the level of compliance.

ENVIRONMENTAL – SOCIAL ISSUES	MITIGATION MEASURE	VIETNAM CODE/REGULATION
1. Dust generation	• The Contractor is responsible for compliance with relevant Vietnamese legislation with respect to ambient air quality. • The Contractor shall implement dust suppression measures (e.g. water spray vehicles, covering of material stockpiles, etc.) as required; • Construction vehicles shall comply with speed limits and haul distances shall be minimized. • Material loads shall be suitably covered and secured during transportation to prevent the scattering of soil, sand, materials or dust. • The Contractor shall be responsible for any clean-up resulting from the failure by his employees or suppliers to property secure transported materials. • Exposed soil and material stockpiles shall be protected against wind erosion and the location of stockpiles shall take into consideration the prevailing wind directions and locations of sensitive receptors. • Dust masks should be used where dust levels are excessive.	• QCVN **05: 2009/BTNMT**: *National technical regulation on ambient air quality* • QCVN 06:2008: National technical regulation on hazardous substances in ambient air.
2. Air pollution	• All vehicles must comply with Vietnamese regulations controlling allowable emission limits of exhaust gases. • Vehicles in Vietnam must undergo a regular emissions check and get certified named: "Certificate of conformity from inspection of quality, technical safety and environmental protection" following Decision No. 35/2005/QD-BGTVT. • There should be no burning of waste or construction materials or cleared vegetation on site. • Cement processing plants should be far from residential areas.	• **TCVN 6438-2005:** *Road vehicles Maximum permitted emission limits of exhaust gas.* • No. 35/2005/QD-BGTVT • QCVN 05:2009/ BTNMT; QCVN 06:2009
3. Impacts from noise and vibration	• The contractor is responsible for compliance with the relevant Vietnamese legislation with respect to noise and vibration. • All vehicles must have appropriate "Certificate of conformity from inspection of quality, technical safety and environmental protection" following Decision No. 35/2005/QD-BGTVT; to avoid exceeding noise emission from poorly maintained machines. • When needed, measures to reduce noise to acceptable levels must be implemented and could include silencers, mufflers, acoustically dampened panels or placement of noisy machines in acoustically protected areas. • Avoiding or minimizing transportation though or material processing near community areas.	• **QCVN 26:2010/ BTNMT:** ***National technical regulation on noise*** • **QCVN 27:2010/ BTNMT:** ***National technical regulation on vibration***
4. Water pollution	• The Contractor must be responsible for compliance with the relevant Vietnamese legislation relevant to wastewater discharges into watercourses. • Portable or constructed hygienic toilets must be provided on site for construction workers. Wastewater from toilets as	• QCVN 09:2008/ BTNMT: National Technical Standard on underground water Quality

ENVIRONMENTAL – SOCIAL ISSUES	MITIGATION MEASURE	VIETNAM CODE/REGULATION
	well as kitchens, showers, sinks, etc. shall be discharged into a conservancy tank for removal from the site or discharged into municipal sewerage systems; there should be no direct discharges to any water body. • Wastewater over standards set by relevant Vietnam technical standards/regulations must be collected in a conservancy tank and removed from site by licensed waste collectors. • Using techniques as berming or diversion during construction to limit the exposure of disturbed sediments to moving water. • Before construction, all necessary wastewater disposal permits/licenses and/or wastewater disposal contract have been obtained. • At completion of construction works, wastewater collection tanks and septic tanks shall be safely disposed or effectively sealed off.	• QCVN 14:2008/ BTNMT: National technical regulation on domestic wastewater; • QCVN 24: 2009/ BTNMT: National technical regulation on industrial wastewater; • TCVN 7222: 2002
5. Drainage and sedimentation control	• The Contractor shall follow the detailed drainage design included in the construction plans, intended to prevent storm water from causing local flooding or scouring slopes and areas of unprotected soil resulting in heavy sediment loads affecting local watercourses. • Ensure drainage system is always maintained cleared of mud and other obstructions. • Areas of the site not disturbed by construction activities shall be maintained in their existing conditions. • Earthworks, cuts, and fill slopes shall be properly maintained, in accordance with the construction specifications, including measures such as installation of drains, use of plant cover. • To avoid sediment-laden runoff that could adversely impact watercourses, install sediment control structures where needed to slow or redirect runoff and trap sediment until vegetation is established. Sediment control structures could include windrows of logging slash, rock berms, sediment catchment basins, straw bales, storm drain inlet protection systems, or brush fences. - Site de-watering and water diversions: In the case that construction activities require that work be carried out within the watercourse (e.g. culvert or bridge crossing construction, retaining wall construction, erosion protection works), the work area must be dewatered to provide for construction in dry conditions. The sediment laden water pumped from the work area must be discharged to an appropriate sediment control measure for treatment before re-release to the stream.	• TCVN 4447:1987: Earth works-Codes for construction • Decree No. 22/2010/TT-BXD on regulation of construction safety; QCVN 08:2008/ BTNMT – National technical regulation on quality of surface water • QCVN 07:2009/BTNMQCVN 43:2012/BTNMT
6. Management of stockpiles, quarries, and borrow pits	• Large scale borrow pits or stockpiles of more than 50,000 m^3 will need site-specific measures that go beyond those in these ECOPs. • All locations to be used must be previously identified in the approved construction specifications. Sensitive sites such as scenic spots, areas of natural habitat, areas near sensitive receptors, or areas near water should be avoided.	

ENVIRONMENTAL – SOCIAL ISSUES	MITIGATION MEASURE	VIETNAM CODE/REGULATION
	• An open ditch shall be built around the stockpile site to intercept wastewater. • Stockpile topsoil when first opening a borrow pit and use it later to restore the area to near natural conditions. • In cases of high risk of slope failure, disposal sites shall include a retaining wall. • If the need for new sites arises during construction, they must be pre-approved by the Construction Engineer. • If landowners are affected by use of their areas for stockpiles or borrow pits, they must be included in the project resettlement plan. • If access roads are needed, they must have been included in the environmental assessment and EMP.	
7. Solid waste	• Before construction, a solid waste control procedure (storage, provision of bins, site clean-up schedule, bin clean-out schedule, etc.) must be prepared by Contractors and it must be carefully followed during construction activities. • Before construction, all necessary waste disposal permits or licenses must be obtained. • Measures shall be taken to reduce the potential for litter and negligent behavior with regard to the disposal of all refuse. At all places of work, the Contractor shall provide litter bins, containers and refuse collection facilities. • Solid waste may be temporarily stored on site in a designated area approved by the Construction Supervision Consultant and relevant local authorities prior to collection and disposal through a licensed waste collector, for example, URENCO in urban areas or local environment and sanitation companies. • Waste storage containers shall be covered, tip-proof, weatherproof and scavenger proof. • No burning, on-site burying or dumping of solid waste shall occur. • Recyclable materials such as wooden plates for trench works, steel, scaffolding material, site holding, packaging material, etc shall be collected and separated on-site from other waste sources for reuse, for use as fill, or for sale. • If not removed off site, solid waste or construction debris shall be disposed of only at sites identified and approved by the Construction Supervision Consultant and included in the site specific measures. Under no circumstances shall the contractor dispose of any material in environmentally sensitive areas, such as in areas of natural habitat or in or close to watercourses.	• Decree No. 59/2007/ND-CP on solid waste management. • QCVN 07:2009/BTNM: National Technical Regulation on Hazardous Waste Thresholds •
8. Chemical or hazardous wastes	• Chemical waste of any kind shall be disposed of at an approved appropriate landfill site and in accordance with local legislative requirements. The Contractor shall obtain needed disposal certificates. • The removal of asbestos-containing materials or other toxic substances shall be performed and disposed of by specially trained and certified workers. • Used oil and grease shall be removed from site and sold to an approved used oil recycling company.	• Decision No. 23/2006/QD-BTNMT with list of hazardous substance • Circular No. 12/2011/TT-BTNMT on management of

ENVIRONMENTAL – SOCIAL ISSUES	MITIGATION MEASURE	VIETNAM CODE/REGULATION
	• Used oil, lubricants, cleaning materials, etc. from the maintenance of vehicles and machinery shall be collected in holding tanks and removed from site by a specialized oil recycling company for disposal at an approved hazardous waste site. • Used oil or oil-contaminated materials that could potentially contain PCBs shall follow procedures provided in the EMF to avoid any leakage or affecting workers. The local DONRE must be contacted for further guidance. • Unused or rejected tar or bituminous products shall be returned to the supplier's production plant. • Relevant agencies shall be promptly informed of any accidental spill or incident. • Store chemicals appropriately and with appropriate labeling. • Appropriate communication and training programs should be put in place to prepare workers to recognize and respond to workplace chemical hazards. • Prepare and initiate a remedial action following any spill or incident. In this case, the contractor shall provide a report explaining the reasons for the spill or incident, remedial action taken, consequences/damage from the spill, and proposed corrective actions.	hazardous substance
9. Workforce, Camps and Site Management	• Worker's camps will be located at least 200 m away from schools and health care centres and not be located on steep slopes. The workforce shall be provided with safe, suitable and comfortable accommodations and safe portable water. They have to be maintained in clean and sanitary conditions. • Site offices, worker camps, mixing stations, and workshops shall be located NOT within 100m from any water courses, 500 meters of existing residential area. • Engineers and workers shall register their temporary residence with the local authority. • Allocate officer to be the Contractor's Workplace Safety and Environment Officer responsible for environmental and safety issues including training for workers. • Septic tank toilets must be provided at all construction camp areas where there will be concentration of labor. • First aid boxes shall be provided in each construction camp site.	
10. Disruption of vegetative cover and ecological resources	• The Contractor shall prepare a Clearance, Revegetation and Restoration Management Plan for prior approval by the Construction Engineer, following relevant regulations. The Clearance Plan shall be approved by Construction Supervision Consultant and followed strictly by contractor. Areas to be cleared should be minimized as much as possible. • Site clearance in a forested area is subject to permission from Department of Agriculture and Rural Development. • The Contractor shall remove topsoil from all areas where topsoil will be impacted on by rehabilitation activities,	• Law on Environment protection No. 52/2005/QH11

ENVIRONMENTAL – SOCIAL ISSUES	MITIGATION MEASURE	VIETNAM CODE/REGULATION
	including temporary activities such as storage and stockpiling, etc; the stripped topsoil shall be stockpiled in areas agreed with the Construction Supervision Consultant for later use in re-vegetation and shall be adequately protected. • The application of chemicals for vegetation clearing is not permitted. • Prohibit cutting of any tree unless explicitly authorized in the vegetation clearing plan. • When needed, erect temporary protective fencing to efficiently protect the preserved trees before commencement of any works within the site. • No area of potential importance as an ecological resource should be disturbed unless there is prior authorization from CSC, who should consult with PMBs, and the relevant local authorities. This could include areas of breeding or feeding of birds or animals, fish spawning areas, or any area that is protected as a green space. • The Contractor shall ensure that no hunting, trapping shooting, poisoning of fauna takes place.	
11. Traffic management	• Before construction, carry out consultations with local government and community and with traffic police. • Significant increases in number of vehicle trips must be covered in a construction plan previously approved. Routing, especially of heavy vehicles, needs to take into account sensitive sites such as schools, hospitals, and markets. • Installation of lighting at night must be done if this is necessary to ensure safe traffic circulation. • Place signs around the construction areas to facilitate traffic movement, provide directions to various components of the works, and provide safety advice and warning. • Employing safe traffic control measures, including road/rivers/canal signs and flag persons to warn of dangerous conditions. • Avoid material transportation for construction during rush hour. • Passageways for pedestrians and vehicles within and outside construction areas should be segregated and provide for easy, safe, and appropriate access. Signpost shall be installed appropriately in both water-ways and roads where necessary.	• Law on traffic and transportation No. 23/2008/QH12 • Law on construction No. 16/2003/QH11 • Decree No. 22/2010/TT-BXD on regulation of construction safety
12. Interruption of utility services	• Planned and unplanned interruptions to water, gas, power, internet services: the Contractor must undertake prior consultation and contingency planning with local authorities about the consequences of a particular service failure or disconnection. • Coordinate with relevant utility providers to establish appropriate construction schedules. • Provide information to affected households on working schedules as well as planned disruptions (at least 5 days in advance).	Decree No. 73/2010/ND-CP on administrative penalization security and society issues

ENVIRONMENTAL – SOCIAL ISSUES	MITIGATION MEASURE	VIETNAM CODE/REGULATION
	• Interruptions of water supply to agricultural areas must also be avoided. • The contractor should ensure alternative water supply to affected residents in the event of disruptions lasting more than one day. - Any damages to existing utility systems of cable shall be reported to authorities and repaired.	
13. Restoration of affected areas	• Cleared areas such as borrow pits which are no longer in use, disposal areas, site facilities, workers' camps, stockpiles areas, working platforms and any areas temporarily occupied during construction of the project works shall be restored using landscaping, adequate drainage and revegetation. • Start revegetation at the earliest opportunity. Appropriate local native species of vegetation shall be selected for the planting and restoration of the natural landforms. • Spoil heaps and excavated slopes shall be re-profiled to stable batters, and grassed to prevent erosion. • All affected areas shall be landscaped and any necessary remedial works shall be undertaken without delay, including green-spacing, roads, bridges and other existing works. • Trees shall be planted at exposed land and on slopes to prevent or reduce land collapse and keep stability of slopes. • Soil contaminated with chemicals or hazardous substances shall be removed and transported and buried in waste disposal areas. • Restore all damaged road and bridges caused by project activities.	• Law on Environment protection No. 52/2005/QH11
14. Worker and public Safety	• Contractor shall comply with all Vietnamese regulations regarding worker safety. • Prepare and implement action plan to cope with risk and emergency. • Preparation of emergency aid service at construction site. • Training workers on occupational safety regulations. • If blasting is to be used, additional mitigation measures and safety precautions must be outlined in the EMP. • Ensure that ear pieces are provided to and used by workers who must use noisy machines such as piling, explosion, mixing, etc., for noise control and workers protection. • During demolition of existing infrastructure, workers and the general public must be protected from falling debris by measures such as chutes, traffic control, and use of restricted access zones. • Install fences, barriers, dangerous warning/prohibition site around the construction area which showing potential danger to public people (such as unfinished power pole foundation, high risk electrical shock areas, etc.). • The contractor shall provide safety measures as installation of fences, barriers warning signs, lighting system against	• Decree No. 22/2010/TT-BXD on regulation of construction safety • Instruction No. 02 /2008/CT-BXD on safety and sanitation issues in construction agencies • TCVN 5308-91: Technical regulation on safety in construction • Decision No. 96/2008/QD-TTg on clearance of UXO.

ENVIRONMENTAL – SOCIAL ISSUES	MITIGATION MEASURE	VIETNAM CODE/REGULATION
	traffic accidents as well as other risk to people and sensitive areas. • If previous assessments indicate there could be unexploded ordnance (UXO), clearance done by a relevant army unit.	
15. Communication with local communities	• Maintain open communications with the local government and concerned communities; the contractor shall coordinate with local authorities (leaders of local wards or communes, leader of villages) for agreed schedules of construction activities at areas nearby sensitive places or at sensitive times (e.g., religious festival days). • Copies in Vietnamese of relevant parts of these ECOPS should contained in contractor documents and of other relevant environmental safeguard documents shall be made available to local communities and to workers at the site. • Reduced playground space, loss of playing fields and car parking: The loss of amenities during construction process is often an unavoidable source of inconvenience to users in sensitive areas. However, early consultation with those affected, provides opportunity to investigate and implement alternatives. In all cases damages shall be compensated. • Disseminate project information to affected parties (for example local authority, enterprises and affected households, etc) through community meetings before construction commencement. • Provide a community relations contact from whom interested parties can receive information on site activities, project status and project implementation results. • Provide all information, especially technical findings, in a language that is understandable to the general public and in a form of useful to interested citizens and elected officials through the preparation of fact sheets and news release, when major findings become available during project phase. • Monitor community concerns and information requirements as the project progresses; • Respond to telephone inquiries and written correspondence in a timely and accurate manner. • Inform local residents about construction and work schedules, interruption of services, traffic detour routes and provisional bus routes, blasting and demolition, as appropriate. • Provide technical documents and drawings to PC's community, especially a sketch of the construction area and the EMP of the construction site. • Notification boards shall be erected at all construction sites providing information about the project, as well as contact information about the site managers, environmental staff, health and safety staff, telephone numbers and other contact information so that any affected people can have the channel to voice their concerns and suggestions.	• Decree No. 73/2010/ND-CP on administrative penalization security and society issues
16. Chance find procedures	If the Contractor discovers archeological sites, historical sites, remains and objects, including graveyards and/or individual graves during excavation or construction, the Contractor shall:	• Law on Cultural Heritage (2002)

ENVIRONMENTAL – SOCIAL ISSUES	MITIGATION MEASURE	VIETNAM CODE/REGULATION
	• Stop the construction activities in the area of the chance find. • Delineate the discovered site or area. • Secure the site to prevent any damage or loss of removable objects. In cases of removable antiquities or sensitive remains, a night guard shall be arranged until the responsible local authorities or the Department of Culture and Information takes over. • Notify the Construction Supervision Consultant who in turn will notify responsible local or national authorities in charge of the Cultural Property of Viet Nam (within 24 hours or less). • Relevant local or national authorities would be in charge of protecting and preserving the site before deciding on subsequent appropriate procedures. This would require a preliminary evaluation of the findings to be performed. The significance and importance of the findings should be assessed according to the various criteria relevant to cultural heritage; those include the aesthetic, historic, scientific or research, social and economic values. • Decisions on how to handle the finding shall be taken by the responsible authorities. This could include changes in the layout (such as when finding an irremovable remain of cultural or archeological importance) conservation, preservation, restoration and salvage. • If the cultural sites and/or relics are of high value and site preservation is recommended by the professionals and required by the cultural relics authority, the Project's Owner will need to make necessary design changes to accommodate the request and preserve the site. • Decisions concerning the management of the finding shall be communicated in writing by relevant authorities. • Construction works could resume only after permission is granted from the responsible local authorities concerning safeguard of the heritage.	• Law on Cultural Heritage (2009) for supplementary and reformation • Decree No. 98/2010/ND-CP for supplementary and reformation

Annex 4(b). Simplified Environmental Code of Practice (ECOP) for Small Works

1. This annex presents the Environmental Codes of Practice (ECOP) to be applied in the subprojects when small works are involved. The content and requirements following the WB guideline described in Annex 5 of the ESMF Toolkit.

A4.1 Objectives

2. The Environmental Codes of Practice (ECOP) is prepared to manage small environmental impacts during construction. The ECOPs will apply to manage small scale infrastructure investments subproject. ECOP will be a mandatory part of construction contract or bidding documents so that contractor complies with environmental covenants. The subproject owner (PPMU) and construction supervisors will be responsible for monitoring of compliance with ECOP and preparing the required reports.

3. There are a number of national technical regulations related to environmental, health and safety that apply to construction activities. Some of them are listed below:

Water Quality: (QCVN 01:2009/BYT, QCVN 02:2009/BYT, QCVN 08:2008/BTNMT, QCVN 09:2008/BTNMT, QCVN 10:2008/BTNMT, QCVN 14:2008/BTNMT, TCVN 5502:2003; TCVN 6773:2000, TCVN 6774:2000, TCVN 7222:2002)

Air and Soil Quality (QCVN 05:2008/BTNMT, QCVN 06:2008/BTNMT, QCVN 07:2008/BTNMT

Solid Waste Management (QCVN 03:2008/BTNMT, TCVN 6438:2001, TCVN 6696:2009, QCVN 07:2009)

Vibration and Noise (QCVN 27:2010/BTNMT, QCVN 26:2010/BTNMT, TCVN 5949: 1998)

Labor Health and Safety: Decision No.3733/2002/QĐ-BYT issued by Ministry of Healthcare dated on 10/10/2002 about the application of 21 Labor health and safety standards that concerned about microclimate, noise, vibration, Chemicals – Permitted level in the working environment

The World Bank Group Environmental Health and Safety Guidelines which available at: http://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/ifc+sustainability/our+approach/risk+management/ehsguidelines

A4.2 Responsibilities

4. The PPMU and Contractors are the key entities responsible for implementation of this ECOP. Key responsibilities of PPMU and the contractors are as follows:

(a) PPMU

PPMU is responsible for ensuring that the ECOP is effectively implemented. The PPMU will assign a qualified staff to be responsible for checking implementation compliance of Contractors, include the following: (a) monitoring the contractors' compliance with the environmental plan, (b) taking remedial actions in the event of non-compliance and/or adverse impacts, (c) investigating complaints, evaluating and identifying corrective measures; (d) advising the Contractor on environment improvement, awareness, proactive pollution prevention measures; (e) monitoring the activities of Contractors on replying to complaints; (f) providing guidance and on-the-job training to field engineers on various aspects to avoid/mitigate potential negative impacts to local environment and communities during construction.

(b) Contractor

Contractor is responsible for carrying out civil works and informs PPMU, local authority and community about construction plan and risks associated with civil works. As such, contractor is responsible for implementing agreed measures to mitigate environmental risks associated with its civil works.

Contractor is required to obey other national relevant legal regulations and laws.

Part 1 – Contractor's Responsibilities

7. This is an example and is not necessarily a full treatment of all requirements for a specific project. For example, there might be reason to have contractor deal with sexually transmitted diseases, medical and hazardous waste s (e.g., oil from vehicle or furnace repair and similar, oily rags).

Issues/Risks	Mitigation Measure
1) Dust generation/ Air pollution	• The Contractor implement dust control measures to ensure that the generation of dust is minimized and is not perceived as a nuisance by local residents, maintain a safe working environment, such as: a. water dusty roads and construction sites; b. covering of material stockpiles; c. loads covered and secured during transportation to prevent the scattering of soil, sand, materials, or dust; d. Exposed soil and material stockpiles shall be protected against wind erosion.
2) Noise and vibration	• All vehicles must have appropriate "*Certificate of conformity from inspection of quality, technical safety and environmental protection"* following Decision No. 35/2005/QD-BGTVT; to avoid exceeding noise emission from poorly maintained machines.
3) Water pollution	• Portable or constructed toilets must be provided on site for construction workers. Wastewater from toilets as well as kitchens, showers, sinks, etc. shall be discharged into a conservancy tank for removal from the site or discharged into municipal sewerage systems; there should be no direct discharges to any water body. • Wastewater over permissible values set by relevant Vietnam technical standards/regulations must be collected in a conservancy tank and removed from site by licensed waste collectors. • At completion of construction works, water collection tanks and septic tanks shall be covered and effectively sealed off.
4) Drainage and sedimentation	• The Contractor shall follow the detailed drainage design included in the construction plans, to ensure drainage system is always maintained cleared of mud and other obstructions. • Areas of the site not disturbed by construction activities shall be maintained in their existing conditions.
5) Solid waste	• At all places of work, the Contractor shall provide litter bins, containers and refuse collection facilities. • Solid waste may be temporarily stored on site in a designated area approved by the Construction Supervision Consultant and relevant local authorities prior to collection and disposal. • Waste storage containers shall be covered, tip-proof, weatherproof and scavenger proof. • No burning, on-site burying or dumping of solid waste shall occur. • Recyclable materials such as wooden plates for trench works, steel, scaffolding material, site holding, packaging material, etc. shall be collected and separated on-site from other waste sources for reuse, for use as fill, or for sale. - If not removed off site, solid waste or construction debris shall be disposed of only at sites identified and approved by the Construction Supervision Consultant and included in the solid waste plan. Under no circumstances shall the contractor dispose of any material in environmentally sensitive areas, such as in areas of natural habitat or in watercourses.

Issues/Risks	Mitigation Measure
6) Chemical or hazardous wastes	• Used oil and grease shall be removed from site and sold to an approved used oil recycling company. • Used oil, lubricants, cleaning materials, etc. from the maintenance of vehicles and machinery shall be collected in holding tanks and removed from site by a specialized oil recycling company for disposal at an approved hazardous waste site. • Unused or rejected tar or bituminous products shall be returned to the supplier's production plant. • Store chemicals in safe manner, such as roofing, fenced and appropriate labeling.
7) Disruption of vegetative cover and ecological resources	• Areas to be cleared should be minimized as much as possible. • The Contractor shall remove topsoil from all areas where topsoil will be impacted on by rehabilitation activities, including temporary activities such as storage and stockpiling, etc; the stripped topsoil shall be stockpiled in areas agreed with the Construction Supervision Consultant for later use in re-vegetation and shall be adequately protected. - The application of chemicals for vegetation clearing is not permitted. - Prohibit cutting of any tree unless explicitly authorized in the vegetation clearing plan. • When needed, erect temporary protective fencing to efficiently protect the preserved trees before commencement of any works within the site. • The Contractor shall ensure that no hunting, trapping shooting, poisoning of fauna takes place.
8) Traffic management	• Before construction, carry out consultations with local government and community and with traffic police. • Significant increases in number of vehicle trips must be covered in a construction plan previously approved. Routing, especially of heavy vehicles, needs to take into account sensitive sites such as schools, hospitals, and markets. • Installation of lighting at night must be done if this is necessary to ensure safe traffic circulation. • Place signs around the construction areas to facilitate traffic movement, provide directions to various components of the works, and provide safety advice and warning. • Employing safe traffic control measures, including road/rivers/canal signs and flag persons to warn of dangerous conditions. • Avoid material transportation for construction during rush hour. • Signpost shall be installed appropriately in both water-ways and roads where necessary.
9) Interruption of utility services	• Provide information to affected households on working schedules as well as planned disruptions of water/power at least 2 days in advance. • Any damages to existing utility systems of cable shall be reported to authorities and repaired as soon as possible.
10) Restoration of affected areas	• Cleared areas such as disposal areas, site facilities, workers' camps, stockpiles areas, working platforms and any areas temporarily occupied during construction of the project works shall be restored using landscaping, adequate drainage and revegetation. • Trees shall be planted at exposed land and on slopes to prevent or reduce land collapse and keep stability of slopes. • Soil contaminated with chemicals or hazardous substances shall be removed and transported and buried in waste disposal areas.
11) Worker and public Safety	• Training workers on occupational safety regulations and provide sufficient protective clothing for workers in accordance with applicable Vietnamese laws. • Install fences, barriers, dangerous warning/prohibition site around the construction area which showing potential danger to public people. • The contractor shall provide safety measures as installation of fences, barriers warning signs, lighting system against traffic accidents as well as other risk to people and sensitive areas. • If previous assessments indicate there could be unexploded ordnance (UXO), clearance must be

Issues/Risks	Mitigation Measure
	done by qualified personnel and as per detailed plans approved by the Construction Engineer.
12) Communication with local communities	• The contractor shall coordinate with local authorities (leaders of local communes, leader of villages) for agreed schedules of construction activities at areas nearby sensitive places or at sensitive times (e.g., religious festival days). • Copies in Vietnamese of these ECOPs and of other relevant environmental safeguard documents shall be made available to local communities and to workers at the site. • Disseminate project information to affected parties (for example local authority, enterprises and affected households, etc) through community meetings before construction commencement. • Provide a community relations contact from whom interested parties can receive information on site activities, project status and project implementation results. • Inform local residents about construction and work schedules, interruption of services, traffic detour routes and provisional bus routes, blasting and demolition, as appropriate. • Notification boards shall be erected at all construction sites providing information about the project, as well as contact information about the site managers, environmental staff, health and safety staff, telephone numbers and other contact information so that any affected people can have the channel to voice their concerns and suggestions.
13) Chance find procedures	• If the Contractor discovers archeological sites, historical sites, remains and objects, including graveyards and/or individual graves during excavation or construction, the Contractor shall: - Stop the construction activities in the area of the chance find; - Delineate the discovered site or area; - Secure the site to prevent any damage or loss of removable objects. In cases of removable antiquities or sensitive remains, a night guard shall be arranged until the responsible local authorities or the Department of Culture and Information takes over; - Notify the Construction Supervision Consultant who in turn will notify responsible local or national authorities in charge of the Cultural Property of Viet Nam (within 24 hours or less); - Relevant local or national authorities would be in charge of protecting and preserving the site before deciding on subsequent appropriate procedures. This would require a preliminary evaluation of the findings to be performed. The significance and importance of the findings should be assessed according to the various criteria relevant to cultural heritage; those include the aesthetic, historic, scientific or research, social and economic values; - Decisions on how to handle the finding shall be taken by the responsible authorities. This could include changes in the layout (such as when finding an irremovable remain of cultural or archeological importance) conservation, preservation, restoration and salvage; - If the cultural sites and/or relics are of high value and site preservation is recommended by the professionals and required by the cultural relics authority, the Project's Owner will need to make necessary design changes to accommodate the request and preserve the site; - Decisions concerning the management of the finding shall be communicated in writing by relevant authorities; - Construction works could resume only after permission is granted from the responsible local authorities concerning safeguard of the heritage.

Part 2 – Contractor's Workers Environmental Code of Conducts

8. This is an example for typical project, but for a specific project, some other requirements might be relevant. For example, washing hands protocol, or agreeing to attend STD workshops.

Do:	Do not
◆ Use the toilet facilities provided – report dirty or full facilities ◆ Clear your work areas of litter and building rubbish at the end of each day – use the waste bins provided and ensure that litter will not blow away. ◆ Report all fuel or oil spills immediately & stop the spill from continuing. ◆ Smoke in designated areas only and dispose of cigarettes and matches carefully. (littering is an offence.) ◆ Confine work and storage of equipment to within the immediate work area. ◆ Use all safety equipment and comply with all safety procedures. ◆ Prevent contamination or pollution of streams and water channels. ◆ Ensure a working fire extinguisher is immediately at hand if any "hot work" is undertaken e.g. Welding, grinding, gas cutting etc. ◆ Report any injury of workers or animals. ◆ Drive on designated routes only. ◆ Prevent excessive dust and noise	◆ Remove or damage vegetation without direct instruction. ◆ Make any fires. ◆ Poach, injure, trap, feed or harm any animals – this includes birds, frogs, snakes, etc. ◆ Enter any fenced off or marked area. ◆ Drive recklessly or above speed limit ◆ Allow waste, litter, oils or foreign materials into the stream ◆ Litter or leave food lying around. ◆ Cut trees for any reason outside the approved construction area ◆ Buy any wild animals for food; ◆ Use unapproved toxic materials, including lead-based paints, asbestos, etc.; ◆ Disturb anything with architectural or historical value ◆ Use of firearms (except authorized security guards) ◆ Use of alcohol by workers during work hours ◆ Wash cars or machinery in streams or creek ◆ Do any maintenance (change of oils and filters) of cars and equipment outside authorized areas ◆ Dispose trash in unauthorized places ◆ Have caged wild animals (especially birds) in camps ◆ Work without safety equipment (including boots and helmets) ◆ Create nuisances and disturbances in or near communities ◆ Use rivers and streams for washing clothes ◆ Dispose indiscriminately rubbish or construction wastes or rubble ◆ Spill potential pollutants, such as petroleum products ◆ Collect firewood ◆ Do explosive and chemical fishing ◆ Use latrines outside the designated facilities; and ◆ Burn wastes and/or cleared vegetation.

Annex 5. ESMP Supervision, Monitoring, and Reporting

1. In line with the ESMF implementation arrangement and monitoring and reporting, this annex provides specific forms for ESMP monitoring (A5.1) including sample forms for monitoring at project and subproject level (A5.2) and sample form for Grievance Redress Mechanism (GRM) (A5.3). These forms should be used for all subprojects to be financed by FMCRP. Training will be provided to responsible staff.

A5.1 Supervision and monitoring

2. Supervision and monitoring of ESMP implementation would encompass environmental compliance monitoring and environmental monitoring during subproject implementation as described in details below:

- Environmental compliance monitoring includes a system for tracking environmental compliance of contractors such as checking the performance of contractors or government institutions against commitments expressed in formal documents, such as contract specifications or loan agreements.
- The objectives of environmental monitoring is: a) to measure the effectiveness of mitigating actions (e.g. if there is a mitigating action to control noise during construction, the monitoring plan should include noise measurements during construction); b) To meet Borrower's environmental requirement; and c) to respond to concerns which may arise during public consultation (e.g. noise, heat, odor, etc.), even if the monitoring is not associated with a real environmental issue (it would show good faith by the Borrower). The monitoring program should clearly indicate the linkages between impacts identified in the EA report, indicators to be measured, methods to be used, sampling locations, frequency of measurements, detection limits (where appropriate), and definition of thresholds that will signal the need for corrective actions, and so forth. The cost of environmental monitoring should be estimated and included in sub-project's total investment costs. It is crucial to monitor and collect data that is useful and will actually be used. There is no value in spending money to collect data that is not properly analyzed, that is not reported or even if reported, no actions can or will be taken. It is useful to know the kinds of analysis to which the data will be subjected before collecting the data to ensure that one can do the anticipated analyses.
- Table A5.1 and A5.2 provide an example for supervision and monitoring plan that can be used.

Table A5.1 provides an example of how monitoring is structured.

Table A5.1 An example of monitoring plan

Phase	**What** parameter is to be monitored? (Note if it is against a set standard)	**Where** is the parameter to be monitored?	**How** is parameter to be monitored/ type of monitoring equipment?	**When** is parameter to be monitored/ freq of measurement or continuous?	**Responsible Party**
Pre-construction					
Construction					
Operation					
Decommissioning					

Table A5.2. An example of supervision plan

Project stages	Supervision impacts	Supervision unit	Supervision parameters	Approach, equipment	Supervision magnitude	Comparing standard/document
Preparation						

Implementation						

Completion						

A5.2 Monthly Progress Report of Subprojects/Activities

Instructions: This form will be completed and sent to CPMU every month without fail. Attach additional information as needed should the form below not provide enough space.

Progress report for the month of:_____

Subproject Name:_____

Subproject Number:_____

Village/area:_____

District:_____

Progress: (List all the subproject components and the progress to date)

Component/subproject	Description of subproject implementation to date	Remarks
1.		
2.		
3.		

Comments on Subproject Safeguard Issues:

(Report if there have been any environment and/or social problems that require the attention and assistance of the Project Director or safeguard specialist/consultants).

Problem/Issue	Comments

A5.3 Project Safeguard Reporting

Form below should be used for 6 month and/or annual reporting for the Project. Attach additional information as needed should the form below not provide enough space.

Progress report for the period of:_____

Subproject/Activity Owner:_____

Environmental and Social Progress Report Format

No	**Project investment (subproject or activity)**	**Key environmental and social issues**	**Mitigation measures taken**	**Implementation and monitoring of ESMP**	**Training & capacity-building programs implemented**	**Lessons learnt**	**Remarks**

A5.3 ***Sample grievance registration form:*** The subproject owner (PPMUs) will be responsible for implementation of the GRM process and report the results as part of the safeguard monitoring report to be submitted to CPMU and WB. It is expected that a Community Development Committee (CDC) is established to take the lead in responding to the GRM process.

Sample GRM form

Grievance Number: _____ LOCATION : District: _____ Village: _____ CDC Name: _____ NAME OF COMPLAINANT: _____ ADDRESS:_____Telephone #: _____ DATE RECEIVED:
Classification of the grievance (Check boxes) ☐ Water Use ☐ Dispute with contractors ☐ CDC formation ☐ Inter-community dispute ☐ Land acquisition and Compensation ☐ Technical/operational coordination ☐ Financial ☐ Process delays ☐ Water Quality ☐ Noise ☐ Sanitation ☐ Water Use ☐ Other (specify)_____
Brief description of the grievance:
What is the perceived cause?
Suggested action (by complainant) to address grievance:

Annex 6. Implementation Arrangements

1. This annex presents organization and responsibility of key entity related to safeguard implementation and monitoring performance. At subproject/activity level, the subproject/ activity safeguard staff of the subproject/activity owner (PPMUs) will be responsible for monitoring and monthly reporting. At Project level, the Project safeguard staff of CPMU will review the ESMF/safeguard implementation progress, take actions as necessary, and report the results as part of the Project safeguard monitoring report to be submitted to WB on a 6 months and yearly basis. The Project Steering Committee (PSC) and/or the Provincial People Committee (PPC) will be responsible respectively for taking policy actions related to safeguard issues at Project level and subproject levels. Close consultation with WB on specific issues are recommended.

(A6.1) Organization Structure for Safeguard Monitoring (see explanation in table below)

2. The Project will be implemented in Project provinces. The implementing agencies will be MARD, and the provincial People's Committees (PPCs) of the nine project provinces. In line with the Project implementation arrangement (see Box A6.1 below), the organization structure for safeguard monitoring is presented in *Figure A6.1 and Table A6.1* below.

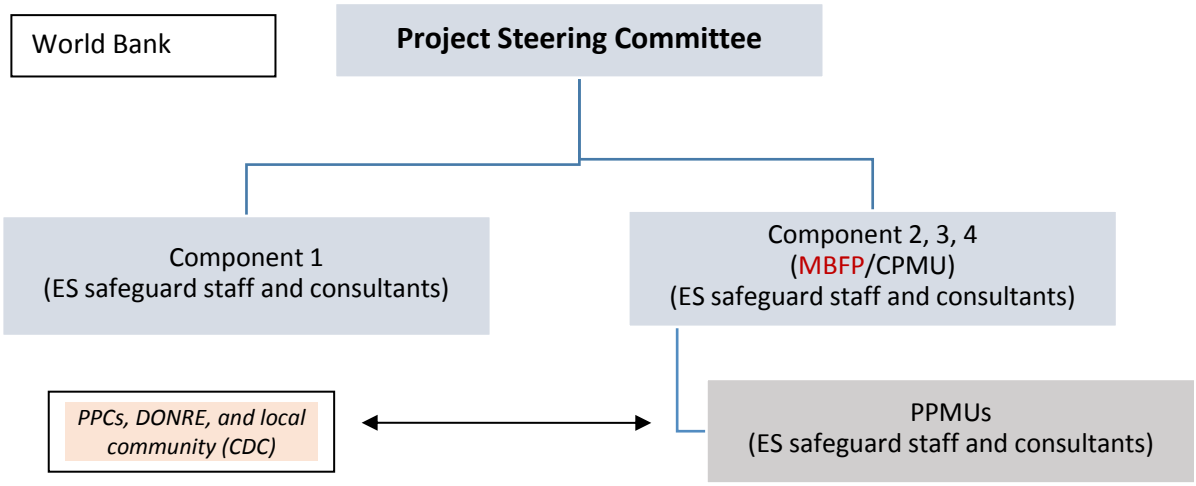


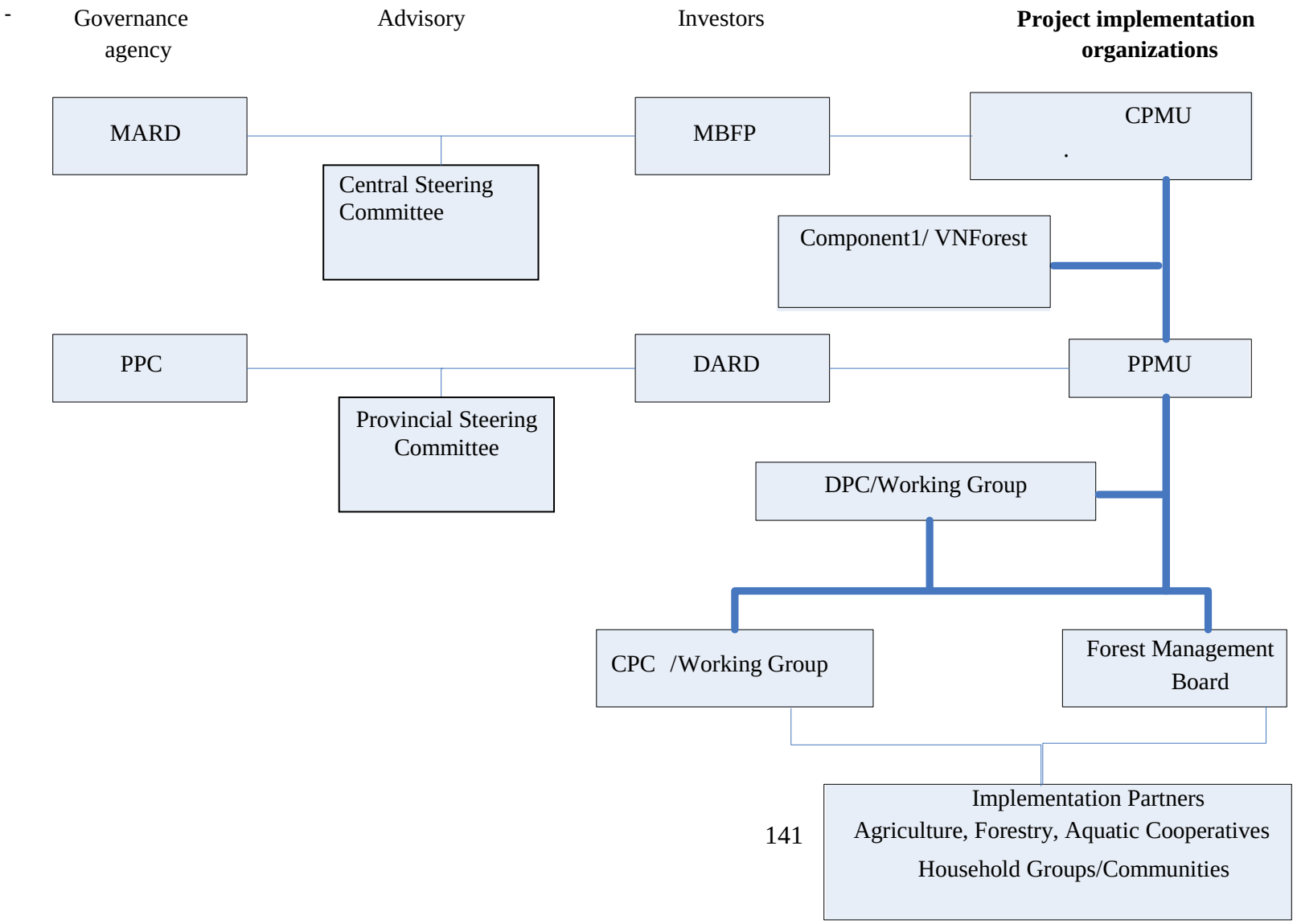
Table A6.1: Institutional Responsibilities for the Project and Subproject Safeguard Implementation

Community/ Agencies	Responsibilities
Project Implementing Agency (IA) and CPMU (The IA means MARD CPMU here means the PMU of VNForest of MARD, CPMU of MARD, and PPMUs of the provinces)	- The IA will be responsible for overseeing the Project implementation including ESMF implementation and environmental performance of contractors. - CPMU, representative of the IA, will be responsible for monitoring the overall Project implementation, including environmental compliance of the Project. CPMU will have the final responsibility for ESMF implementation and environmental performance of the Project during the construction and operational phases. - CPMU will: (i) closely coordinate with local authorities in the participation of the community during project preparation and implementation; (ii) monitor and supervise ESMP implementation including incorporation of ESMP into the detailed technical designs and bidding and contractual documents; (iii) ensure that an environmental management system is set up and functions properly; (iv) be in charge of reporting on ESMP implementation to the IA and the World Bank. - In order to be effective in the implementation process, CPMU will establish an Environmental and Social Unit (ESU) with at least two safeguard staff to help with the environmental aspects of the Project.

Community/ Agencies	Responsibilities
Environmental and Social Unit (ESU) under CPMU	- The ESU is responsible for monitoring the implementation of the World Bank's environmental safeguard policies in all stages and process of the Project. Specifically, this unit will be responsible for: (i) screening subprojects against eligibility criteria, for environment and social impacts, policies triggered and instrument/s to be prepared;(ii) reviewing the subproject EIAs/EPPs and EIAs/ESMPs prepared by consultants to ensure quality of the documents; (iii) helping PPMU/CPMU of VNForest incorporate ESMPs into the detailed technical designs and civil works bidding and contractual documents; (iv) helping CPMU incorporate responsibilities for ESMP monitoring and supervision into the TORs, bidding and contractual documents for the Construction Supervision Consultant (CSC) and other safeguard consultants (SSC, ESC, IMA, and EMC) as needed; v) providing relevant inputs to the consultant selection process; (v) reviewing reports submitted by the CSC and safeguard consultants; (vi) conducting periodic site checks; (vii) advising the CPMU on solutions to environmental issues of the project; and viii) preparing environmental performance section on the progress and review reports to be submitted to the Implementing Agency and the World Bank.
PPMUs and PMU of VNForest	- As the subproject/activity owner, PPMU/PMU of VNForest is responsible for implementation of all the ESMP activities to be carried out under the Project, including fostering effective coordination and cooperation between contractor, local authorities, and local communities during construction phase. PPMU/PMU of VNForest will be assisted by the environmental staff, safeguard consultants, and CSC/or field engineer.
Construction Supervision Consultant (CSC) and/or Field Engineer	- The CSC will be responsible for routine supervising and monitoring all construction activities and for ensuring that Contractors comply with the requirements of the contracts and the ECOP. The CSC will engage sufficient number of qualified staff (e.g. Environmental Engineers) with adequate knowledge on environmental protection and construction project management to perform the required duties and to supervise the Contractor's performance. - The CSC will also assist the PPMUs/PMU of VNForest in reporting and maintaining close coordination with the local community.
Contractor	- Based on the approved environmental specifications (ECOP) in the bidding and contractual documents, the Contractor is responsible for establishing a Contractor ESMP (CESMP) for each construction site area, submit the plan to PPMUs/PMU of VNForest and CSC for review and approval before commencement of construction. In addition, it is required that the Contractor get all permissions for construction (traffic control and diversion, excavation, labor safety, etc. before civil works) following current regulations. - The Contractor is required to appoint a competent individual as the contractor's on-site Safety and Environment Officer (SEO) who will be responsible for monitoring the contractor's compliance with health and safety requirements, the CESMP requirements, and the environmental specifications (ECOP). - Take actions to mitigate all potential negative impacts in line with the objective described in the CESMP. - Actively communicate with local residents and take actions to prevent disturbance during construction. - Ensure that all staff and workers understand the procedure and their tasks in the environmental management program. - Report to the PPMUs/PMU of VNForest on any difficulties and their solutions. - Report to local authority and PPMUs/PMU of VNForest if environmental accidents occur and coordinate with agencies and keys stakeholders to resolve these issues.
Independent Environmental Monitoring Consultants (IEMC)	- IEMC will, under the contract scope, provide support to CPMU/PPMUs to establish and operate an environmental management system, offers suggestions for adjusting and building capacity for relevant agencies during project implementation and monitor the CESMP implementation in both construction and operation stages. IEMC will also be responsible to support CPMU/PPMUs to prepare monitoring reports on ESMP implementation. - The IEMC will have extensive knowledge and experience in environmental monitoring and auditing to provide independent, objective and professional advice on the environmental

Community/ Agencies	Responsibilities
	performance of the Project.
Local community	- Community: According to Vietnamese practice, the community has the right and responsibility to routinely monitor environmental performance during construction to ensure that their rights and safety are adequately protected and that the mitigation measures are effectively implemented by contractors and the CPMU/PPMUs/PMU of VNForest. If unexpected problems occur, they will report to the CSC and/or CPMU/PPMUs/PMU of VNForest.
Social organizations, NGOs and civil society groups	- These organizations could be a bridge between the PPC/DPC, communities, Contractors, and the CPMU/PPMUs/PMU of VNForest by assisting in community monitoring. - Mobilizing communities' participation in the subproject, providing training to communities and Participating in solving environmental problems, if any.
Province and District People's Committees (PPCs/DPCs), Provincial DONRE	- Oversee implementation of subprojects under recommendations of DONRE and PPMU/PMU of VNForest to ensure compliance of Government policy and regulations. DONRE is responsible for monitoring the compliance with the Government environmental requirements.

Box A6.1 Project Institutional and Implementation Arrangements



- MARD will be the primary executing agency for the project. MARD has extensive experience in implementing IDA-financed projects since 1995. MARD will work in close collaboration with relevant Ministries and agencies to implement the project. Project implementation will be guided by a Project Steering Committee (PSC), consisting of, at the central level, representatives of key Ministries such as MPI, MOF, MONRE, OOG, Provincial People's Committees and others as relevant, who will be responsible for facilitating the coordination among the key stakeholders, providing guidance, and ensuring alignment with the national policy framework.
- MARD has been assigned by the government as the project owner and will be responsible for overall implementation, management, and coordination of the project. The Ministry has experience implementing various Bank-financed projects, along with those financed by other partners in the agriculture sector in general and in the forest sector in particular, including the Asian Development Bank, JICA, KfW, GiZ and other bilateral donors, and so is familiar with Bank procedures and policies. MARD has assigned the Management Board for Forestry Projects (MARD MBFP) in Hanoi to be responsible for overall implementation and management of the project, and will be the project owner of the activities to be executed at the central level, including technical assistance for the entire project; capacity building, procurement of goods and equipment for provinces; executing the activities involving more than one province and requiring complicated expertise. MBFP is responsible to coordinate with all stakeholders including donors, ministries and central agencies and provinces throughout the project implementation, supervising and monitoring the investment activities at provinces as mandated by public investment regulations. For these activities, MARD will use existing resources to establish a CPMU under the MBFP and create an advisory group comprising of agriculture, water, forestry, and aquaculture specialists from technical departments, and related research institutes (this last part is still under discussion). Component 1 is under the implementation responsibility of Vietnam Forest Administration (VNForest).
- The CPMU, assisted by the advisory group, is responsible to work with and assist the project provinces to implement the project in accordance with the project design. CPMU is responsible for the preliminary review and quality check of the provinces' procurement and work plans before they are submitted to the Bank. In addition, the CPMU will be responsible for the overall project level administration, including oversight of procurement, FM, M&E, safeguards compliance and communications. (see Figure A7.1).
- **Provincial level.** Subprojects under Components 2 and 3 will be implemented by PPMUs in the respective provinces. The Provincial People's Committee (PPC) will appoint an existing PPMU under DARD to be the implementing agency (IA). At each project province, a Provincial Steering Committee will be appointed comprising representatives of provincial Departments such as DPI, DOF, DONRE and District People's Committees who will be responsible for facilitating the coordination among the key stakeholders, providing guidance for project implementation in its respective province.
- **The PPMU will be in charge of day-to-day implementation activities** including (a) consolidating the investment plan of the province; (b) preparation of detailed technical engineering design, safeguards mitigation documents, implementation, and Procurement Plan; (c) implementation of fiduciary (procurement and FM) and safeguards activities at the subproject level; (d) operation and maintenance of the project account; and, (e) M&E of subproject implementation. Each of the PPMUs will be fully staffed with qualified and experienced staff in all areas particularly on fiduciary and safeguards aspects.
- **With the high level of decentralization, most of the activities on procurement, FM and disbursement will be done by PPMUs** with implementation activities being carried out at district and commune levels. A District Support Group (TBC) will be created with members from district

technical sections working on the part-time basis to assist the implementation at district level.

- **At commune level, with the aim of the project being the establishment of coastal protection forests at project communes and improvement of local people's livelihoods, the role of local people and commune authorities is critical in project implementation as well as sustaining the results.** Commune Forest Board (CFB) will be established at each of the project communes and will be tasked with signing contracts for forest plantation and protection with the household groups/communities (*need to check legal basis for CFB to sign contract...*) and supporting the livelhoods planning and implementation at commune. CFB members include selected staff the communes (TBC) and working on the part-time basis.
- **VNForest under MARD is the executing agency for Component 1 of the project.** With the state management role being to provide advice to the GOV and MARD on the policy issues in the Forest Sector, VNForest is best placed to implement the coastal forest related policies and those relevant to the sector restructuring. VNForest has appointed staff to be member of the project preparation team and will maintain adequate human resources for project implementation. VNForest will coordinate with CPMU and other technical departments and research institutes of MARD according to their mandates to implement the planned activities under Component 1.
- **Project oversight.** A Central PSC will be established and comprise representatives from MONRE, MARD, MPI, PPCs, MOF, OOG, and the State Bank of Vietnam. The PSC will organize meetings to review the project implementation, provide policy guidance, and assist in coordination on a need basis. Provincial PSC provides project implementation oversight at provincial level.
- **Technical oversight.** MARD CPMU will (a) provide technical review of provincial investment plans/proposals, consolidating and monitor these plans and (b) extend TA to DARDs, when required, to support implementation at provinces. The CPMU will include technical specialists from various technical departments including forestry, aquaculture, water, climate change and environment, as needed.

Component 4 will provide necessary support to project implementation. The CPMU under MARD is responsible for overall implementation and coordination. In addition to ensuring that the project is implemented in compliance with the technical and safeguard frameworks, the CPMU will be responsible for overall project level administration, including procurement, FM, M&E, and communications. The CPMU will include a director and will be supported by, at a minimum, the following specialists in: (a) forestry; (b) aquaculture; (c) environment; (d) social; (e) procurement; (f) FM; (g) M&E; and (h) communications.

Annex 7. Summary of ESMF Consultations

FIRST ESMF CONSULTATION

1. Main objectives of the first round consultation were to inform about the project concept, the potential impacts on local environment and communities, and the proposed plan to prepare safeguard documents ESMF to mitigate potential negative impacts that may occur during implementation as well as to collect information on the ground and listening to their concerns and suggestions.

Consultations were held on the general design of the project and the potential types of subprojects at the commune and district level. In addition, the findings of a preliminary assessment of potential impacts from proposed or potential future types of subprojects was shared with the participants. More specific impacts will be identified in detail during project implementation once the specific subprojects to be financed have been identified.

In the process of public consultation, the participants expressed their support for the potential investment activities that would address long-term concerns of the local communities to ensure enhanced resilience of coastal areas and increase incomes and improve livelihoods of coastal communities within the project provinces thereby reducing the pressure on forests. Besides, they have also expressed their concern about the project management methods, they are keen to manage and protect the forest after the project ends, and want measures to minimize the impact of the implementation phase projects such as planting, silviculture facilities. And in addition, the environmental consultants have conducted consultation with vulnerable peole such as poverty households, single parent households, households with main labor is women, ethnic minorities as well as part of the preparation of the ESMF.

2. The consultants on the environmental and social frameworks, the Board of Management of Forestry Projects have done the consultations at provincial and potential district, potential community levels and with communities at the potential commune.

Provincial level:

Venue: Meeting-Hall of Provincial People Committee at Hai Phong city, Quang Ninh, Thanh Hoa, Nghe An, Ha Tinh, Quang Binh, Quang Tri and Thua Thien Hue provinces.

Time: Quang Ninh: (19/8/2016), Hai Phong (Ngay 20/9/2016), Thanh Hoa (8/9/2016), Nghe An (12/9/2016), Ha Tinh (10/9/2016), Quang Binh (12/9/2016), Quang Tri (10/9/2016) and Thua Thien Hue (7/9/2016).

Participants:

- Representatives of DARD, MBFP, DORE, Provincial FPD or Provincial Forestry Department, Management board for protection forest.
- Representatives of CSOs (women's associations, farmers' associations, fatherland front).
- Representatives of ethnic department
- Representatives of MBFP, MARD
- Consultant: Vietnam - Germany Center for Cooperation in Science and Technology, Vietnam - Germany Friendship Association.

General recommendation: *in general, the follows were agreed in the provinces:*

- Leaders of provinces, leader of DARD and also leaders of district divisions, leaders of other organizations have been agreed with project advocatory.

- The scale and scope of the project at the small levels, negative impacts on the environment resources or social issues that resulted from planned project activities under components 2 and 3 are partial, immediate and not significant, it can completely be minimized if it would be done properly base on social and environmental protection plans.
- Within activities under Component 3, it is recommended that the investors should have to organize training courses for any proposed livelihood activities whether they are agriculture, forestry and fishing integrated models for ethnic minority people in Quang Ninh and other people living in the project sites of all the provinces.
- Agree with the reducing impact measures suggested to mitigate the potential environmental impact of the project

District level:

Venue: Meeting-Hall of district People Committee at potential districts: Tien Yen, Mong Cai (Quang Ninh), Do Son (Hai Phong), Tinh Gia (Thanh Hoa), Dien Chau (Nghe An), Thach Ha (Ha Tinh), Quang Ninh (Quang Binh), Quang Ninh (Quang Tri), Quang Đien, Phu Loc (Thua Thien Hue).

Participants:

- Representatives of district authorities, authorities of related areas to the project.
- Representatives of district divisions such as ethnic, agro-forest and fishery, resources and environment management.
- Representatives of CSOs (women's associations, farmers' associations, fatherland front)
- Representatives of vulnerable communities
- Representatives of MBFP, MARD
- Consultant: Vietnam - Germany Center for Cooperation in Science and Technology, Vietnam - Germany Friendship Association.

Consultation Results:

- Leaders of the district and staffs of district divisions such as agriculture - forestry and fisheries, labor, war invalid and social division, resource and environment management division, and CSOs (women's associations, farmers' associations, fatherland front) agreed with proposed Project.
- The scale and scope of the project at the local levels were compared with other similar projects implemented at the district level that were sponsored by the Vietnam Central Government. It was agreed that the potential negative impacts on the environment resources or social issues that resulted from the proposed types of project activities under Components 2 and 3 are partial, immediate and not significant, it can be completely minimized if it would be done properly base on social and environmental protection plans
- The district plays a monitoring role and would also assist with promoting investors and ensuring they to strictly abide by measures to reduce negative impacts. All localities have proposed that it should have to make a rule to sanction or even stop contract with the contractor if they do not comply with the commitments.
- Local authorities have agreed to create favorable conditions for maximum support to the project such as ground preparation work for expected subprojects, make sure to comply with the policies of the Central Government and the donors.
- Agreed to establish cross-sectoral management committee with the participation of local communities in monitoring on implementation of environmental protection plan that would be conducted by the contractors.

Communal level:

Time: 9/2016

Venue: Meeting-Hall of comunal People Committee at potential communes: Dong Rui, Van Ninh (Quang Ninh), Dai Hop, Bang La (Hai Phong), Xuan Lam, Hai Ninh (Thanh Hoa), Dien Ngoc, Dien Thanh (Nghe An), Thach Hai, Thach Khe (Ha Tinh), Gia Ninh, Hien Ninh (Quang Binh), Gio My, Trung Giang (Quang Tri), Quang Cong and Lang Co town (Thua Thien Hue).

Participants:

- Representatives of MBFP, Representatives of DARD, DONRE, Provincial FPD, Ranger Division, Management Board for protection forest.
- Representatives of district and commune and authorities of the localities related to the project
- Representatives of CSOs (women's associations, farmers associations, fatherland front)
- Representatives of vulnerable communities
- Consultant: Vietnam - Germany Center for Cooperation in Science and Technology, Vietnam - Germany Friendship Association.
- The total number of consulted participants were 448 people, including 65 people in Quang Ninh, 46 people in Hai Phong, 45 people in Thanh Hoa, 50 people in Nghe An, 60 people in Ha Tinh, 63 people in Quang Binh, 63 people in Quang Tri, and 56 people in Thua - Thien Hue.

Meeting content:

- MBFP and environment consultant introduced: (a) objectives of the project, (b) main activities and list of the proposed project works, (c) potential environment impacts and mitigation measures, and (d) introduction of an additional study if any.
- The project activities covered in the public consultation, includes:
    - Supporting, implementing activities to re-organize the forestry.
    - Planned activities for supporting, implementing, restoring and development activities for coastal forest: new planting, enrichment planting, , nursery gardening, protection and management coastal forest.
    - Improving, preparing activities for potential works at coastal facilities.
    - The mechanism for supporting livelihood activities that would reduce pressure on the forest and contribute to new rural development.
    - Measures for management, monitoring, operation and evaluation of the project.
- Summary of the consultation comments

Agreement of the participants

- 100% of meeting participants supported the Project implementation and also knowledge benefits coming from the Project, such as:
    - Strengthening tolerance and damages of extreme weather, sea level rise;
    - Possible increase on income and improve livelihoods that are depending on coastal forest.
    - Strengthening safety of sea dyke, river dyke
    - Possible increase on aquatic resources.

<u>On the potential subproject's impact on local environment:</u> based on the proposed design and potential subprojects:

Quang Ninh province:

- It was expected that the proposed activities will not negatively affect on the Dzao ethnic communities living there; the Dzao communities living in the potential subproject sites will not be resettled by proposed subproject activities.

- The expected construction works will be small scale and will not be located in or near sensitive areas so that they will not create negative impact on the local environment.
- The planned subprojects will not require any land acquisition.

Hai Phong City:

- The potential subproject activities will not create negative impact to land use planning at local level.
- No ethnic minority group are expected to be living in the potential subproject area.
- The construction activities such as building watchtowers and silviculture paths as well as the operation of the vessels will not affect local environment.

Thanh Hoa province:

- The activities of the potential subproject will not create negative impact on local environment.
- There is no resettlement, no ethnic minority group living in and around the project sites.
- The construction works associated with potential subprojects are expected to be small and will not create negative impact to local environment or to local communities.

Nghe An province:

- The activities of the project are not expected to create negative impact to the local environment or to the local communities.
- The mangrove forest just after planting could be affected by movement of the vessels. However, this trouble would be resolved by planting trees at ages of 2-3 years and height of 1.5-2m.
- No land acquisition is expected for the project and no ethnic minority group is living in the project area.
- High risk of UXO resulted from the war in the past.

Ha Tinh province:

- The activities of the project are not expected to negatively affect cultivated land, no land acquisition and no resettlement of households is expected.

Quang Binh province:

- It is not expected that the project will involve any land acquisition, no ethnic minority group living in or surround the proposed project sites.
- The area proposed for planting activities does not overlap with other projects.
- Very high risk of UXO resulted from the war in the past.

Quang Tri province:

- It is not expected that the project will involve any land acquisition, no ethnic minority group living in or surround the proposed project sites.
- Very high risk of UXO resulted from the war in the past.

Thua Thien Hue province:

- No land acquisition is expected, no ethnic minority group living in or surround the proposed project sites.
- The coastal planning area proposed for forestation does not overlapped to the other project.
- Very high risk of UXO resulted from the war in the past.

Recommendation of the communities from the subproject sites:

- Requiring the project manager to serious implement all mitigation measures when the project is implementing.
- Requiring the subproject manager to ensure timely project implementation so that the project will contribute to improvement on the overall local landscape as well as on the resilience of coastal

forests.

- Project manager needs to comply with the measures to reduce the negative impact caused by the activities of the project during implementation.
- Entrusting the local communities to conduct forest management and protection (groups of households, with the participation of the local authorities).
- Representatives of the leaders of provinces Thanh Hoa, Nghe An, Ha Tinh, Quang Binh, Quang Tri, Thua - Thien Hue recommended clearance of UXO from the war in the new planting or additional planting areas. Representatives of the leaders of Quang Ninh province and Hai Phong City recommended that the clearance of UXO in their area is not necessary, but if funding is available it should be made to ensure safety.

Conclusion:

- All of the participants completely agreed with the proposed investment and the activities of the Project.
- The potential negative impacts of the proposed subproject will be assessed in more details when the project sites are confirmed and the mitigation measures will be prepared and implemented as appropriate. The Project will bring enormous benefits to the local communities including improved marine resources, support economic development, and augment resilience.
- Project manager needs to accelerate the project's implementation and needs to strictly implement measures to minimize the negative impact when subprojects are implemented.

SECOND ESMF CONSULTATION

Consultations were held to obtain comments and feedback on the draft ESMF. The second round consultation confirmed stakeholders' agreement to the proposed activities and mitigation measures described in the draft ESMF which provided more details on project activities and mitigation measures. The findings of assessment of potential impacts from proposed or potential subprojects, mitigation measures, as well as procedures for screening, review and approval of the future subprojects during implementation were shared with the participants. More specific impacts will be identified in detail during project implementation once the subprojects to be financed have been identified.

I. HAI PHONG CITY

1.1. Bàng La Commune, Đồ Sơn District, Hải Phòng City

1.1.1. Venue: The Hall of Bang La CPC, Do Son District, Hai Phong City

1.1.2. Time: started at 8h30' on Dec 13, 2016

1.1.3. Consultation results:

a) Comments by the representatives of social and political organizations, socio-professional organizations and residential groups.

- The report has fully identified and evaluated the impacts of the project on the environment and local society and proposed measures to prevent and mitigate fully negative impacts.
- They recommended the project owners to comply with the mitigation measures proposed to ensure environmental safeguards in the locality.
- The implementation of proposed project activities will not affect the customs and habits of the communities in the locality.

b) Comments from the communities: based on the proposed design and potential subprojects:

- The proposed activities of the project will not affect the natural environment and local society.

When the project is implemented, it will have huge positive impacts to the locality. For example, the sea dikes are protected, fishery resources are increased and so on.

- The proposed activities of the project will not affect the customs and habits of the local communities.
- If the negative impacts of the project occur, they are minor, and the project has specific measures to mitigate, prevent those impacts with high feasibility.
- The proposed sub-projects will not have land acquisition in construction of silviculture infrastructure and other coastal infrastructure. The local people will create favourable conditions to ensure that the construction process takes place smoothly.
- The Project should prioritize the local people to participate in forest plantation activities and participate in the implementation monitoring of the project activities in order to ensure its expected objectives.
- The communities asked for an early implementation of the project activities to improve the system of local sea and river dykes in good response to climate change.
- The proposed project activities must not overlap with the activities of other projects that the communities know.

1.2. Đại Hợp commune, Đồ Sơn District, Hải Phòng City

1.2.1. Venue: The Hall of Dai Hop CPC, Do Son District, Hai Phong City

1.2.2. Time: started at 8h30' on Dec 13, 2016

1.2.3. Consultation results:

a) Comments by the representatives of social and political organizations, socio-professional organizations and residential groups

- - The proposed activities of the project are practical in enhancing the resilience of the coastal areas.
- The project has fully identified and evaluated the potential impacts of the proposed project activities on the natural environment and the society. The project has also proposed measures to reduce and prevent the possible negative impacts appropriately and feasibly.
- The project must not encroach on the local historical and religious monuments. The project must not affect the customs and habits of the local communities.
- It is recommended that the project needs to implement early and fully the mitigation measures.

b) Comments from the communities: based on the proposed design and potential subprojects:

- The proposed activities of the project are in the small scales, and they are only upgraded or renovated so they do not have impacts on environment. Favourable conditions are ensured by the local communities for the construction activities on schedule to form a complete system and then enhance the coastal resilience.
- The project does not encroach on the historical monuments, have impacts on the local customs and habits.
- The proposed mitigation measures are adequate and highly feasible.
- It is recommended that the project owner gives specific criteria for the selection of households engaged in livelihood support activities, prior to local poor households.
- The local communities also asked that the project activities are early implemented to generate benefits to the local people sooner.

II. QUANG NINH PROVINCE

2.1. Van Ninh Commune, Mong Cai City, Quang Ninh Province

2.1.1. Venue: The Hall of Van Ninh CPC, Mong Cai City, Quang Ninh Province
2.1.2. Time: started at 8h30' on Dec 14, 2016

2.1.3. Consultation results:

a) Comments by the representatives of social and political organizations, socio-professional organizations and residential groups.

- The project's proposed implementation sites are not in presence of ethnic minority communities, the project activities do not affect the natural environment and local society.
- The livelihoods of the local people in the commune are mainly from agriculture and forestry production. Therefore, if the project supports the implementation of value chains, it is very meaningful.
- The project has proposed measures to mitigate the potential negative impacts because the project has high feasibility.
- The communities asked the project owner that when the activities of upgrading and renovating coastal infrastructure are implemented, there are required to develop environmental protection plan in accordance with regulations on environmental protection.

b) Comments from the communities: based on the proposed design and potential subprojects:

- Residential communities fully support the project activities. The proposed project activities will not affect the livelihoods of the local people.
- The construction activities of proposed coastal infrastructure do not need land acquisition, relocation of graves. Therefore, these activities do not have impacts on the society.
- The communities recommended that the project owner needs to have specific criteria when the project conducts livelihood supports to ensure long-term benefits for local people.
    - It is recommended that all construction plans, repairing coastal infrastructure works of the project need to be publicly disclosed so that the local people get this information and participate in the monitoring process to ensure the quality of works.

2.2. Dong Rui Commune, Tien Yen district, Quang Ninh Province

2.2.1. Venue: The Hall of Dong Rui CPC, Tien Yen District, Quang Ninh Province
2.2.2. Time: started at 8h30' on Dec 14, 2016
2.2.3. Consultation results:

a) Comments by the representatives of social and political organizations, socio-professional organizations and residential groups.

- The project must not overlap with other projects that is going to be implemented in the commune.
- There is the presence of the Dao ethnic minority group in the commune. However, the proposed activities of the project will not affect the customs and habits of the Dao people.
- It is recommended that the project owner develop criteria for enabling the local people to participate in the eco-tourism model which increases the income for the local people.

b) Comments from the communities: based on the proposed design and potential subprojects:

- Due to the local people's small agricultural land, their livelihoods mainly depend on fishery resources under the forest canopy. Therefore, the proposed activities of the projects implemented in the commune are very practical.
- The proposed activities of the project will not adversely affect the environment. However, the

project owner still has to fully implement the mitigation measures as mentioned in the report and the information of the project need to be publicly disclosed to the local people.

- The project needs to have priority over the local people in participation of forest plantation, tending, management and protection.
- It is recommended that the project owner discloses publicly the project implementation plan in the commune so that the local people get the information and participate in the monitoring process.

III. THANH HOA PROVINCE

3.1. Hai Ninh Commune, Tinh Gia district, Thanh Hoa Province

3.1.1. Venue: The Hall of Hai Ninh CPC, Tinh Gia District, Thanh Hoa Province

3.1.2. Time: started at 8h30' on Dec 15, 2016

3.1.3. Consultation results:

a) Comments by the representatives of social and political organizations, socio-professional organizations and residential groups.

- The project was evaluated and proposed measures to mitigate the adverse impacts in suitable and feasible maners.
- The project is not expected to involve land acquisition for construction, renovation of coastal infrastructure works. However, if land acquisition happens, the local authorities will use the local budget for the land acquisition compensation.
- The proposed activities of the project do not adversely affect the natural environment and the local society.

b) Comments from the communities

- The agricultural land in the commune is scarce and the local people's livelihoods depend mainly on off-shore fishery exploitation. Therefore, the project owner is asked to have a good mechanism to improve the livelihoods of local people, especially the elderly, the people losing their working capacity.
- The local communities requested that the project owner conducts fully mitigation measures mentioned in the report.
- When assigning the right for the local communities and household groups for forest management, the project owner needs to have specific criteria to ensure the benefits of other people when they exploit natural resources under the forest canopy.
- Asking priority projects use local labor to participate in the activities of the project. To request all non-construction projects at night to upgrade items, repair coastal infrastructure.

3.2. Xuan Lam Commune, Tinh Gia District, Thanh Hoa Province

3.2.1. Venue: The Hall of Xuan Lam CPC, Tinh Gia District, Thanh Hoa Province

3.2.2. Time: started at 8h30' on Dec 15, 2016

3.2.3. Consultation results:

a) Comments by the representatives of social and political organizations, socio-professional organizations and residential groups. Based on the proposed design and potential subprojects:

- The project will not encroach on the historical monuments, cultural, religious and believed works

in the commune.

- The proposed activities of the project will not adversely affect the environment in the commune.
- The project owner needs to develop an environmental protection plan before performing the construction activities and upgrading coastal infrastructure.

b) Comments from the communities

- The local communties recommended that the project owner must fully implement the plan and measures of environmental protection mentioned in the report.
- The local communties recommended that the project owner needs to create favorable conditions for the people involved in the monitoring process of the project activities.
- The local communties recommended that the project owner discloses publicly environmental protection plan so that the local people could monitor it.
- The local communties recommended that the project owner develops specific criteria for activities of supporting livelihood models to ensure the equality and the interests of the people.

IV. NGHE AN PROVINCE

4.1. Diễn Ngọc commune, Diễn Châu district, Nghệ An province

4.1.1. Venue: The Hall of Dien Ngoc CPC, Dien Chau District, Nghe An Province

4.1.2. Time: started at 8h30' on Dec 16, 2016

4.1.3. Consultation results:

a) Comments by the representatives of social and political organizations, socio-professional organizations and residential groups.

- The activities of the project are very practical to improve the system of sea dikes and river dikes before the extraordinary phenomena of nature.
- The project suits the land use planning orientation of the locality.
- In the past, no accidents are related to mines, bomb, and explosives in the commune. However, the project still needs to conduct mine clearance before conducting forest plantation activities.
- It is recommended that the project owner must strictly implement the mitigation measures mentioned.

b) Comments from the communities

- - Assigning the communities for forest protection and management is the right policy of the project. However, the project should develop specific criteria to ensure the long-term benefits of the local people.
- The proposed project activities will not affect the habits and customs of the people.
- In the commune, there is no ethnic minorities.
- The communities asked that the project should prioritize use of local labors in participating in the project activities.
- The project owner needs to inform publicly the project implementation plan.

4.2. Diễn Thanh commune, Diễn Châu district, Nghệ An province

4.2.1. Venue: The Hall of Dien Thanh CPC, Dien Chau District, Nghe An Province

4.2.2. Time: started at 14h30' on Dec 16, 2016

4.2.3. Consultation results:

a) Comments by the representatives of social and political organizations, socio-professional organizations and residential groups. Based on the proposed design and potential subprojects:

- The proposed project activities do not encroach the historical, cultureal, religious monuments in the locality.
- The proposed project activities will not prevent the lives and daily activities of the local people.
- It is recommended that the project owner needs to develop specific criteria when implementing the livelihood models in the locality.

b) Comments from the communities

- The project fully recognized the negative impacts and proposed the appropriate and feasible mitigation measures.
- The project owner needs to ensure quality of seedlings that is suitable for local climate conditions.
- It is suggested that the project owner develop the monitoring plan for shipping of the seedling from the nurseries to planting sites.
- The project owner was asked for expansion of the livelihood support for the people, especially the traditional products of the locality.
- The project owner was asked for implementing fully the mitigation measures mentioned in the report.
- The project owner was asked for early implementation of the project activities and no upgrading and reparing infrastructure items are conducted at the night time.

5. HA TINH PROVINCE

5.1. Ho Do commune, Loc Ha district, Ha Tinh province

5.1.1. Venue: The Hall of Ho Do CPC, Loc Ha District, Ha Tinh Province

5.1.2. Time: started at 8h30' on Dec 17, 2016

5.1.3. Consultation results:

a) Comments by the representatives of social and political organizations, socio-professional organizations and residential groups. Based on the proposed design and potential subprojects:

- Currently, the local government and local communities built their conventions to manage and protect existing forests. Currently the commune has 60.23 hectares of mangroves, the commune asked the project owner for support implementation of eco-tourism activities in the locality.
- The proposed activities for upgrading and renovating the infrastructure do not need land acquisition, compensation and resettlement. However, if it happens, the local authority will be responsible for using the local budget.
- The proposed project activities will not prevent the activities of the local people and the operation of ships and boats.
- The project owner was asked for developing specific criteria to protect the local people's benefits when choosing the livelihood models.

b) Comments from the communities. Based on the proposed design and potential subprojects:

- The project will not adversely affect habits and customs of the local people.
- It is suggested that the project owner plant diverse species to ensure the species biodiversity and to enhance the resilience of sea dike system in the locality.

- It is recommended that the project owner needs to have mechanisms and policies of funding support for the people in participation of forest protection and management.
- In the commune there is no ethnic minorities.
- It is recommended the project owner needs to strictly implement the mitigation measures proposed and to inform publicly the environmental protection plan of the project in the commune.

VI. THUA THIEN HUE PROVINCE

6.1. Quang Cong commune, Huong Tra Town, Thua Thien Hue province

6.1.1. Venue: The Hall of Quang Cong CPC, Huong Tra Town, Thua Thien Hue Province
6.1.2. Time: started at 8h30' on Dec 15, 2016

6.1.3. Consultation results:

a) Comments by the representatives of social and political organizations, socio-professional organizations and residential groups.

- The site conditions for proposed mangrove plantation is quite difficult. Therefore, the proposed work solutions for mangrove plantation need to be appropriate and feasible.
- The proposed project area will not overlap with the areas planned for other projects.
- The project should focus on coastal terrestrial forests against sand shifting so that the local people could develop agricultural production.
- In the commune, there is no ethnic minorities.

b) Comments from the communities. Based on the proposed design and potential subprojects:

- The communities have consensus with the policy of assigning and contracting with the local people/communities in forest management and protection.
- The project does not adversely affect the environment as well as the daily activities of the local people.
- The local people's livelihoods depend mainly on fishery exploitation, farming with very low economic effectiveness. Therefore, the communities proposed the project to support them for investing the fishery equipment and tools, and creating value chains to increase their income, and then they will reduce pressure on forest resources.
- It is requested that the project owner need to implement mine clearance before implementing the project activities.

6.2. Lang Co town, Phu Loc district, Thua Thien Hue province

6.2.1. Venue: The Hall of Lang Co CPC, Phu Loc Town, Thua Thien Hue Province
6.2.2. Time: started at 14h30' on Dec 15, 2016

6.2.3. Consultation results:

a) Comments by the representatives of social and political organizations, socio-professional organizations and residential groups.

- The tourism activity in the locality is relatively developed. Therefore, the project owner was asked for developing tourism models in association with the forest ecology.
- The project does not implement the compensation and land clearance. The project does not encroach on the historical, cultural, religious monument in the locality.
- The project should develop specific criteria to select the households engaged in livelihood models.
- The selection of the livelihood models should be extended to the surrounding area to ensure

benefits of the local people.

b) Comments from the communities

- The proposed mitigation measures are appropriate and feasible.
- The project needs to facilitate good site conditions for plantation and conduct breakwaters in the area the erosion is happening.
- The sandy soil forest plantation activities need to be further than 200m compared to the coastline, focusing on the forest area previously lost.
- The project needs to develop a mechanism to ensure that everyone can have equal benefits from the project activities.
- Activities of upgrading and renovating the coastal infrastructure of the project should focus on water drainage for agricultural production of the local people.
- It is recommended that the project owner must strictly implement the mitigation measures proposed

VII. QUANG TRI PROVINCE

7.1. Trung Giang commune, Gio Linh Town, Quang Tri province

7.1.1. Venue: The Hall of Trung Giang CPC, Gio Linh district, Quang Tri Province

7.1.2. Time: started at 8h30' on Dec 16, 2016

7.1.3. Consultation results:

a) Comments by the representatives of social and political organizations, socio-professional organizations and residential groups.

- Currently, protection forests in the commune are managed by the communities and the cost for their protection comes from the commune budget. Therefore, the communities asked the project owner for developing a mechanism to support the annual budget for their forest management and protection.
- The local people's income comes mainly from fishery exploitation. Therefore, the project should develop a mechanism to prioritize the elderly, the women involved in the project's livelihood models.
- The project should focus on technical support for seafood preservation and processing for the local people.
- The proposed project activities will not adversely affect the natural environment and society in the commune.

b) Comments from the communities

- The project should develop criteria for the selection of households engaged in livelihood models with priority for the households affected by the recent sea environment incident.
- Due to the proposed activities of construction and repairing infrastructure at a small scale, they do not affect the environment and society.
- The proposed forest plantation activities do not use plant protection chemicals, so they do not affect the environment.
- In fact, coastal forest area in the commune is directly affected by storms. Therefore, the project owner should have measures to restrict this impact on the newly planted area.
- It is recommended that the project owner must implement fully and strictly mitigation measures

proposed in the report and inform publicly the activities so that the local people have a chance for monitoring their implementation.

VIII. QUANG BINH PROVINCE

8.1. Gia Linh commune, Quang Ninh, Quang Binh province

8.1.1. Venue: The Hall of Gia Linh CPC, Quang Ninh district, Quang Binh Province

8.1.2. Time: started at 8h30' on Dec 17, 2016

8.1.3. Consultation results:

a) Comments by the representatives of social and political organizations, socio-professional organizations and residential groups. Based on the proposed design and potential subprojects:

- The proposed project activities will not encroach on the culture, belief and religion of local communities
- There are no ethnic minority minorities in the locality.
- Assigning forests to local communities for their management must have the participation of all governmental levels to ensure the rights and benefits of other households.
- The proposed project construction items are on a small scale. However, the project still needs to develop an environmental protection plan and submit it to the DPC for approval before implementation.

b) Comments from the communities

- For mangrove areas, the project should plant diverse species to enhance their resilience.
- Currently, the erosion in the commune is being encroached on existing mangroves. Therefore, the project owner was required to implement work measures to protect the existing forest area in the locality.
- The local agriculture production depends heavily on natural water sources. Therefore, the communities proposed the project owner to focus on upgrading and repairing water storage infrastructure works that serve the production of farmers.
- It is recommended that the project owner disclose publicly environmental protection plan so that the people could monitor implementation of the project activities.