



WWF GEF Agency

Environmental and Social Management Framework & Process Framework

Blue Horizon: Ocean Relief through Seaweed Aquaculture in Vietnam

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LIST OF ACRONYMS

D-Fish	Directorate of Fisheries
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
ESS	Environmental and Social Safeguards
ESSF	Environmental and Social Safeguards Framework
GEF	Global Environmental Facility
LRP	Livelihood Restoration Plan
PAP	Project Affected People
PF	Process Framework
PMU	Project Management Unit
PSC	Project Steering Committee
SEAFDEC	Southeast Asian Fisheries Development Center
SEP	Stakeholder Engagement Plan
SIPP	Safeguards Integrated Policies and Procedures
WWF	World Wildlife Fund

1. INTRODUCTION

The project 'Blue Horizon: Ocean Relief through Seaweed Aquaculture' will work at the global, regional, and national levels to strengthen and develop seaweed value chains. The project will be implemented in the South China Sea, in the coastal and marine ecosystems of Vietnam and Philippines, where significant potential for the expansion of seaweed aquaculture and seaweed aquaculture value chains exists. Seaweed farming is growing as a lucrative business in coastal provinces – farmed as a foodstuff, used in food processing, as well as cosmetics and medical industries. The livelihoods of the people who live in these coastal areas depend on the quality of water and habitat in these rich marine ecosystems.

Seaweed farming provides livelihood resilience for communities, ecosystem services for biodiversity enhancement and generates revenues for emerging countries in order to alleviate poverty. Seaweed can be integrated into multi trophic systems which can strengthen economic resilience of coastal communities, all while providing benefits that will stabilize and strengthen the health of the surrounding environment.

Seaweeds can be grown with no external inputs, removing eutrophic nutrients from the water and turning them into valuable protein, oils, green chemical feedstock, and a range of industrial products. Producing large volumes of seaweeds for human food, animal feed and additives, pharma & medical, fertilizer and food additives could thus represent a transformational change in the global food security equation.

Vietnamese coastal waters are home to hundreds of seaweed species, many of which show promise in various global and regional markets as well as in Vietnam itself. Despite Vietnam's considerable marine resources, and economic connections to the sea, it has lagged behind other regional countries in seizing the opportunities that seaweed production presents. Recognizing opportunities for the seaweed industry, the interest in Vietnamese seaweed production is accelerating across diverse segments of society.

The Project builds upon and contributes to the momentum of rising interest - globally and in Southeast Asia - in seaweed farming. In recent years scientific efforts have intensified to discover new uses and find ways to increase the value and utility of seaweed. Taking up the results of science and technology, development initiatives have accelerated and spread out to devise programs that convert the intrinsic value of macroalgae into tangible benefits for society. In this context, the project contributes to the broad goal of enhancing the well-being of people based upon the environmental, social, and economic benefits that seaweed generates.

The 'Blue Horizon: Ocean Relief through Seaweed Aquaculture' Project (hereinafter: Seaweed Project) seeks to *create new sustainable seaweed value chains that will deliver ecosystem services and socio-economic benefits*. The ecosystem services include the assimilation of excess nutrients from coastal waters, with associated environmental benefits that include mitigation of ocean eutrophication and acidification as well as improvement of habitat for marine life. Downstream of the farming segment of the chain, additional environmental benefits will be derived from the deployment of biorefinery technology in the production areas and the manufacture of seaweed-based products that are biodegradable, such as bioplastics and those that either do not require much energy to produce or are substitutes of products that do. Social and economic benefits include the diversification of livelihood options, improved household and community revenues and opportunities for equitable participation of women and men in the improved or new livelihood opportunities along the value chain.

The Seaweed Project was approved by the GEF Council on December 11, 2020. It will be partially financed by the Global Environment Fund (GEF Financing \$6,000,000; Co-financing \$9,306,269), and

WWF is the proposed implementing agency. Hence, the WWF's Environmental and Social Safeguards Framework, as detailed in the Safeguards Integrated Policies and Procedures (SIPP) apply to the project, and require the preparation of an Environmental and Social Monitoring Framework (ESMF) and Process Framework (PF).

The principles and procedures of the ESMF apply only to project activities that are funded through GEF.

In general, the anticipated adverse environmental and social impacts on the population that resides within project affected areas are site-specific, reversible and can be readily mitigated. Thus, the Seaweed Project is classified as a **"Category B" project** under the WWF Environmental and Social Safeguards Categorization.

The institutional arrangement for the project includes WWF as the GEF Agency, the Southeast Asian Fisheries Development Center (SEAFDEC) as the Lead Regional Executing Agency (its Secretariat in Bangkok, Thailand will host the Project Management Unit), the Bureau of Fisheries and Aquatic Resources (BFAR) of the Philippines and Directorate of Fisheries (D-fish) of Viet Nam as the project executing partners in the Philippines and Viet Nam, respectively, and a Project Steering Committee.

1.1. Objective of the ESMF

The preparation of this ESMF was required in accordance with the WWF's ESSF in order to identify and manage the environmental and social risks and impacts of the Seaweed project. The ESMF aims to outline the principles, procedures, and mitigation measures for addressing environmental and social impacts associated with the project in accordance with the laws and regulations of Vietnam and with the ESSF.

Since the precise scope of activities that will be implemented as part of the project will only be determined during the implementation phase, site-specific social and environmental impacts are uncertain at this stage. Thus, the development of site-specific Environmental and Social Management Plans (ESMPs) is currently not feasible, and an ESMF is necessary to set out procedures for addressing potential adverse social and environmental impacts that may occur during project activities. Site-specific ESMPs will be developed pursuant to the guidance provided by this ESMF during project implementation.

The specific objectives of the ESMF include the following:

- Carry out a preliminary identification of the positive and negative social and environmental impacts and risks associated with the implementation of the Project;
- Outline the legal and regulatory framework that is relevant to the Project implementation;
- Specify appropriate roles and responsibilities of actors and parties involved in the ESMF implementation;
- Propose a set of preliminary recommendations and measures to mitigate any negative impacts and enhance positive impacts;
- Develop a screening and assessment methodology for potential activities, that will allow an environmental/social risk classification and the identification of appropriate safeguards instruments;
- Set out procedures to establish mechanisms to monitor the implementation and efficacy of the proposed mitigation measures; and

- Outline requirements related to disclosure, grievance redress, capacity building activities, and budget required for the implementation of the ESMF.

1.2. Objective of the PF

The Project triggers the WWF's Standard on Access Restriction and Resettlement as it may restrict or otherwise affect access to natural resources and the livelihood activities of project affected people (PAP). This Process Framework (PF) describes the process by which affected communities participate in identification, design, implementation and monitoring of relevant project activities and mitigation measures. The purpose of this PF is to ensure participation of Project Affected People (PAP) while recognizing and protecting their rights and interests and ensuring that they do not become worse off as a result of the project. Specifically, the PF will:

- Describe activities that may involve new or more stringent restrictions on use of natural resources in the project area.
- Establish the mechanism through which the local communities can contribute to the project design, implementation and monitoring.
- Identify the potential negative impacts of the restriction on the surrounding communities.
- Specify the criteria for eligibility of economically displaced persons to receive compensation benefits and development assistance (no physical displacement will be allowed under this project).
- Describe the mitigation measures required to assist the economically displaced persons in their efforts to improve their livelihoods, or at least to restore them, in real terms, while maintaining the sustainability of the park or protected area, will be identified;
- Describe the grievance procedure or process for resolving disputes to natural resource use restrictions.
- Describe the participatory monitoring arrangements with neighboring community members.

As the project intends to enhance the livelihoods and resilience of indigenous peoples and local communities, the allocation of project benefits among local community members is particularly important. The intent of the framework is to ensure transparency and equity in the planning and implementation of activities by the project. This framework details the principles and processes for assisting communities to identify and manage any potential negative impacts of the project activities. Since the exact social impacts will only be identified during project implementation, the PF will ensure that mitigation of any negative impacts from project investments through a participatory process involving the affected stakeholders and rightsholders. It will also ensure that any desired changes by the communities in the ways in which indigenous peoples exercise customary tenure rights in the project sites would not be imposed, but should emerge from a consultative process.

1.3. ESMF/PF Preparation Methodology

The ESMF/PF was prepared based on the following information: desk review of all project materials and field visit to Ninh Thuan and Khanh Hoa Provinces, where project sites will be located in December 2021. The field visit included key informant interviews, consultations, and focus group discussions with provincial authorities (6 individuals in Ninh Thuan and 2 in Khanh Hoa); commune/ward authorities (3 individuals in Phuoc Dinh, Ninh Thuan and 3 individuals in Ninh Hai,

Khanh Hoa); women union (one in Phuoc Dinh and one in Ninh Hai); farmers (6 Kappaphycus farmers; and 6 seagrape farmers); company/brokers representatives (2 for Kappaphycus and 1 for Seagrapes). Overall, 33 participants were consulted, out of whom 24% are women.

The ESMF/PF draws on consultations results, and on the relevant laws and regulations of Vietnam and SIPP. The relevant laws and regulations of Vietnam related safeguards apply to the project since it is implemented within the jurisdiction of Vietnam. WWF's SIPP apply since the project is managed by WWF, which is an implementing agency of GEF.

In order to avoid duplications and for ease of reference, the ESMF and PF are combined into a single document.

2. PROJECT DESCRIPTION

This chapter outlines the objectives of the Vietnam Seaweed project, its components, milestones, and major supported activities.

2.1. Project Objectives and Components

The objective of the project is “to create new sustainable seaweed value chains that will deliver ecosystem services and provide socioeconomic benefits.”

The Project is expected to generate environmental, economic, and social benefits.

Environmental benefits are expected to result from the enhanced ecosystems services provided to the seaweed farms, specifically: mitigation of acidification of the sea, oxygenation of coastal waters, mitigation of eutrophication of marine waters, mitigation of harmful algal blooms and improvement in the conditions for aquatic biodiversity.

Economic benefits are expected to accrue from enhanced and diversified livelihood opportunities, which will improve incomes through the increased production of higher-quality biomass, production and sale of traditional product forms, participation in the production and sale of higher value products, and should it prove feasible, the prospect of additional income from carbon credits. Some higher value products based on seaweed would also impart environmental benefits (e.g., bioplastics).

Social benefits are expected to include improved livelihoods, employment opportunities generated by the production of and trade in traditional and new consumer products, as well as enhanced food security. A multiplier effect is also expected due to higher incomes from seaweed enterprises: farmers will be able to use their increased revenues to invest in micro- or other small-scale enterprises (e.g., small convenience stores). A higher and more stable family income will also contribute to an improved access to health care and support to children's education. An intrinsic social benefit is the enhanced self- and collective esteem that results from participation in the development of a progressive, self-reliant community.

The Project's objective will be achieved through the following four inter-connected components:

Component 1: Regional approach and capacity for seaweed value chains in SE Asia. Under this Component, the project will develop plans, tools, and trainings to build a supportive regional enabling environment for seaweed aquaculture. This will include development of a Regional Guide for Seaweed Aquaculture in the Region, to be adopted by the SEAFDEC Governing Council, standards for seaweed aquaculture that are adapted to the region and encompass operational, environmental, and consumer safety (adapted from global guidance from the Safe Seaweed Coalition), and trainings and capacity building to support both the plan and adoption of the standards. Such a regional approach

will support the region's capacity to further expand, modernize and establish a strong influence in global seaweed value chains.

Component 2: Enabling Environment for Seaweed Aquaculture in Philippines and Viet Nam.

This involves creating an enabling environment for seaweed aquaculture at the national level. A governance framework comprising policy, regulatory and technical guidelines will be developed. The project will support processes to identify suitable areas for seaweed expansion, and to formulate and operationalize management plans specific to such areas, with accompanying plans and coordination mechanisms (national/regional/global) to support this component.

Component 3: Seaweed Value Chains (production + processing). This Component requires working with organized producers (organized into associations or cooperatives) to pilot farms in areas farther than current sites (i.e. off-the-coast or off-shore) that will serve as proof of concept for seaweed production in these environments. It will seek to expand collaboration with the finance sector and private sector.

Component 4: Knowledge Management, M&E, and IW Learn (regional). This involves knowledge sharing and monitoring and evaluation. The activities will be monitored and communicated through multiple channels. In this way the project will utilize and expand on current baseline activities in the seaweed industry in the Philippines and Viet Nam to promote the interests of seaweed farmers and their communities, and grow the global market for seaweed in a sustainable and responsible fashion.

2.2. Project Area Profile

The project will be implemented in two sites in the Philippines and two sites in Viet Nam. Three of the sites are marine waters and the second site, in Viet Nam, comprises land-based coastal ponds that are being converted from shrimp to *Caulerpa lentillifera* culture. *Caulerpa* is a green species of seaweed that is consumed directly as food. The shrimp ponds have degraded and are becoming sub-optimal for shrimp production. There are vast areas of such ponds not only in Viet Nam but also in other shrimp producing countries in Southeast Asia. Attempts have been made at rehabilitating or restoring their productive capacity through substitution, rotation or integration with seaweed as well as other non-fed and/or extractive species.

The Project sites are in the Philippines and Viet Nam (see location map in Figure 1).

Vietnam has 3,260 km of coastline with 28 coastal provinces and cities, 12 large lagoon regions, straits and bays, 112 estuaries, very rich canal systems and over 4,000 small and larger islands scattered along the coast which have potential for aquaculture activities¹. Vietnam's sea and islands are home to six different regions of marine biodiversity. Over the past decades, Vietnamese fisheries sector development has increased rapidly, and currently ranks as the third-most prominent economic sector in the country, after the oil and garment industries. Many millions of people throughout Vietnam depend in full or part on the country's aquatic resources for food, livelihood, and employment.

¹ <http://www.seafdec.org/fisheries-country-profile-viet-nam>



Figure 1. Project Sites: (1) Zamboanga City, Zamboanga Peninsula, Philippines; (2) Green Island, Roxas, Palawan, Philippines; (3) Thuận Nam District, Ninh Thuan province, Vietnam; (4) Ninh Hòa District, Khánh Hoà Province, Vietnam.

In Vietnam, the first site is in the district of Ninh Hoa in The Province of Khanh Hoa and the second in the district of Thuan Nam in the Province of Ninh Thuan.

Ninh Hòa is a district-level town (thị xã) of the Khánh Hòa province in the South-Central Coast region of Vietnam. The district covers an area of 1,199 km², and its capital is Ninh Hòa. It is located about 500 km north of Ho Chi Minh City.

Hàm Thuận Nam is a rural district of Bình Thuận Province in the Southeast region of Vietnam. The district covers an area of 1,052 km², and its district capital city is Thuận Nam.

2.3. Demographic and economic information

The population and workforce of Khanh Hoa and Ninh Thuan provinces in 2020 divided by gender are provided in Table 1. Overall, the ratio of men and women is 50:50 of the total population, while there is a larger percentage of men who participate in the workforce. This may be explained by the fact that women are more likely to remain at home or hold temporary jobs.

The average educational attainment of women is 4 years (primary school), while the average educational attainment of men is 7.5 years. Women face difficulties in accessing education due to household chores and the geographic distance of secondary schools from their community.

Table 1. The population and workforce of Khanh Hoa and Ninh Thuan provinces, 2020

	Khanh Hoa		Ninh Thuan	
	Population	Workforce	Population	Workforce
Total	1,240,400	638,800	591,000	338,100
Men	617,000 (49.74%)	340,600 (53.32%)	296,400 (50.15%)	184,100 (54.45%)
Women	623,500 (50.26%)	298,200 (46.68%)	294,700 (49.86%)	154,000 (45.55%)

Source: the annual statistics of Khanh Hoa and Ninh Thuan, 2020

The primary economic sectors in the Khanh Hoa province are industry and services, while the agriculture/forestry/fisheries sector is only responsible for 11% of the provincial GDP. In the Ninh Thuan province, the agriculture-forestry - fisheries sector accounted for around 31% of the total province GDP.

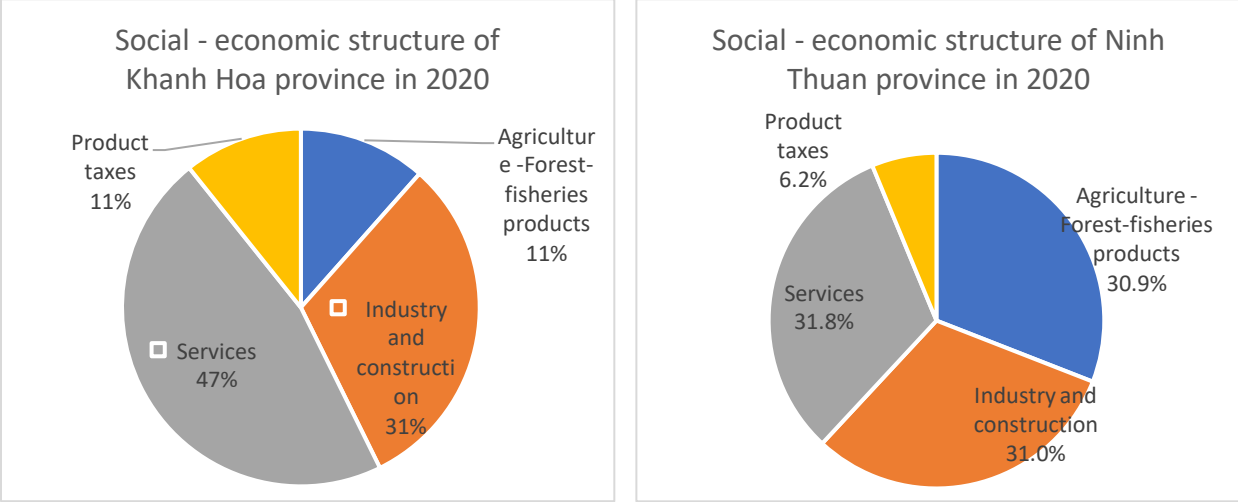


Figure 2. the socio-economic structure of Khanh Hoa and Ninh Thuan provinces in 2020.

Ninh Thuan province

The project proposes to pilot the growth of *Kappaphycus* along the coastal areas occupied by the Phuoc Dinh community, Thuan Nam district, Ninh Thuan province.

The *Kappaphycus alvarezii* was first introduced in Ninh Thuan province in 1993. Some other coastal provinces, after seeing Ninh Thuan grow successfully, also switched to growing *Kappaphycus alvarezii* seaweed. Up to now, seaweed farming has attracted and created jobs for 4,000 households, taking advantage of the water surface area in the lagoons, coastal areas².

Kappaphycus is primarily cultivated by individual farmers, who employ the traditional method of rope-tie on the line. The produce is then sold to collectors, pre-processing facilities or/and processing companies. The collectors classify and sell the fresh *Kappaphycus* to pre-processing facilities or/and processing companies.

At the pre-processing facilities, *Kappaphycus* is classified, cleaned and dried. There are two kinds of dried products: the young *Kappaphycus* is dried, decolored to be white, and sold for human consumption (domestics or export), the mature dried *Kappaphycus* (black color) is sold to processing companies, where *Kappaphycus* is extracted and processed into carrageenan or other products. These products are then sold locally or exported overseas. Locally, the processed products are

² See GEF project document.

distributed to markets through mini and supermarket retail chains, such as Lotte, Vinmart, etc. A share of the *Kappaphycus* is also exported to foreign markets such as EU, US, etc.

Processing companies are mostly SME, which apply traditional processing methods for the local market, such as *Kappaphycus* jams and dried jellies. Only a few processing companies employ more than 100 employees. There is no clear distinction between collectors and pre-processors, as most of the fresh *Kappaphycus* is classified and dried. Some pre-processors export directly the white dried *Kappaphycus*.

Both men and women are engaged in the *Kappaphycus* farming, performing distinct functions. Men are primarily responsible for farming preparations, tie roping, dealing with floating plastic, and taking care of *Kappaphycus* harvest in the sea. Women are primarily responsible for tying *Kappaphycus* to the rope, cleaning up the *Kappaphycus* harvest, drying and selling the seaweed on the shore (7-8 kg of fresh *Kappaphycus* are equivalent to 1 kg of dried *Kappaphycus*).

During the peak period of *Kappaphycus* farming (from April to September), 107 households in the community cultivate 82 ha., which produce 25 to 30 tons of fresh weight.

The primary economic challenges faced by the community include market fluctuation (prices range between 3,000-6,000 vnd/kg for fresh produce, and 27,000-35,000 vnd/kg for dried), other fish that eats the seaweed, weather impacts, such as strong waves and high temperature (between October and March), low quality of seedlings, and the “ice-ice” disease.

The cost of the *Kappaphycus* farming is around 50-60 million vnd per ha., which includes materials for farming, seedling (50%), and hired labour. The total revenue is around 125-150 million vnd (if the market price is 5,000 vnd for 1kg of fresh produce, the profit is around 50-70 million vnd/ha./year).

During 2011-2015, *Kappaphycus* growth went through a rapid development, occupying a total area of up to 206 ha. and yielding more than 3,500 tons per year. In 2020, due to market fluctuation, weather conditions (storms and high sea temperature), attacks on the seaweed by other fish, and lack of quality of seedling, only 16 ha. for *Kappaphycus* were cultivated, producing 450 tons of fresh *Kappaphycus*. Similarly to other coastal provinces, seaweed farming in the area is in competition with other sectors (especially i.e. tourism, aquatic animal culture, fishing, navigation, energy production, etc.).

All province residents are Kinh people, and there are no indigenous peoples or ethnic minorities in the area.

Khanh Hoa Province

Project activities are proposed to be implemented in the Ning Hai ward, Ninh Hoa town, Khanh Hoa province. The ward consists of 2,181 households and 8,126 people (average 04 members/household).

The province has good conditions for seaweed farming, including *Kappaphycus* and *Caulerpaceae*. As of 2020, 47.4 ha. were cultivated for *Caulerpaceae* and *Kappaphycus* with 414 tons. *Caulerpaceae* (“sea grape” weed) is mostly grown in the Ninh Hai ward.

The sea-grape seaweed was introduced into Vietnam in 2004 and grape seaweed farming has yield reached 30 tons/ha/year, selling price is high (from 8 to 10 USD/kg of fresh seaweed). Grape seaweed is also very easy to grow. At present there is about 27 ha of grape seaweed in Khanh Hoa province.

Nowadays around 58 households cultivate the seaweed on an area of 30 ha., average 5,000 m²/household. Most farms shifted to sea-grapes seaweed farming from shrimp ponds, seasnail ponds or salt ponds. Production ranges from 10 to 20 ton/ha/year of fresh produce.

Sea grape weeds are primarily cultured by individual farmers. There is no structured learning process and the farmers acquire farming techniques through learning-by-doing and looking at each other. Women are responsible for nearly 60% of the sea-grapes seaweed production, particularly in the harvesting phase as they pick the sea-grapes seaweed.

After the harvest, farmers sell the seaweed to collectors, processing facilities and companies. The collectors typically sell the fresh produce to processing facilities or directly to domestic retailers. In the processing facilities, the sea grapes are cleaned, processed and packaged into different products—mainly fresh sea grape, dehydrated sea grape and sea grape by-products such as seagrape juice.

Processing facilities and companies are mostly family-owned SMEs that employ up to 60 employees. There are around 20 companies of this type in the province. There is typically no clear distinction between collectors and processing companies. Since the processing process is relatively simple, some of the collectors sell the classified fresh sea grapes directly to the domestic market. This includes (1) restaurants and food chains; (2) mini and supermarket retail chains, such as Lotte, Vinmart, etc. At large proportion of seagrape weeds are exported to foreign markets.

The cost of production for sea-grapes seaweed for 1 ha. is as follows: pond investment around 300mil vnd for pond preparation (long term used 10 years), 100 mil for rope, net (3-5 year), seedling 20 mil vnd, harvest cost 200 mil (10k vnd/kg, estimate 20 tons/ha/year. Market price for sea-grapes seaweed ranges from 20k vnd – 35k vnd/kg (depend on the quality of the product). The net profit is around 25mil – 425mil vnd.

The primary challenges encountered by sea-grapes farmers include market price fluctuations, lack of efficient farming techniques, diseases that attach the seaweed (including seaweed worms), and the low salinity of the local sea water (the salinity conditions are only sufficient between October and December). Another major challenge is the competition of the local aquaculture with other sectors, such as tourism, aquatic animal culture, fishing, navigation, energy production, etc.

All province residents are Kinh people, and there are no indigenous peoples or ethnic minorities in the area.

Project stakeholders:

The primary project stakeholders in the two project sites are as follows:

1. Ninh Thuan Province. Direct beneficiaries: 100 households with 400 people. Awareness raising activities will target 500 additional individuals. Nearly 100 brokers of in the seaweed supply chain will also be affected.
2. Khanh Hoa Province. Direct beneficiaries: 60 households with 240 people. Awareness raising activities will target 300 additional individuals. Nearly 100 brokers of in the seaweed supply chain will also be affected.

2.4. Biodiversity

The general biodiversity characteristics of the Van Phong Bay site, in the Khanh Hoa province are as follows:

Coastal waters have good exchanges with the open sea through seasonal circulations and the heterogeneous shoreline. Secondary materials from previous scientific studies indicated the extraordinary biodiversity of the waters, which contain numerous habitats, such as coral reefs, mangroves, seagrass beds, islands, and beaches, and include a high species richness of marine features. Among them, coral reefs were considered the target habitats in the shallow waters, mainly in the Nha Trang Bay and Van Phong Bay. The nearby (30 km) Nha Trang Bay (well studied due to Hon Mun Marine Protected Area) is considered to have one of Vietnam's highest marine biodiversity. More than 600 fish species have been discovered and 50 of which have considerable economic value in the area.

The Trao Reef Marine Reserve (approx. 10 km from site) is at the coast of Van Phong Bay, Van Ninh, Khanh Hoa, and it consists of: hard coral reefs (cover about 60%) and soft coral (cover about 10%); many kind of high value marine species such as abalone, sea horse, sea cucumber and sea anemone.

The characteristics of the Ninh Thuan province:

The coastal waters (as with Khanh Hoa) are characterized by a unique deep water upwelling and exchange currents; gives coral reefs here a high degree of adaptability to sea level rise. The coastal waters of Nui Chua NP are rich in marine resources with 334 species of coral; 260 species of reef fish, 115 species of molluscs; 24 species of crustaceans; seagrass beds.

The Seaweed site (Zone D) is located approx. 30 km from marine component of Nui Chua Biosphere Reserve. The reserve was originally established in 2003 as Nui Chua National Park, and it is a famous conservation and ecotourism area. It consists of a total area of 31,010 hectares, of which 7,352 hectares of marine area and the rest are terrestrial and coastal forests (23,658). The Reserve is the 2nd most prominent turtle nesting beach in Vietnam (in Nui Chua), consisting mostly of green turtle (*Chelonia mydas*), and small numbers of hawksbill sea turtle (*Eretmochelys imbricata*) and olive Ridley (*Lepidochelys olivacea*). There are approx. 50 nests/year (although exact figures unknown due to incomplete monitoring). There is a strict protection and generally effective conservation of the nesting beaches inside the park. No current nesting beaches at or near the pilot site.

2.5. Indigenous Peoples and Vulnerable Groups

Vietnam is a multi-ethnic country with over fifty distinct groups (54 are recognized by the Government of Vietnam), each with its own language, lifestyle, and cultural heritage. The largest ethnic groups are: Kinh (Viet) 86.2%, Tày 1.9%, Thái 1.7%, Mường 7%, H'Mông (Mông) 1%, others 4.1% (1999 census). The Viet (Kinh) people mainly inhabit in the Red River delta, the central coastal delta, the Mekong delta and major cities. The other 53 ethnic minority groups, totaling over 8 million people, are scattered over mountainous and remote areas (covering two-thirds of the country's territory) spreading from the North to the South. Among ethnic minorities, the most populated are Tày, Thái, Mường, Hoa, Khmer, Nùng, etc. with a population of around 1 million each, while the least populated are Brâu, Rơ Mâm, Ơ Đu with several hundred people each.

Vietnam's policy of not discriminating against IPs is evidenced by the establishment of Council for Ethnic Minority Affairs, which belonging to the National Assembly. The Constitution (2013) provides adequate legal and institutional frameworks to protect IPs and ratifies their distinct languages as one of the aspects of cultural diversity and identity. The Committee of Ethnic Minorities Affairs (CEMA -

a ministerial level agency) is responsible for all activities related to IP people to ensure equal access and participation to Government policies and investments. This has been the case when for example IPs received preferential treatment for accessing college admission and to benefit from other social programs and subsidies (e.g. cooking oil, provision of iodized salt, among others).

The government, multilateral and bilateral agencies, and NGOs have organized numerous development and special assistance programs that target IPs. Yet IPs in Vietnam are severely disadvantaged if compared with the rest of the country. The poorest IPs remaining are harder to reach; facing challenges due to isolation, limited assets, low levels of education, poor health status. IP poverty is a growing and persistent challenge. There are many reasons for the pervasive poverty of IP groups in Vietnam. Such as dealing with population growth, depletion of natural resources, and cultural dislocation resulting from decades of imposed change.

The IP groups are largely settled the mountainous districts and communes, which hold the higher percentages of land classified as forest. There are no IPs or ethnic minorities in areas where project activities are planned in the Khanh Hoa and Ninh Thuan provinces.

2.5. Decision-making

Decision-making on community affairs is reportedly equal between men and women. Since men are more likely to work at the sea, their capacity to participate in community meetings is more limited compared to women. In 62.5% of the seaweed households, at least one woman is a member of the Women's Union.

3. ENVIRONMENT AND SOCIAL POLICY, REGULATIONS AND GUIDELINES

This chapter first outlines the laws and regulations of Vietnam and the WWF's SIPP that are applicable to the project, and then discusses gaps between Vietnam's laws and regulations and the SIPP. **For the purposes of the Seaweed Project implementation, the principles and procedures of the SIPP shall prevail in all cases of discrepancies.**

3.1 Vietnam's Policies, Laws, Regulations Guidelines

In Vietnam, there are national laws, regulations, and policies related to implementation of environmental and social safeguards, as well as those on coastal areas management which are directly related to this Project. The sections below highlight the key laws, policies and regulations. Particular attention has been paid to laws and regulations governing the project's implementation and the access of poor and excluded groups to goods, services, and opportunities provided by the project.

Vietnam has issued several key policies and strategies since 1991 to develop the fisheries sector. The current legal documents of the state management system on aquaculture including seaweed comprise: the laws promulgated by the National Assembly (e.g., the Fisheries Law and Law on Planning); ii) decisions, decrees and directives of the Prime Minister; and iii) circulars, decisions and directives issued by ministers to guide and enforce the implementation of the laws.

The Government of Vietnam adopted the **FAO Code of Conduct for Responsible Fisheries (CCRF)**

in 1995. To uphold the Code, the Government of Vietnam enacted Decision 153/QĐ-TTg dated 17 August, 2004, promulgating a strategy for sustainable development in Vietnam (called Vietnam Agenda 21). Among them are the Law on Fisheries (2003 and 2017) and a series of documents guiding the detailed implementation of these laws. These policies stated that economic growth must be coupled with implementation of social progress and equity and environmental protection, ensuring the harmony between the man-made environment and the natural environment, and preserving the biodiversity. The resolutions of the Party Congress have showed that focusing on security and safety is one of the top factors in people's lives. In 2020, in light of increasing adverse climate change related events in Vietnam, the Government issued the Resolution Number 136 on sustainable development to clarify responsibilities and task among ministries and central authorities to facilitate the implementation of SDGs.

The **Law on the Sea** of Vietnam was passed in 2012 by the National Assembly (which became effective in January 2013), in which Article 35 marked specific regulations on the conservation and protection of the marine resources and environment. In June 2015, the National Assembly approved the Law on Marine and Island Resources and Environment (which became effective in July 2016) with regulations to forbid the actions of degrading and destroying the marine and island environment and ecosystem, to forbid the violation of maritime spatial planning, and to promote the sustainable use of marine resources.

The **11th Party Central Committee's Resolution** No. 24-NQ/TW dated 3 June 2013 on active response to climate change and improved management of natural resources and environmental protection, and other legal documents such as Strategy for Sustainable Exploitation and Use of Natural Resources and Protection of Marine Environment, the National Strategy on Biodiversity, the Viet Nam Fisheries Development Strategy until 2020, the Planning of Viet Nam's Marine Protected Area System up to 2020 set many targets in line with SDG 14 and have contributed to: The development of systems of marine protected areas and inland water conservation zones; Participatory and community based management models have been scaled up; Aquatic resources have been restored, recovered and developed.

The **Sustainable Development Goal 14** in the Agenda 2030 states that up to 2030, the coastal and marine protected areas will account for 3%-5% of the natural protected areas. The percentage of marine protected area was only 0.6% of the territorial water in 2018³. According to the Decision 742 in 2010 on the master plan of marine protected areas and Resolution No. 36-NQ/TW in 2018 on the In the **Strategy for sustainable development of Vietnam's marine economy to 2030**, with a vision to 2045, the blue sea economy is identified as the foundation for sustainable development of the country's marine economy by 2030, in which expanding the area of marine protected areas becomes an important content of the blue sea economy⁴.

In practice, the substantive integration of national sustainable development into the plans of different sectors is dependent on the hierarchical planning structure of the Vietnamese government. At the national level, each sector submits a plan to the Ministry of Planning and Investment, which then elaborates both the national master plan and 5-year plan. However, this process provides little opportunity to examine trade-offs and compromise across sectors, which is critical for delivery of sustainable development. The Resolution Number 136 in 2020, does, however, promote a coordination mechanism by giving a mandate to multiple government ministries to evaluate and reconcile complex trade-offs between sectors affecting sustainability. In addition, the strategy also directs the Provincial People's Committees to develop provincial action plans to implement the

³ Sustainable Development Report in 2020, <https://www.sustainabledevelopment.report/>

⁴ The area of marine and coastal conservation zones will increase to at least 6% of the natural area of the country's maritime zones (Resolution No 36, 2018).

national sustainable development locally. However, the scope of integration intended through this locally coordinated action is limited.

More general laws on environmental protection include the following:

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.

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 Biodiversity No. 20/2008/QH12 of the National Assembly of Vietnam dated November 13, 2008 provides for the conservation and sustainable development of biodiversity; rights and obligations of organizations, households and individuals in the conservation and sustainable development of biodiversity.

Laws related to resettlement and cultural heritage are as follows:

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 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 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;

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 Plant Protection Department, the Fisheries and Aquaculture, the Rural Development Department, and other agencies are responsible for ensuring effective aquaculture and fisheries management.

3.2 WWF Safeguards Standards and Procedures Applicable to the Project

WWF's safeguards standards require that any potentially adverse environmental and social impacts are identified, and avoided or mitigated. Safeguards policies that are relevant to this project are as follows.

(i) Standard on Environment and Social Risk Management

This standard is applicable because the Seaweed Project intends to support activities that result in a variety of environmental and social impacts. The Project is expected to support seaweed production and improve the livelihoods of seaweed farmers, and its environmental and social outcomes are thus expected to be positive. Adverse environmental and social impacts that may occur as a result of project activities are expected to be site-specific, negligible and easily mitigated.

The precise location and impact of specific activities cannot be determined at this stage, and will only be known during project implementation. Thus, an ESMF is prepared to set out guidelines and procedures on how to identify, assess and monitor environmental and social impacts, and how to avoid or mitigate adverse impacts. Site-specific ESMPs will be prepared as required, based on principles and guidelines of the ESMF.

(ii) Standard on Protection of Natural Habitats

WWF's mission is to protect natural habitats, and it does not undertake any projects that would result in conversion or degradation of critical natural habitats, especially those that are legally protected, officially proposed for protection, or identified as having high conservation value.

The seaweed farming area, where project activities will be carried out, provides ecosystem services and livelihood to project affected communities. Seaweed farming is the mainstay of project affected communities, who are directly dependent on it.

Overall, the Seaweed Project activities will produce significant environmental and livelihood-related benefits. Any potential adverse environmental impacts on human populations or environmentally important areas including the local fisheries and aquaculture are expected to be very limited. However, the ESMF is prepared to properly manage the risk of any unforeseen adverse environmental impact on natural habitats, including critical natural habitats, as well as measures to enhance the project's positive environmental outcomes.

(iii) Standard on Involuntary Resettlement

The WWF's Standard seeks to ensure that adverse social or economic impacts on resource-dependent local communities as a result from restrictions on resource access and/or use are avoided or minimized. Resolution of conflicts between environmental objectives and local livelihoods is sought primarily through voluntary agreements, including benefits commensurate with any losses incurred. Involuntary resettlement is avoided or minimized, including through assessment of all viable alternative project designs and, in limited circumstances where this is not possible, displaced persons are assisted in improving or at least restoring their livelihoods and standards of living relative to pre-displacement or pre-project levels (whichever is higher).

The adverse resettlement impacts of the Seaweed project are expected to be minimal. Land acquisition or physical displacement will be avoided. Other forms of economic resettlement (e.g., restrictions of access to natural resources and livelihoods, loss of community property resources,

land use conflicts, etc.) will be discouraged under the project. However, if such resettlement impacts will be unavoidable, mitigation measures will be taken to reduce and mitigate such impacts, in accordance with the guidance provided in the ESMF.

(iv) Standard on Indigenous Peoples

The WWF's standard requires ensuring that indigenous rights are respected, that indigenous peoples do not suffer adverse impacts from projects, and that indigenous peoples receive culturally appropriate benefits from conservation. The policy mandates that projects respect indigenous peoples' rights, including their rights to FPIC processes and to tenure over traditional territories; that culturally appropriate and equitable benefits (including from traditional ecological knowledge) are negotiated and agreed upon with the indigenous peoples' communities in question; and that potential adverse impacts are avoided or adequately addressed through a participatory and consultative approach.

The standard is not triggered for the Seaweed Project in Vietnam since there are no indigenous peoples or ethnic minorities in project in project areas in the Ninh Thuan and Khanh Hoa Provinces.

(v) Standard on Community Health, Safety and Security

This Standard ensures that the health, safety and security of communities are respected and appropriately protected. The Guidance on Labor and Working Conditions requires employers and supervisors to implement all reasonable precautions to protect the health and safety of workers through the introduction of preventive and protective measures. It also requires that the labor rights of project-employed workers are observed, as indicated in Annex 1: Screening Tool. Project activities should also prevent adverse impact involving quality and supply of water to affected communities; safety of project infrastructure, life and properties; protective mechanisms for the use of hazardous materials; disease prevention procedures; and emergency preparedness and response.

(vi) Standard on Pest Management

The project will not allow the procurement or use of formulated products that are in World Health Organization (WHO) Classes IA and IB, or formulations of products in Class II, unless there are restrictions that are likely to deny use or access by lay personnel and others without training or proper equipment. The project will follow the recommendations and minimum standards as described in the United Nations Food and Agriculture Organization (FAO) International Code of Conduct on the Distribution and Use of Pesticides and its associated technical guidelines, and procure only pesticides, along with suitable protective and application equipment, that will permit pest management actions to be carried out with well-defined and minimal risk to health, environment, and livelihoods.

The project will not fund nor include the promotion or usage of pesticides. On the contrary, it will aim to reduce the amount of chemical fertilizers and pesticides used through strengthening of farmer capacity on the proper use of chemicals/non-chemical alternatives for seaweed farming. Thus, this standard is not triggered by the project.

(vii) Standard on Cultural Resources

This Standard requires that Cultural Resources, which include archaeological, paleontological, historical, architectural, and sacred sites (e.g., graveyards, burial sites, sites of unique natural values, etc.) are appropriately preserved and their destruction or damage is appropriately avoided.

Project activities are not expected to negatively impact cultural resources, since Project activities will be implemented in areas that lack such resources (i.e., in coastal areas or inside the sea). However, to avoid any adverse impacts on cultural resources, the project will not finance activities that could significantly damage such resources. The Project Management Unit will also consult with local people and other relevant stakeholders in documenting the presence and significance of cultural resources, assessing the nature and extent of potential impacts on these resources, and designing and implementing mitigation plans.

(viii) Standard on Accountability and Grievance System

Project-affected communities and other interested stakeholders may raise a grievance at any time to the Project Team and WWF. The PMU will be responsible for informing project-affected parties about the Accountability and Grievance Mechanism. Contact information of the PMU and WWF will be made publicly available. Relevant details are also provided in the Grievance Redress section of this ESMF/PF.

The WWF Standard on Accountability and Grievance Mechanism is not intended to replace project- and country-level dispute resolution and redress mechanisms. This mechanism is designed to: address potential breaches of WWF's policies and procedures; be independent, transparent, and effective; be accessible to project-affected people; keep complainants abreast of progress of cases brought forward; and maintain records on all cases and issues brought forward for review.

(ix) Standard on Public Consultation and Disclosure

This standard requires meaningful consultation with relevant stakeholders, occurring as early as possible and throughout the project cycle. It requires the Project Team to provide relevant information in a timely manner and in a form and language that are understandable and accessible to diverse stakeholders. This standard also requires that information concerning environmental and social issues relevant to the project is disclosed for at least 30 days prior to implementation. WWF will disclose safeguards documentation on its Safeguards Resources web page. The final safeguards documents should be published on national websites of the Implementing Agencies and made available locally in specific locations. The project is also required to locally release all final key safeguards documents via hardcopy, translated into the local language and in a culturally appropriate manner, to facilitate awareness by relevant stakeholders that the information is in the public domain for review.

(x) Standard on Stakeholder Engagement

This standard details the necessary requirements for meaningful, effective and informed stakeholder engagement in the design and implementation of projects. The project has prepared a Stakeholder Engagement Plan that will be implemented during the project.

3.3 Gaps between Vietnam's laws and policies and the WWF's SIPP

While the Vietnamese national regulatory systems are largely consistent and are complying with the WWF's SIPP, certain gaps exist between these two systems.

Environmental protection and biodiversity. There are no relevant gaps in the country's laws on biodiversity and management of its biological resources with respect to WWF's Standards. However, there is a lack of a comprehensive screening requirement of adverse environmental and social impacts of development interventions in Vietnam's legislation.

Resettlement. Analysis of the national systems indicate that the following gaps exist with respect to involuntary resettlement and access restrictions: (i) criteria for determining eligibility of informal settlers and cut off dates; (ii) adequacy of transition support, alternative income-earning opportunities, and livelihoods restoration, particularly for vulnerable people; (iii) protection for informal economic activities and compensation for loss; and (iv) full replacement cost for economic and physical displacement.

Occupational health and safety. All the key elements of the WWF's Occupational Health and Safety Standards are adequately addressed by the current country legal framework, namely basic worker's rights (e.g., right to assembly, collective bargaining, overtime, minimum wage, insurance, separation benefits, etc.); non-discrimination; child labor; occupational health and safety; and grievance redress mechanism.

Community health and safety. The country has an array of legislations dealing with public health and safety, including structural standards for buildings, fire safety, food safety and safety concerns on the use of pesticides. The country system however could provide explicit guidelines for anticipating and avoiding the transmission of sexually transmitted communicable diseases due to influx of temporary or permanent workers.

Community engagement. The WWF's Standards require the preparation of a Process Framework, which is not mandatory under Vietnamese legislation. The PF will ensure that the impacts of the project are periodically assessed throughout project implementation, that any adverse impact would be avoided or mitigated so that PAPs would benefit in an optimum manner and that their welfare and culture are duly protected/promoted. The PF is part of this ESMF in Section 4.5.

For the purposes of the Seaweed project, the provisions of the WWF's SIPP shall prevail over Vietnam's legislation in all cases of discrepancy.

4. ANTICIPATED ENVIRONMENTAL AND SOCIAL IMPACTS AND MITIGATION MEASURES

The objective of the project is “to create new sustainable seaweed value chains that will deliver ecosystem services and provide socioeconomic benefits,” and it is thus expected to result in major positive environmental outcomes. This section outlines potential adverse environmental and social impacts that may result from project activities.

4.1 Adverse Environmental Impacts

Minor and site-specific negative environmental and social impacts may result from activities under **Component 3: Seaweed Value Chains (production + processing + marketing)**. This Component requires working with organized producers (organized into associations or cooperatives) to pilot farms in areas farther than current sites (i.e., off-the-coast or off-shore) that will serve as proof of concept for seaweed production in these environments.

As part of this Component, demonstration farms will be established within national marine spatial plan (MSP) frameworks, and with the specific goal of advancing uniformly accepted risk assessment, rapid alert systems and data collection in order to develop safe modes of production, focusing on food safety, occupational safety and environmental safety and in order to overcome barriers of insufficient information that directly limit off-take agreements amongst global supply chain actors, contribute to the low level of regulations, and represent a barrier for insurability.

In Vietnam, farms will be established in the following locations:

	Location	Seaweed Species	Description
1	Phuoc Dinh Commune, Thuận Nam District, Ninh Thuan Province, Vietnam	<i>Kappaphycus (1)</i>	Off-the-coast (approx. 2 km from shoreline; 5+m depth) Zone D (5m); Floating net
2	Van Ninh district, Khanh Hoa (Van Phong Bay)	<i>Kappaphycus (1)</i>	Off-the coast Floating net
3	Ninh Hoa town, Khanh Hoa (<i>Caulerpa lentillifera</i>)	<i>Caulerpa (2 farms considered as 1 site)</i>	Earth pond and Nearshore coastal plot

(a) Component 3: Demonstration Farms

The adverse environmental impacts of activities envisioned as part of the farm’s assembly and operationalization (Activity 3.1.1.5, Assemble and commence operation) include the following:

- *Weather risks*: climate change is recognized as the most significant environmental risk for seaweed farming. It may result in adverse weather conditions (e.g., typhoons, monsoons), high waves, and changing sea temperature that may damage the seaweed growth.
- *Entanglement of sea turtles and dugongs*: the seaweed farming contributes to the improvement of the natural habitat and may attract sea turtles, dugongs and other endangered sea species to the farms’ area, who may then be caught in the farmers’ nets. The

Nui Chua Biosphere Reserves (in Ninh Thuan) supports Vietnam's 2nd most prolific turtle nesting site, with estimated up to 50 nests a year.

- *Damage to the local fauna:* an inappropriate placement of the farms may damage the local fauna, such as coral reefs.
- *Biological risks* such as pests, grazers and predators, endo- and epiphytes, and diseases impact on the growth of the demonstration crops. These may include the red tides phenomenon, which has been observed in some areas, such as an outbreak of *Noctiluca scintillans* in Van Phong Bay. Research on coastal toxic algae and red tide shows that some microalgae species tend to grow seasonally every year, especially from March to September, causing damage to the aquaculture in coastal waters. Fish predation is another risk that might occur.
- *Chemical risks* such as pollution from agricultural and domestic runoffs, oil spills, unsuitable water parameters in growing area may render the area unsuitable for a seaweed demonstration farm.
- *Pollution:* while seaweed farming in itself does not involve pollution, some of the tying materials are made of plastics, which may let loose and get into the sea.

(b) Component 3: Small-Scale Enterprises

Minor and site-specific negative environmental and social impacts may also result from **Output 3.1.2: Implementation of at least 2 seaweed value chain initiatives**. This activity will include construction works at a local *Kappaphycus* seedling hatchery facility. Establishing the hatchery will help provide good quality and large volume of seedlings, and it is anticipated to significantly improve the growth rate and productivity in pilot farms, which can be profiled and scaled up in other areas. Supplied with a more reliable supply of seedlings and at sufficient volumes, farmers can achieve more cycles for *Kappaphycus alvarezii* and also, in the warmer season, *Kappaphycus striatus* or *Euचेuma denticulatum*.

The construction of the facility may trigger construction-related risks as well as operational risks. Construction related risks include pollution, dust, noise, waste, and occupational health and safety issues. Operational risks may include waste generated from the facility and occupational health and safety risks that may result from accidents or personal injuries.

A detailed overview of these impacts, potential mitigation measures, and responsible authorities is provided in Table 1 below.

4.2 Environmental Mitigation Measures

Table 3. Anticipated Environmental Impacts and Mitigation Measures

Potential impact	Proposed mitigation measures	Responsible party
<i>Component 3: Establishment and operation of demonstration farms</i>		
<i>Weather risks:</i> adverse weather conditions (e.g., typhoons, monsoons), high waves, and changing sea temperature that may damage the seaweed growth.	<p>The project will use cultivars that are tolerant to temperature fluctuations, especially higher water temperature.</p> <p>Timing of crops will be informed by local knowledge and long-term forecasts to avoid the months when typhoons or monsoons occur.</p> <p>The project will employ a culture system and use structures that provide protection to the crop from strong winds and rough seas.</p> <p>Sites will be located in areas that are reasonably sheltered from strong winds and currents.</p>	<p>Project technician for implementation</p> <p>Selected contractors for implementation</p> <p>Safeguards /Gender/M&E Specialist for monitoring</p>
<i>Entanglement of sea turtles and dugongs:</i> the seaweed farming contributes to the improvement of the natural habitat and may attract sea turtles, dugongs and other endangered sea species to the farms' area, who may then be caught in the farmers' nets.	<p>The field personnel will be instructed to regularly inspect the farm and free any dugong or sea turtle found entangled in the ropes.</p> <p>Awareness raising will be carried out among farmers to ensure that they are fully familiar with the relevant legislation and rules that protect marine life. This will include the dissemination of pictures of endangered species, visual materials that provide relevant information regarding the legal status of species, etc.</p> <p>Farms will be selected in locations where sea turtles are less likely to be present.</p>	<p>Project technician for implementation</p> <p>Selected contractors for implementation</p> <p>Safeguards/Gender/M&E Specialist for monitoring</p>
<i>Chemical risks</i> such as pollution from agricultural and domestic runoffs, oil spills, unsuitable water parameters in growing area renders the area	<p>The sites selected are in areas that are not exposed to heavy runoffs from land-based activities and with sufficient chemical and dissolved oxygen content.</p> <p>Offshore and deeper waters are generally safe from industrial, agricultural, and domestic discharges, and well oxygenated.</p>	<p>Project technician for implementation</p> <p>Selected contractors for implementation</p>

unsuitable for a seaweed demonstration farm.	Consultations have also confirmed the sites are designated solely for seaweed farming and will be outside the navigation routes for fishing and transport vessels	Safeguards/Gender/M&E Specialist for monitoring
<i>Pollution:</i> while seaweed farming in itself does not involve pollution, some of the tying materials are made of plastics, which may let loose and get into the sea.	It will be ensured as part of bidding documents that proper materials are used for the ropes and pollution is avoided Awareness raising will be carried out among farmers regarding the appropriate usage of ropes and how to avoid pollution	Project technician for implementation Selected contractors for implementation Safeguards/Gender/M&E Specialist for monitoring
<i>Biological risks</i> such as pests, grazers and predators, endo- and epiphytes, and diseases impact on the growth of the demonstration crops. Red tide is one of the major risks in this respect.	Sites are being selected that pose minimal risks from these factors; deeper offshore waters are generally less prone to epiphyte and endophyte infestation. Disease-resistant planting materials will be sourced and used for the demonstration crop (as mentioned above, providers of these quality materials have been engaged).	Project technician for implementation Selected contractors for implementation Safeguards/Gender/M&E Specialist for monitoring
<i>Damage to the local fauna:</i> an inappropriate placement of the farms may damage the local fauna, such as coral reefs.	The farms would not be placed on live corals A strict protocol will be developed and used on how farm sites will be selected Farm location will be carefully selected to avoid any damage to the local fauna	Project technician for implementation Selected contractors for implementation Safeguards/Gender/M&E Specialist for monitoring
Component 3: Small-scale enterprises (construction works at the hatchery facility; the operation of the facility)		
<i>Noise disturbance:</i> Possible noise disturbance as a result of outdoor	<i>Pre-construction:</i> requirements to limit noise pollution should be included in the bidding documents, as a precondition for the contractor's selection	Project technician for implementation

<p>equipment usage and transportation vehicles driving around the construction site</p>	<p><i>During construction:</i></p> <ul style="list-style-type: none"> • Noise level control should be performed before the start up of construction activities; • The equipment should be fitted with appropriate noise devices that will reduce sound level; • The construction work should not be permitted during the nights, the operations on site shall be restricted to the hours 7am—7pm; • Vehicles that are excessively noisy shall not be operated until corrective measures have been taken; 	<p>Selected contractors for implementation</p> <p>Safeguards/Gender/M&E Specialist for monitoring</p>
<p>Air quality: dust as a result of construction works and possible emissions from transportation vehicles</p>	<p><i>Pre-construction:</i> requirements to limit emissions should be included in the bidding documents, as a precondition for the contractor’s selection</p> <p><i>During construction:</i></p> <ul style="list-style-type: none"> • Construction site, transportation routes and materials handling sites should be water-sprayed on dry and windy days; • Construction materials should be stored in appropriate and covered places to minimize dust; • Before allowing vehicles on site, fitness and emission test of the vehicle shall be performed; • Vehicle loads likely to emit dust need to be covered; • Workers should wear protective masks if dust appears; • Vehicle speed should be restricted within the construction site; • Regular maintenance of the vehicles and construction machinery should be performed in order to reduce any leakages of motor oils, emissions and dispersion of pollution; • Burning of debris from ground clearance shall be prohibited. 	<p>Project technician for implementation</p> <p>Selected contractors for implementation</p> <p>Safeguards/Gender/M&E Specialist for monitoring</p>

<p>Waste: generation of waste as a result of construction activities as well as during the operation of the facility</p>	<p><i>Pre-construction:</i> requirements for appropriate waste management should be included in the bidding documents, as a precondition for the contractor's selection</p> <p><i>During construction:</i></p> <ul style="list-style-type: none"> • Identification of the different waste types at the project site (soil, asphalt, food, etc.); • Ensure that camps are located away from existing stream, river, or water sources, and that no discharge from camps is made into nearby water bodies; • Proper containers/waste bins should be provided at the project site; • Dumping of waste on the sides of the road, on private land, or in other non-designated places should be prohibited; • Dumping waste shall be prohibited on fragile slopes, forests, religious or other culturally sensitive areas or areas where livelihood is derived; • Collection, transportation and final disposal of all waste should be undertaken regularly (weekly) • Possible hazardous waste (motor oils, vehicle fuels, etc.) should be collected separately and authorized collector and transporter should be sub-contracted to transport and finally dispose; • All construction materials should be covered during the transportation to avoid waste dispersion; • The options for reuse/recycling of the generated waste streams should be taking into consideration (e.g. excavated soil, etc.); • Burning of construction waste should be prohibited. <p><i>After construction:</i></p>	<p>Project technician for implementation</p> <p>Selected contractors for implementation</p> <p>Safeguards/Gender/M&E Specialist for monitoring</p>
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	<ul style="list-style-type: none"> • All waste shall be removed from the project site. <p><i>During operation:</i></p> <ul style="list-style-type: none"> • Trash bins should be installed in the facility • No waste should be thrown outside of the facility • Waste should be regularly collected (at least once a week) 	
<p>Water quality: contamination of local water sources may occur due to wastewater and sewage from construction sites</p>	<p><i>Pre-construction:</i> requirements for appropriate measures to prevent water contamination should be included in the bidding documents, as a precondition for the contractor's selection.</p> <p><i>During construction:</i></p> <ul style="list-style-type: none"> • An environment-friendly toilet (e.g., pit toilet) and washing facilities should be made available, built with locally available materials • Open defecation in the vicinity of project sites should be prohibited • Throwing waste in water sources should be prohibited • Possible hazardous waste (motor oils, vehicle fuels, lubricants) should be collected separately and authorized entity should be transporting and disposing the hazardous waste; <p><i>After construction:</i></p> <ul style="list-style-type: none"> • Pit toilets are dismantled and pits are covered • All waste is removed from the project site 	<p>Project technician for implementation</p> <p>Selected contractors for implementation</p> <p>Safeguards/Gender/M&E Specialist for monitoring</p>

4.3 Adverse Social Impacts

While project activities aim to strengthen the sustainable livelihoods of local communities, it may also result in some adverse social impacts.

(a) Component 2: Site-specific development plans

Minor and site-specific negative social impacts may result from activities under *Component 2: Enabling Environment for Seaweed Aquaculture in VN* include the following.

As part of Component 2, the project will fund plans and assessments to identify areas suitable for seaweed farming, taking into account ecosystem carrying capacity, climate change scenarios, and existing uses to minimize any user conflict. These assessments will help inform coastal and marine spatial maps for seaweed aquaculture expansion. For suitable areas, the project will support site-specific development plans to ensure the enabling conditions are in place to establish and operationalize seaweed farms. In addition, the project will support National Seaweed Plans. In Viet Nam, the project will support D-Fish and MARD to develop a 10-year Seaweed Development Plan.

Activities under this component will include:

- 2.1.1.2 The development of seaweed area management plans for 2 pilot sites including: carrying capacity assessment; risk assessment; conflict assessment and potential mitigation measures; as well as applying plans to MSP and/or provincial planning.
- 2.1.1.4 Identifying, mapping and assessing the carrying capacity of – and developing an area management plan for – an expansion area for seaweed farming in another off-shore environment (where *Kappaphycus* is the farmed demonstration species).

Currently the provincial level planning does not apply seaweed development planning processes. However, such planning is recognized as best practice to ensure the full potential for sustainable seaweed is realized. To deliver this output, the project will define a process for developing seaweed development plans. The project will pilot this development planning process in 2 pilot seaweed sites on *Kappaphycus* (in Ninh Thuan and Khanh Hoa) and 1 pilot site (actually 2 adjacent sites, one in an earthen converted shrimp pond and the other on the nearshore area close to the pond) for *Caulerpaceae* in Khanh Hoa.

These activities may result in **social tensions** as some community members may greatly benefit from site-specific development maps that would make them eligible to take part in project activities, while others may be left behind. Vulnerable community members may thus be further marginalized.

Further, site-specific development plans may **affect and change the current access and usage rights of natural resources in project sites**. These activities may result for the short-term in land and sea use conflicts among different communities or among members of the same community. Conflicts and tensions may also be triggered due to the criteria for changing the current usage practices and rights. This is particularly worrisome given the existing competition between seaweed farmers and other fishermen and enterprises in project sites. Livelihood restoration measures should be undertaken to mitigate the adverse impacts of access and usage restrictions on project affected people and other relevant stakeholders. These are specified in the Process Framework in section 4.5 below.

(b) Component 3: Cooperatives & Demonstration Farms

Minor and site-specific negative social impacts may result from activities under *Component 3: Seaweed Value Chains (production & processing)*, activity 3.1.1.2 “Establish seaweed farmer

cooperative (incl. private sector) in for Zone D pilot farm” and Activity 3.1.1.5 “Assemble and commence operation.”

As part of Activity 3.1.1.2., it is planned to establish a “seaweed farmer cooperative (incl. private sector) for the Zone D pilot farm,” and develop together with the Cooperative the farm management plan, including enterprise plan, record keeping system, resource needs, etc. (Activity 3.1.1.4).

Developing farm management plans and models that demonstrate the technical feasibility and commercial viability of the pilot seaweed farms will require strong participation from local value chains supported by a governance structure that ensures their meaningful engagement. Accordingly, farmer cooperatives will be formed at all 3 pilot sites, including two for *Kappaphycus* and one for *Caulerpa*. In addition to direct engagement in the pilot farms (especially farm management plan/model), the cooperatives formed – of raw producers as well as other segments of the supply chain including processing companies and/or suppliers – will offer improved governance over the broader seaweed development planning in the identified zones near or surrounded by the pilot sites.

Seaweed farmers who are not members of the cooperative will be able to resume farming in their current locations and any form of economic displacement will be avoided. However, several adverse social impacts may arise.

- **Selection criteria for participation in cooperatives**

Only cooperative members will be able to directly benefit from the off-shore farms, social conflicts may arise as a result of eligibility and membership criteria required to participate in the coop. While cooperative membership is generally open for all farmers in the project site, cooperative members would be required to pay a membership fee, and vulnerable households may thus be unable to take part in the cooperative. Further, the number of cooperative members is likely to be restricted, thus limiting the number of potential beneficiary households.

- **Power asymmetries**

Project activities may result in power asymmetry in the community by which the members with more power tend to appropriate the major roles in and benefits from the project, while excluding more vulnerable community members.

- **Conflicts with other fishermen and local community**

Seaweed farming is currently in competition with other economic activities in the area (i.e. tourism, aquatic animal culture, fishing, navigation, energy production, etc.), and the planned demonstration farms may be disturbed by these other activities. For instance, local community members and farmers who are not part of the cooperatives may steal the farms’ crop. Competition may arise between seaweed farmers and fishermen who catch shrimps and snails. The passage of fishermen’s boats may also damage the farm and the crop.

- **Exclusion of women**

A serious concern is the potential marginalization of women, at least in the care and harvesting of the crop, because they would have more difficulty in accessing the offshore. While women are engaged in seaweed farming equally as men, they typically work on-shore, enabling them to take care of household chores and children. Deeper seaweed sites (which also pose greater risks) are typically farmed by men, and the off-shore sites would also be mostly accessed by men.

- **Child labor**

It is culturally habitual that children help their parents with farming activities on shore. Children are typically engaged in these activities in their spare time, after they finish school, and they do not come at the expense of their education. However, the risk of child labor that would obstruct education or be overly demanding cannot be fully discarded.

- **Job loss resulting from supply chains changes**

The seaweed supply chain currently includes collectors, who collect fresh seaweed from farmers and transfer it to processing facilities. The function of collectors would become obsolete as a result of project activities, as farmers would be directly connected to processing facilities, thus resulting in job loss for some of the local residents.

- **Cultural challenges**

Project activities will be implemented within a closely tied and homogenous community that has been engaged in seaweed farming for generations, and that relies on traditional farming methods. Culturally inappropriate project delivery may hamper relationships with and social acceptability by the community of the project.

- **Community health and safety, and particularly the COVID-19 pandemic**

Local community members may be exposed to a variety of health risks, including COVID-19 pandemic, as a result of interaction with project workers who would be engaged in the establishment of the demonstration farms, as well as construction works at the hatchery facility.

- **Occupational health and safety, and particularly the COVID-19 pandemic**

Workers that will be engaged in the establishment and operationalization of the demonstration farms will work off-shore and may be exposed to a variety of occupational hazards, as well as the COVID-19 pandemic. This includes workers who would be engaged in the establishment of the demonstration farms, as well as construction works at the hatchery facility and the subsequent operation of the facility.

A detailed overview of these impacts, potential mitigation measures, and responsible authorities is provided in Table 2 below.

4.4 Social Mitigation Measures

Table 4. Anticipated Social Impacts and Mitigation Measures

Potential impact	Proposed mitigation measures	Responsible party
<p>1. Changes in the current access and usage rights of natural resources and livelihoods in project sites</p>	<p>The Process Framework (section 4.5) details the mitigation measures</p>	<p>Project technician for implementation</p> <p>Selected contractors for implementation</p> <p>Safeguards and Gender Specialist for monitoring</p>
<p>2. Social tensions resulting from site-specific development plans: some community members may greatly benefit from site-specific development maps that would make them eligible to take part in project activities, while others may be left behind. Vulnerable community members may thus be further marginalized.</p>	<p>The development of site-specific plans will be carried out in a participatory manner, through community consultations that will be organized by professional facilitators. Special efforts will be undertaken to proactively engaged the most vulnerable community members. Those in the seaweed aquaculture sector, fisheries sector and other sectors will all need to be engaged.</p> <p>Detailed community engagement activities are provided in the Stakeholders Engagement Plan.</p>	<p>Project technician for implementation</p> <p>Selected contractors for implementation</p> <p>Safeguards/Gender/M&E Specialist for monitoring</p>
<p>3. Selection criteria for participation in cooperatives: only cooperative members can directly benefit from project activities. While membership will be open to all community members, the requirement to pay membership fees may exclude vulnerable households and the number of participating households is</p>	<p>Detailed and clear guidelines shall be developed in a participatory manner and in close consultations with the local community to establish the criteria for cooperative membership, participation, and management. Vulnerable community members (female-headed households, disabled persons, widows/widowers, elderly, youth) will be prioritized for cooperative membership.</p> <p>Cooperative members that are unable to pay due to the economic conditions of their households will be supported by the project, and their membership fees would be subsidized.</p>	<p>Project technician for implementation</p> <p>Selected contractors for implementation</p> <p>Safeguards/Gender/M&E Specialist for monitoring</p>

likely to be limited, restricting the number of beneficiaries.		
4. Power asymmetries: Project activities may result in power asymmetry in the community by which the members with more power tend to appropriate the major roles in and benefits from the project, while excluding more vulnerable community members.	With organized groups that are managed professionally, the probability of this risk arising would be low. The project will engage and provide opportunities for meaningful participation of all community members.	Project technician for implementation Selected contractors for implementation Safeguards/Gender/M&E Specialist for monitoring
5. Conflicts with other fishermen and local community: the demonstration farm may be disturbed by other fishermen's boats, and crops may be stolen by local community members.	<p>The Project has consulted with the Local Governments and the local communities, to obtain information and assurance – backed by local regulation -- that the site of the project does not obstruct navigation and does not prevent fishers from accessing fishing grounds.</p> <p>Regular patrols by farmers will be carried out to ensure the safety and security of the demonstration farm. Detailed guidelines for patrol operations will have to be developed in collaboration with the farmers and local communities.</p> <p>An area management plan that comprises good management practices and safety standards for the identified seaweed farm site will be developed to avoid negative impacts of the farm operation on the environment and thus to other users of the same marine landscape.</p> <p>Project authorities will closely monitor activities to ensure that causes for conflicts are minimized.</p>	Project technician for implementation Selected contractors for implementation Safeguards/Gender/M&E Specialist for monitoring
5. Exclusion of women: project activities may result in the potential marginalization of women, at least in the	The project will include a variety of activities to support female entrepreneurship in project sites. This will include the establishment and operationalization of a small-scale enterprise that will be managed and	Project technician for implementation

<p>care and harvesting of the crop, because they would have more difficulty in accessing the offshore, deeper seaweed sites (which also pose greater risks) than they have now to the nearshore, shallow and at most chest deep growing areas.</p>	<p>operated by an organized women's group, and a training program for local women on e-commerce platforms, including e-tail site development, online marketing, etc.</p> <p>Additional measures to support women's engagement are provide in the Gender Action Plan, attached to the Project Document.</p>	<p>Selected contractors for implementation</p> <p>Safeguards/Gender/M&E Specialist for monitoring</p>
<p>6. Child labor: it is culturally habitual that children help their parents with farming activities on shore.</p>	<p>The project team will carry out awareness raising among local farmers to explain the risks of child labor, and ensure that children are not engaged in any project-related works.</p>	<p>Project technician for implementation</p> <p>Selected contractors for implementation</p> <p>Safeguards/Gender/M&E Specialist for monitoring</p>
<p>7. Collectors' job loss as a result of supply chain changes: The function of collectors would become obsolete as a result of project activities, as farmers would be directly connected to processing facilities, thus resulting in job loss for some of the local residents.</p>	<p>The project team will aim to integrate seaweed collectors into project activities and assist them to assume new functions as part of the seaweed supply chain (e.g., as part of the cooperatives, processing facilities, etc.).</p>	<p>Project technician for implementation</p> <p>Selected contractors for implementation</p> <p>Safeguards/Gender/M&E Specialist for monitoring</p>
<p>8. Cultural challenges: Culturally inappropriate project delivery may hamper relationships with and social acceptability by the community of the project.</p>	<p>The project team will work with local community facilitators, opinion leaders and organized farmer and women groups, the project 1) will ensure appropriate community protocols are followed, does not debase local culture and traditions; and (2) be sensitive to local issues that have the potential to turn into problems, and plan and carry out ways to resolve them before they escalate into a social conflict.</p>	<p>Project technician for implementation</p> <p>Selected contractors for implementation</p> <p>Safeguards/Gender/M&E Specialist for monitoring</p>

<p>9. Workers' health and safety as a result of occupational hazards during the establishment of the demonstration farms, the construction works at the hatchery facility, as well as the operation of the facility.</p>	<p>Project technicians and the implementing contractors shall provide a safe and healthy work environment, taking into account physical, chemical or biological risks that may be inherent in project activities—especially off-shore. They shall also take steps to prevent accidents, injury, and disease arising from, associated with, or occurring in the course of work by minimizing, as far as reasonably practicable, the causes of hazards. In a manner consistent with good international industry practice, the implementing contractor shall (i) identify potential hazards to workers, particularly those that may be life-threatening; (ii) provide preventive and protective measures, including modification, substitution, or elimination of hazardous conditions or substances; (iii) train workers as necessary; (iv) document and report occupational accidents, diseases, and incidents; and (v) undertake emergency prevention, preparedness, and response arrangements.</p> <ul style="list-style-type: none"> • Ensure regular health screening for the workers pre and during construction activities • Ensure that no underage workers, or children are engaged • Ensure decent work conditions, including an appropriate salary, working hours, accommodation and food for workers shall be provided to all workers • Ensure that workers are employed on the principle of equal opportunity and fair treatment, and there is no discrimination with respect to any aspects of the employment relationship, such as recruitment and hiring, compensation (including wages and benefits), working conditions and terms of employment, access to training, job assignment, promotion, termination of employment or retirement, and disciplinary practices • Implement a grievance mechanism for workers (and their organizations, where they exist) to raise workplace concerns 	<p>Project technician for implementation</p> <p>Selected contractors for implementation</p> <p>Safeguards/Gender/M&E Specialist for monitoring</p>
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	<p>With regards to COVID-19, advisories on precautionary, exigency, and emergency measures by WHO and the government health authority will be heeded and complied with. These will be brought to the attention of all project personnel and anyone doing personal transaction with any project staff for the purpose of having a common understanding and as much as possible mutual agreement of the need for and benefits of compliance.</p>	
<p>10. Local community's health and safety as a result of occupational hazards during the establishment of the demonstration farms and the construction works at the hatchery facility.</p>	<p>Project and the implementing contractors shall evaluate the risks and impacts to the health and safety of the affected community during the implementation of project activities, and shall establish preventive measures to address them in a manner commensurate with the identified risks and impacts.</p> <p>Project activities shall prevent adverse impact on the quality and supply of water to local communities, ensure the safety of construction infrastructure and equipment, introduce protective mechanisms for the use of hazardous materials; and undertake all necessary emergency preparedness and response measures.</p> <p>Specific measures include the following:</p> <ul style="list-style-type: none"> • Ensure the safety of all project-related equipment, in line with the requirements above; • Minimize the use of hazardous materials, and ensure that community members are not exposed to them. In case that the use of such materials is necessary, provide sufficient notice to local community members and inform them on safety and protection measures; • Avoid dumping any waste or otherwise contaminating community sources of water supply and water quality; • Provide information to local communities on construction activities and plans. 	<p>Project technician for implementation</p> <p>Selected contractors for implementation</p> <p>Safeguards/Gender/M&E Specialist for monitoring</p>

	<p>With regards to COVID-19, advisories on precautionary, exigency, and emergency measures by WHO and the government health authority will be heeded and complied with. These will be brought to the attention of all project personnel and anyone doing personal transaction with any project staff for the purpose of having a common understanding and as much as possible mutual agreement of the need for and benefits of compliance.</p>	
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4.5 Process Framework: Livelihood Restoration Measures

The development of site-specific management plans as part of the project may result in restrictions of access to livelihoods and natural resources for local communities. This may include local fishermen who may lose access to fishing areas; local SMEs that are engaged in tourism, aquatic animal culture, fishing, navigation, energy production, or other forms of business; or any other stakeholders whose livelihoods may be affected as a result of project activities.

Any change of land use, sea use or new zonation should be based on free and prior informed consultations of the affected communities and relevant authorities, which should be carried out prior to finalizing any usage changes.

If the planned spatial seaweed zonation negatively impacts sources of economic income or other types of livelihoods of affected communities, full and timely compensation shall be provided to all affected individuals, irrespective of their formal land title. All affected communities and households around the project-supported areas will be provided with opportunities to restore their livelihoods to at least pre-project levels.

Livelihoods-related support during project implementation will be provided to the households (HH) of all communities impacted by project-induced restrictions of access to natural and community resources within the targeted areas. This process will be organized in the following manner:

- *Screening*

The Safeguards/Gender/M&E Specialist at D-Fish, with technical inputs from the Project Technicians, will undertake a screening of all planned activities for likely access restrictions to local communities. This will include both communities that reside in project-affected areas, and individuals that may lack title.

- *Social assessment*

If the screening confirms and identifies HHs affected due to access restriction to natural resources, a social assessment (SA) process based on participatory consultations with affected peoples will be carried out. The SA will generate the necessary baseline information on demographics, social, cultural, and economic characteristics of affected communities, as well as the land and territories that they have traditionally owned or customarily used or occupied, and the natural resources on which they depend. The SA will assess potential impacts and the extent of restriction of access to resources along with suitable mitigation and enhancement measures including options for alternative access to similar resources.

- *Livelihood Restoration Plans*

Based on the findings of the screening and social assessment, if livelihoods will be negatively affected by project activities, an action plan that is known as a Livelihood Restoration Plan (LRP) will be prepared after holding further meaningful consultations with affected peoples and stakeholders which will provide tailored livelihood support and benefit sharing for affected persons, groups and communities.

The LRPs will be site-specific and include the following issues: (1) providing information regarding the site-specific impacts; (2) setting out criteria and eligibility for livelihood assistance; (3) outlining the rights of persons who have been either customarily or legally/illegally using sea or land resources for subsistence to be respected; (4) describing and identifying available mitigation measures alternatives, taking into account the provisions of applicable local legislation, and the available measures for mitigation promoted via project activities and considering any additional sound alternatives, if proposed by the affected persons; (5) outlining specific procedures on how compensation can be obtained.

- *Mitigation measures as part of the LRPs*

Participatory and inclusive consultations should be carried out with affected communities, individuals, and stakeholders to agree on the allocation of alternative livelihoods. Eligibility criteria should be established according to guidelines provided in Section 5.7 Community Engagement of the ESMF/PF.

Alternative livelihood schemes should be discussed, agreed upon and provided for affected persons/ groups. The livelihood options to be built on and be based upon the traditional skills, knowledge, practices and the culture/world view of the affected peoples/groups and persons.

Affected persons should be provided project-related livelihood support and other opportunities as part of the planned project activities. These may include activities implemented as part of the following outcome:

- Outcome 3.1: Improved technologies and testing for seaweed value chains
- Outcome 3.2: Generating benefits from seaweed aquaculture for target communities

An accessible and efficient grievance redress mechanism should be established and made functional (see Section 5.9 of this ESMF/PF).

Any proposed measures should be closely coordinated with PAPs to ensure that they fully reflect their needs and priorities.

- *Compensation*

In case that compensation is awarded, it shall be calculated based on the replacement value of these livelihoods (economic market value plus any replacement costs) by the Safeguards/Gender/M&E Specialist at D-Fish. In cases where compensation will consist of the allocation of alternative resources (e.g., alternative fishing areas), measures will include identification of these resources with the active involvement of the affected persons/ communities and assistance to access these resources. Detailed procedures on how compensation should be calculated and awarded should be provided in each site-specific LRP based on local conditions.

5. IMPLEMENTATION ARRANGEMENTS

5.1. Procedures for the Identification and Management of Environmental and Social Impacts

The following activities will not be financed by the Seaweed project:

1. Activities that involve procurement or use of any pesticides categorized IA, IB, or II by the World Health Organization;
2. Activities that require private land acquisition;
3. Activities that require physical displacement of persons from their homes or legal businesses, irrespective of ownership;
4. Activities that involve felling of trees in core zones and in critical watershed areas;
5. Activities that involve quarrying and mining;

In advance of the initiation of any project activity, the Safeguards/Gender/M&E Specialist at D-Fish should fill in detailed information regarding the nature of the activity and its specific location in the *Safeguards Eligibility and Impacts Screening* form (Annex 1). Part 1 of this form comprises of basic information regarding the activity; Part 2 contains basic “pre-screening” questions. If the response to any of the questions in these two parts is “Yes”, the activity will be deemed ineligible for funding under the Project. The executing partners will thus be required to change the nature

or location of the proposed activity so that it complies with all safeguards requirements and all responses at the *Safeguards Eligibility and Impacts Screening* form are negative.

If the activity is deemed eligible according to Part 2, an environmental and social screening procedure will be carried out in accordance with Part 3 of *Safeguard Eligibility and Impacts Screening* format, which is based on the WWF's SIPP and applicable Vietnamese laws and regulations. The executing partners shall respond to the specific questions in Part 3 of the form, provide general conclusions regarding the main environmental and social impacts of each proposed activity, outline the required permits or clearances, and specify whether any additional assessments or safeguard documents (e.g., ESMP) should be prepared.

Issues that are considered as part of this environmental and social screening include the following:

- a. Need for government-land acquisition;
- b. Environmental impacts (e.g., dust, noise, smoke, ground vibration, pollution, flooding, etc.) and loss or damage to natural habitat;
- c. Social impacts: identification of vulnerable groups, impacts on community resources, impacts on livelihoods and socio-economic opportunities, restrictions of access to natural resources, land usage conflicts, etc.; and
- d. Health and safety issues (both for workers and for local communities).

The screening of each activity should be undertaken by the Safeguards/Gender/M&E Specialist at D-Fish. If the screening process indicates that additional assessments or safeguards documents shall be prepared, these should be carried out by the executing partners prior to the start of activities.

If the screening reveals adverse environmental or social impacts that may arise from the planned activity, an ESMP should be prepared. The ESMP should be prepared by the Safeguards/Gender/M&E Specialist at D-Fish, in collaboration with the Project Technicians.

5.2. Guidelines for ESMP Development

In case that the Environmental and Social screening process identifies any adverse environmental or social impacts as a result of specific project activities, the Safeguards/Gender/M&E Specialist in collaboration with the Project Technicians should develop a site- and activity-specific ESMP. The ESMP should be prepared before the initiation of the project activity and closely follow the guidance provided in this ESMF.

The ESMP should describe adverse environmental and social impacts that are expected to occur as a result of the specific project activity, outline concrete measures that should be undertaken to avoid or mitigate these impacts, and specify the implementation arrangements for administering these measures (including institutional structures, roles, communication, consultations, and reporting procedures).

The structure of the ESMP should be as follows:

- (i) **A concise introduction:** explaining the context and objectives of the ESMP, the connection of the proposed activity to the project, and the findings of the screening process.
- (ii) **Project description:** Objective and description of activities, nature and scope of the project (location with map, construction and/or operation processes, equipment to be used, site facilities and workers and their camps; bill of quantities if civil works are involved, activity schedule).

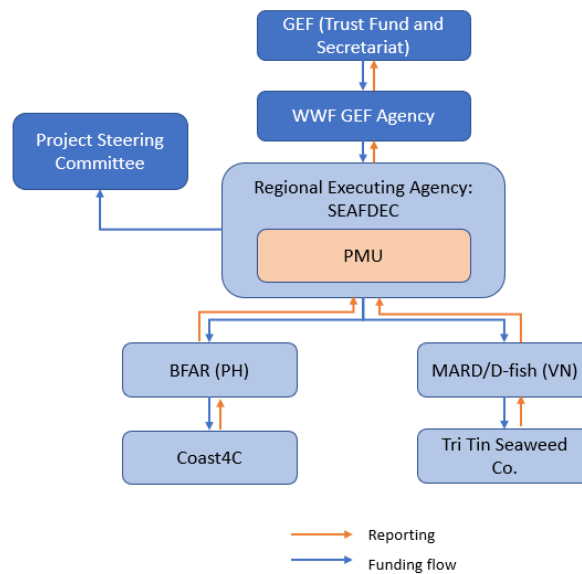
- (iii) **Baseline environmental and social data:** Key environmental information or measurements such as topography, land use and water uses, soil types, and water quality/pollution; and data on socioeconomic conditions of the local population. Photos showing the existing conditions of the project sites should also be included.
- (iv) **Expected impacts and mitigation measures:** Description of specific environmental and social impacts of the activity and corresponding mitigation measures.
- (v) **ESMP implementation arrangements:** Responsibilities for design, bidding and contracts where relevant, monitoring, reporting, recording and auditing.
- (vi) **Capacity Need and Budget:** Capacity needed for the implementation of the ESMP and cost estimates for implementation of the ESMP.
- (vii) **Consultation and Disclosure Mechanisms:** Timeline and format of disclosure.
- (viii) **Monitoring:** Environmental and social compliance monitoring with responsibilities.
- (ix) **Grievance Mechanism:** Provide information about the grievance mechanism, how PAPs can access it, and the grievance redress process.
- (x) **A site-specific community and stakeholder engagement plan:** In order to ensure that local communities and other relevant stakeholders are fully involved in the implementation of the ESMP, a stakeholder engagement plan should be included in the ESMP. Specific guidelines on community engagement are provided in Section 5.8 below.

5.3. Stakeholders' Role & Responsibilities in the ESMF Implementation

(a) General

The institutional arrangement (Figure 3) for project implementation includes WWF as the GEF Agency, the Southeast Asian Fisheries Development Center (SEAFDEC) as the Lead Regional Executing Agency (its Secretariat in Bangkok, Thailand will host the Project Management Unit), the Bureau of Fisheries and Aquatic Resources (BFAR) of the Philippines and Directorate of Fisheries (D-fish) of Viet Nam as the project executing partners in the Philippines and Viet Nam, respectively, and a Project Steering Committee.

Figure 3. Project Institutional Arrangement



Blue lines depict the flow of funding, orange lines the reporting flow

Regional executing agency: SEAFDEC is the **Lead Executing Agency** for the project, which will be responsible for overseeing the implementation of project activities, including disbursing and administering funds to BFAR and D-fish. As part of its responsibilities, SEAFDEC will host a Project Management Unit (PMU) at headquarters (Bangkok, Thailand). The PMU will be responsible for the day-to-day management of the project, including project administration (including issuing sub-grants), project management, and monitoring and reporting. The PMU will be comprised of a Project Manager, a Finance and Administrative Officer, and a Technical Specialist. Specialist support services will be provided by an M&E Specialist and Communications Specialist, who are to be engaged with short-term contracts.

National executing agency: The national partner responsible for project implementation in Vietnam is D-Fish, which is responsible for national-level project management and delivery of Component 2 and 3 (with contributions to Component 4). It will report to SEAFDEC and the PMU.

D-Fish will establish a national project management unit responsible for project management and executing some activities. The unit will include 5 specialists: Project Manager; 2 Project Technicians; 1 Finance Officer; and 1 Safeguards/Gender/M&E Specialist. D-fish is responsible for contracting and overseeing consultants and subgrantees for key activities. The Safeguards/Gender/M&E Specialist will be responsible for ensuring implementation of safeguards as detailed in this EMSF, and stakeholder engagement as detailed in the Stakeholder Engagement Plan.

Project Steering Committee (PSC): A PSC will be formed to serve as the oversight, advisory, and support body for the project. The PSC will consist of a representative from the Ministry of Agriculture and Rural Development (VN), Ministry of Natural Resources and Environment (VN), the Department of Agriculture (PH), Department of Natural Resources and Environment (PH), Seaweed Industry Association of the Philippines, and SEAFDEC. A representative from WWF-PH and WWF-VN and a member of the WWF GEF Agency team will hold an “observer status” on the Project Steering Committee.

The PSC provides overall guidance for the implementation of the project. It is responsible for approving annual work plans and budgets and reviewing and approving any changes to the project strategy alongside WWF GEF Agency.

WWF GEF Agency: WWF-US, through its WWF GEF Agency will: (i) provide consistent and regular project oversight to ensure the achievement of project objectives; (ii) liaise between the project and the GEF Secretariat; (iii) report on project progress to GEF Secretariat (annual Project Implementation Report); (iv) ensure that both GEF and WWF policy requirements and standards are applied and met (i.e. reporting obligations, technical, fiduciary, M&E); (v) approve annual workplan and budget; (vi) approve budget revisions, certify fund availability and transfer funds; (vii) organize the terminal evaluation and review project audits; (viii) certify project operational and financial completion, and (ix) provide no-objection to key terms of reference for project management unit.

(c) Safeguards Implementation

Specific arrangements and responsibilities related to the implementation of environmental and social safeguards requirements, as stated in this ESMF/PF are as follows:

Lead executing agency (SEAFDEC):

- Overall responsibility for ensuring environmental safeguards are implemented.
-

Project Steering Committee:

- Overall oversight and monitoring of compliance with safeguards commitments.
- Support and specific recommendations on specific safeguard issues if needed.

WWF GEF Agency:

- Overall oversight and monitoring of compliance with safeguards commitments.
- Support and specific recommendations on specific safeguard issues if needed.

D-Fish PMU:

- Ensuring that bidding documents and contracts include any relevant particular clauses or conditions relevant to environmental and social safeguards as set out in this ESMF. It is particularly important to include in bidding documents requirements related to occupational health and safety.
- Implementing and supervising ESMF and other safeguard plans;
- Provision of safeguard reports to the Lead Executing Agency;
- Reporting on safeguards implementation and compliance to the PSC and WWF GEF Agency.
- Overall responsibility for the operation of the grievance redress mechanism for activities in Vietnam.

Safeguards & Gender Specialist at the D-Fish PMU:

- Overall responsibility for compliance with ESMF Safeguards and other annexed documents of this report;
- Screening all project activities to identify social and environmental impacts;

- Reviewing annual work plans and budgets and analyze planned community/individual sub-projects and their environment/social impacts, in order to identify safeguards risks and initiate screenings of activities;
- Contributing to the preparation of site-specific ESMPs as needed;
- Ensuring the inclusion of safeguards requirements in all project bidding documents and contracts;
- Monitoring contractors' compliance with safeguards requirements;
- Conducting consultation meetings with local stakeholders as required, informing them, updating them on the latest project development activities;
- Carrying out regular site inspections;
- Reporting on safeguards implementation and compliance to the PMU Project Manager and to SEAFDEC;
- Disclosing of safeguards documents;
- Ensuring that consultations with local communities are carried out in an inclusive and participatory manner, and are well documented;
- Monitoring the state of safeguards implementation, and ensure that sub-projects are implemented in accordance to best practices and guidelines set out in the ESMF;
- Identifying and liaising with all the stakeholders involved in environment and social related issues in the Project;
- Operate the project's Grievance Redress Mechanism (GRM), including compiling and reporting on project-related grievances, monitoring grievance resolution, and closing the feedback loop with the complainant.
- Carrying out field visits as necessary to monitor the implementation of project activities and their compliance with safeguard requirements;
- Providing capacity support to the PMU and other project-related stakeholders on environmental and social issues;
- Providing execution assistance and advise the Project Director as necessary on safeguards related issues including adaptive management.
- Reporting on overall safeguards performance to the Project Steering Committee, WWF GEF Agency and other stakeholders as necessary.

5.4. Monitoring

The compliance of Project activities with the ESMF will be thoroughly monitored by various entities at different stages of preparation and implementation.

- ***Monitoring at the project level***

The overall responsibility for implementing the ESMF and for monitoring compliance with the Project's environmental and social safeguard activities lies with the D-Fish PMU. The Safeguards/Gender/M&E Specialist at D-Fish shall oversee the implementation of all field activities and ensure their compliance with the ESMF. The Safeguards/Gender/M&E Specialist shall also monitor the project's grievance redress mechanism (GRM) and assess its effectiveness (i.e., to what extent grievances are resolved in an expeditious and satisfactory manner).

The Safeguards/Gender/M&E Specialist will also be responsible for reporting on overall safeguards compliance to the Project Manager at D-Fish, the Project Manager at SEAFDEC, the Project Steering Committee, and WWF GEF Agency.

- **Monitoring at the field activity level**

The Safeguards/Gender/M&E Specialist at D-Fish shall closely monitor all field activities, and ensure that they fully comply with the ESMF and with the terms and conditions included in the environment clearances issued by the Vietnamese national authorities. The Safeguards/Gender/M&E Specialist is also fully responsible for the compliance of all external contractors and service providers employed as part of the project with the safeguards requirements outlined in the ESMF and ESMP (as applicable). The Safeguards/Gender/M&E Specialist at D-Fish will provide the Project Manager at SEAFDEC with monthly monitoring reports. **Disbursement of project funds will be contingent upon their full compliance with the safeguards requirements.**

- **Monitoring at the agency level**

WWF as the project's implementing agency and SEAFDEC as the executing agency are responsible to oversee compliance with the ESMF.

In order to facilitate compliance monitoring, the PMU will include information on the status of ESMF implementation in the six-monthly Project Progress Reports (PPRs) and the annual Project Implementation Review (PIR) reports.

5.5. Community Engagement

Community consultation has been an integral part of these assessments as well as the proposed project design and will be carried out as a continuous process through the project cycle.

(a) Community engagement during Project Preparation

The project design process involved in-depth engagement with key stakeholders in the project. Full details regarding workshops, stakeholder meetings, field-level consultations (including meetings with a range of local stakeholders, community groups, site visits, field inspections, and focus group discussions), presentations and interactions are provided in the Project's Stakeholder Engagement Plan (SEP).

The close engagement of stakeholders in the project preparation process as presented in the SEP ensured a high level of ownership across the various project partners and beneficiaries, and therefore an important basis for the multi-sectoral and multi-stakeholder approach foreseen for the project.

(b) Community engagement during ESMF/PF Preparation

The project preparation team held consultations and community meetings in December 2021 in Ninh Thuan and Khanh Hoa provinces.

Stakeholders involved included provincial and commune/ward level authorities, farmers, women unions, local brokers and companies, and other stakeholders. Overall, 33 individuals participated in consultations, 24% of whom were women.

The objectives of consultations were mainly to:

Inform affected communities about project objectives and activities;

Discuss and assess possible adverse impacts and collect their views to avoid or mitigate them;

Discuss and assess potential project benefits and how these can be enhanced; and

Develop a strategy for PAP's participation during project design and implementation and to ascertain communities' broad support for the project.

Local communities and stakeholders were informed in advance about the consultation meeting, venue and the agendas through local authorities. All consultations meetings were accessible to all stakeholders and were in an informal setting. All stakeholders were encouraged to speak up and provide feedback about the proposed project activities. The consultation meeting started with the consent of the participants present. At the beginning of each meeting, overall objectives and expectations from the meeting were shared and participants introduced themselves. After the introduction session, brief information about the key objectives, scope of the project, its benefit and possible impacts was shared with the participants. Consultations were mainly focused on identifying likely adverse impacts of the project and options to avoid or mitigate them and to assess potential project benefits and how these can be enhanced in favor of local communities. All participants, both male and female, were encouraged express their views, concerns and suggestions regarding the proposed project. All the concerns, comments and feedback provided by the participants of each consultation meetings have been noted and reflected in this document as far as practicable.

Overall, project affected communities were highly supportive of the planned project activities, and expressed willingness to take part in these activities as part of the planned cooperatives and in any other ways envisioned by the project. No concerns were expressed.

(c) Community engagement during project implementation

The communities residing in and around the project area are the ultimate recipient of project impacts and benefits, and therefore a key stakeholder. Therefore, the interventions need community support or participation in order to succeed. Thus, a participatory process and community consultations approach engaging government authorities, right holders and stakeholders at different levels will provide substantial information on the patterns of resource use of local affected communities/groups and persons, which will provide accurate information about which groups/individuals need to be targeted and will therefore be affected most by restrictions on resources.

The project design process involved a process of clarifying and confirming the various roles and responsibilities of these stakeholders, the details of which are presented in the SEP. The SEP provides detailed guidelines on the engagement of various stakeholders, and also outlines a range of specific stakeholder organizations and actors that should be engaged. These include government agencies, local government authorities, private sector partners and business organizations, civil society organizations, and development partners (see Annex I of the SEP).

Three SEPs were prepared for this project—one for Vietnam, one for the Philippines, and another one for SEAFDEC. The primary responsibility for the implementation of the regional SEP will be with the SEAFDEC PMU, under the supervision of the PSC. D-Fish will be responsible for the implementation of the national SEP, and will report to SEAFDEC. Other project partners will be involved in various aspects of its implementation. Component 4 of the project will furthermore include participation in the IW:LEARN community, which will facilitate the creation and dissemination of information, lessons learnt and other materials.

The purpose of this section is to provide more detailed guidelines on the **engagement of project-affected individuals** in project activities, and in particular ensuring that livelihood restoration activities are properly executed.

The key institutional mechanisms for stakeholder engagement during project implementation are:

1. The Project Steering Committee
2. SEAFDEC as the Lead Executing Agency
3. D-FISH as the national executing agency in Vietnam, and BFAR as the national executing agency in Philippines.

Under the coordination of the Safeguards/Gender/M&E Specialist at D-FISH, specific arrangements related to the engagement of community members in project activities implementation and monitoring include the following.

When should local communities be engaged?

Project affected people should be engaged **in advance of the implementation of each activity that may affect their interests, entitlements, and livelihoods**. Such activities should be identified by the Safeguards/Gender/M&E Specialist by going through the environmental and social safeguards screening process. If the screening reveals any adverse environmental or social impacts that may result from a planned activity, a community consultation should be organized in advance of the implementation of this activity, in order to mitigate its adverse impacts. Activities that result in restriction or loss of livelihood should trigger the development of site-specific livelihood restoration plans (as indicated in section 4.5 above). This will primarily include the site-specific development plans that will change the access and usage rights of sea and land resources by various individuals in project sites.

Who should be engaged? Criteria for Eligibility of Project Affected Persons & Livelihood Restoration

Community members that should be engaged in consultations are those persons who, as a direct consequence of an activity would, without their informed consent or power of choice, either: (a) lose their assets or access to assets or access to community and natural resources, or (b) lose a source of income or means of livelihood, whether or not they physically relocate to another place.

For activities that may result in restrictions or loss of access to livelihood resources, a participatory process will be followed to identify people, groups, or households, who should participate in the livelihood restoration process. All of the proposed livelihood restoration activities, interventions and initiatives within the LRP will be developed in consultation with the affected people. Implementation of each of these will also be carried out with full transparency and disclosure. Further details on the development of LRPs are provided in section 4.5 of this ESMF/PF.

Vulnerable groups

Vulnerable and marginalized groups should be actively engaged in project-related consultations and in the development of LRPs, since their role in forest and habitat management, livelihood interventions, project supported incentive and benefit sharing make them vital to the process. Vulnerable groups primarily include: women (especially widows and female-headed households), youth, disabled individuals, elderly (especially single-headed households).

How should communities be engaged?

For the community engagement process to be as inclusive as possible, it is important to use as many avenues as possible to inform all stakeholders through advertisements, national radio and

television etc. Special measures should be undertaken to ensure the inclusive engagement of all community members, and in particular vulnerable groups:

- *Easy notification:* Communities will be notified and engaged through a variety of communication channels, in light of the quality of phone networks, weather and road accessibility to ensure adequate outreach to all groups (including people with disability and who cannot read).

Communication channels will include publication of information on planned meetings on local notice boards, notification of meetings through phone, letters, public address using speakers and microphones, and dispatch of leaflets/letters using motorcycles. Background information for meetings will be provided in advance to provincial and commune/ward level authorities.

To proactively reach out to specific target groups in the community (e.g., women, youth, elderly, etc.), the project will identify and engage local opinion leaders in those groups, and solicit their help to spread the message to other members.

- *Convenient location and timing:* Local community leaders should help in deciding where to place other information so that target groups will be likely to encounter it. They should also advise on the most suitable timing to convene consultation meetings to ensure that as many community members as possible may attend. This may require enhanced awareness to the availability of both women to attend (and set aside household chores), availability of fishermen who work off-shore, etc. The project will ensure that there is enough time, flexibility (e.g. due to disability, some may come from far) to ensure there is participation of all intended members of communities. This will avoid the risks of women and other relevant groups being excluded to take part due to being excluded from public gatherings due to their disability, gender orientation, economic activity, religion or ethnicity.
- *Simple communication:* Communication should be simplified and adapted to ensure that it fits the local context and helps build confidence (especially in the context of engaging women and nomadic groups). In all meetings, Vietnamese will be used.
- *Appropriate engagement format:* A combination of methods will be used when consulting and engaging local communities to enhance inclusiveness and active participation of all community groups. This will primarily include open community meetings, one-on-one conversations, focus group discussions using various criteria depending on situation (per economic activity, age group, gender, nomadic groups, etc.); and key informants discussions with emphasis on specific topics.
- *Local facilitation:* It is expected that D-FISH will convene most of the meetings, and the discussions should be led by community members and officials from the provincial and commune/ward level government. These meetings should be held in collaboration with local community-based organizations, private sector representatives, and community members. The collaboration is important to lend credibility to the intervention as it may be identified as a community effort rather than an imposition by the government or any particular organization.
- *Documentation:* A register will be kept, updated regularly and feedback systems developed to ensure that women and other relevant groups (minorities, elderly, young other marginalized groups) are fully included in consultations, benefit from the project and informed on the progress on the project.

Closing the feedback loop

Once the community engagement process has started, it has to be maintained. Stakeholders in the community must be kept informed, and support has to be provided when needed, conflicts have to be resolved, methods have to be devised to keep the process reasonably efficient, goals and deadlines have to be set. It is expected that this logical proceeding of activities and the consultation and involvement of local communities in the project, will minimize any potential conflicts and grievances.

The Safeguards/Gender/M&E Specialist will ensure that affected persons are informed about the outcome of the decision-making process and will confirm how their views were incorporated into the design of project activities. Specific procedures on how compensation for access restrictions can be obtained should be provided in LRPs.

5.6. Communications and Disclosure

All affected communities and relevant stakeholders shall be informed about the ESMF requirements and commitments. The executive summary of the ESMF will be translated into Vietnamese and made available along with the ESMF and SEP on the websites of SEAFDEC and D-Fish, as well as the websites of the WWF GEF Agency. Hard copies of the ESMF will be placed in appropriate public locations and at SEAFDEC and D-Fish. Project Technicians and the Safeguards/Gender/M&E Specialist at D-Fish will be responsible to raise community awareness regarding the requirements of the ESMF, and will also ensure that all external contractors and service providers are fully familiar and comply with the ESMF and other safeguards documents.

During the implementation of the project, activity-specific ESMPs shall be prepared in consultation with affected communities and disclosed to all stakeholders prior to project concept finalization. All draft ESMPs shall be reviewed and approved by D-Fish and SEAFDEC in consultation with the PSC and WWF GEF Agency in advance of their public disclosure. The D-Fish PMU must also disclose to all affected parties any action plans prepared during project implementation, including gender mainstreaming.

Disclosure should be carried out in a manner that is meaningful and understandable to the affected people. For this purpose, the executive summary of ESMPs or the terms and conditions in environment clearances should be disclosed on SEAFDEC, D-FISH and WWF websites.

The disclosure requirements are summarized in Table 4 below.

Table 4: Disclosure framework for ESMF related documents

Documents to be disclosed	Frequency	Where
Environment and Social Management Framework	Once in the entire project cycle. Must remain on the website and other public locations throughout the project period.	On the website of SEAFDEC and WWF. Copies should be available at D-Fish, and in local government offices in project areas
Environmental and Social Management Plan/s	Once in the entire project cycle for every activity that requires ESMP. Must remain on the website and other disclosure locations throughout the project period.	On the website of SEAFDEC and WWF. Copies should be available at D-Fish, and in local government offices in project areas
Safeguards Monthly Progress Report	Monthly	Copies should be available at D-Fish PMU, and in local government offices in project areas

Minutes of Formal Public Consultation Meetings	Within two weeks of meeting	On the website of SEAFDEC and WWF. Copies should be available at D-Fish
Grievance redress process	Quarterly, throughout the project cycle	On the website of D-Fish. Copies should be available at the D-Fish and SEAFDAC Offices

5.7. Capacity Building and technical assistance

Capacity building activities will be provided as needed by WWF US to SEAFDEC and D-FISH to acknowledge the latter with ESMF/PF implementation requirements and good practices. These will focus in particular on issues related to the preparation of LRPs, organization of consultations, operationalization of the GRM, and monitoring of ESMF implementation. The budget for capacity building shall be included in Component 4.

5.8. Grievance Mechanisms

The project will have a direct and tangible effect on local communities and individuals residing within or in the vicinity of project sites. There is thus a need for an efficient and effective Grievance Redress Mechanism (GRM) that collects and responds to stakeholders' inquiries, suggestions, concerns, and complaints. The GRM shall constitute an integral part of the project and assist D-Fish in identifying and addressing the needs of local communities. The GRM should be constituted as a permanent and accessible institutional arrangement for addressing any grievances arising from the implementation of project activities.

It is in the interest of the project to ensure that all grievances or conflicts that are related to project activities are appropriately resolved at the lowest appropriate level, without escalation to higher authorities or the initiation of court procedures. Project affected communities will therefore be encouraged to approach the project's GRM if they feel it is the appropriate level to safely address their grievance.

The GRM will operate based on the following principles:

1. **Fairness:** Grievances are assessed impartially, and handled transparently.
2. **Objectiveness and independence:** The GRM operates independently of all interested parties in order to guarantee fair, objective, and impartial treatment to each case.
3. **Simplicity and accessibility:** Procedures to file grievances and seek action are simple enough that project beneficiaries can easily understand them and in a language that is accessible to everyone within a given community, especially those who are most vulnerable.
4. **Responsiveness and efficiency:** The GRM is designed to be responsive to the needs of all complainants. Accordingly, officials handling grievances must be trained to take effective action upon, and respond quickly to, grievances and suggestions.
5. **Speed and proportionality:** All grievances, simple or complex, are addressed and resolved as quickly as possible. The action taken on the grievance or suggestion is swift, decisive, and constructive.
6. **Participation and inclusiveness:** A wide range of affected people—communities and vulnerable groups—are encouraged to bring grievances and comments to the attention of the project implementers. Special attention is given to ensure that poor people and marginalized groups, including those with special needs, are able to access the GRM.

7. **Accountability and closing the feedback loop:** All grievances are recorded and monitored, and no grievance remains unresolved. Complainants are always notified and get explanations regarding the results of their complaint. An appeal option shall always be available.

Complaints may include, but not be limited to, the following issues:

- (i) Allegations of fraud, malpractices or corruption by staff or other stakeholders as part of any project or activity financed or implemented by the project;
- (ii) Environmental and/or social damages/harms caused by projects financed or implemented (including those in progress) by the project;
- (iii) Complaints and grievances by permanent or temporary workers engaged in project activities.

Complaints could relate to pollution prevention and resource efficiency; negative impacts on public health, environment or culture; destruction of natural habitats; disproportionate impact on marginalized and vulnerable groups; discrimination or harassment; violation of applicable laws and regulations; destruction of physical and cultural heritage; or any other issues which adversely impact communities or individuals in project areas. The grievance redress mechanism will be implemented in a culturally sensitive manner and facilitate access to vulnerable populations.

The GRM will be administered by the D-Fish PMU and reported to the SEAFDEC PMU. The project's GRM will operate in close coordination with the existing GRM at D-Fish, which is managed by the Department of Legislation & Inspection.

The Safeguards/Gender/M&E Specialist at D-Fish will collaborate with the Department of Legislation & Inspection, so that all inquiries or complaints related to the project will be properly and timely collected and processed. The GRM will operate according to the following guidelines.

- (1) Submitting complaints:** Project affected people, workers, or interested stakeholders can submit grievances, complaints, questions, or suggestions to the D-Fish PMU through a variety of communication channels, including phone, regular mail, email, text messaging/SMS, or in-person, by visiting the D-Fish offices. It should be possible to submit complaints to both WWF and D-Fish in order to ensure that project affected people have sufficient opportunities to lodge their complaints to impartial and neutral authorities of their choice.
- (2) Processing complaints:** All grievances submitted to D-Fish shall be registered and considered. A tracking registration number should be provided to all complainants. To facilitate investigation, complaints will be categorized into four types: (a) comments, suggestions, or queries; (b) complaints relating to nonperformance of project obligations and safeguards-related complaints; (c) complaints referring to violations of law and/or corruption while implementing project activities; (d) complaints against authorities, officials or community members involved in project management; and (e) any complaints/issues not falling in the above categories. Complaints submitted to D-Fish will be handled by the Department of Legislation & Inspection in line with its operational procedures in coordination with the Safeguards/Gender/M&E Specialist.
- (3) Acknowledging the receipt of complaints:** Once a grievance is submitted, the Safeguards/Gender/M&E Specialist at D-Fish shall acknowledge its receipt, brief the complainant on the grievance resolution process, provide the contact details of the person in charge of handling the grievance, and provide a registration number that would enable the complainant to track the status of the complaint.
- (4) Investigating complaints:**

- a. For complaints submitted to D-Fish, the Department of Legislation & Inspection will assign the complaint for the investigation of relevant authorities, while notifying the project's Safeguards/Gender/M&E Specialist.

A written response to all grievances shall be provided to the complainant within 10 working days, in line with the operational procedures of the Department of Legislation & Inspection. Grievances that cannot be resolved by grievance receiving authorities/office at their level should be referred to a higher level for verification and further investigation.

(5) Appeal: In the event that the parties are unsatisfied with the response provided by the GRM, the following appeal process is suggested: Appeals on complaints that were first lodged to D-Fish can be submitted to WWF. In both cases, appeals should be submitted within 10 days from the date of the original decision. In the event that the parties are unsatisfied with the appeal decision, the parties can submit their grievances to the Court of Law for further adjudication.

(6) Monitoring and evaluation: the Safeguards/Gender/M&E Specialist at D-Fish shall submit a report with full information on the grievances that were submitted to D-Fish to SEAFDEC. The report shall contain a description of the grievances and their investigation status. Summarized GRM reports shall constitute part of the regular project progress reporting, and shall be submitted by SEAFDEC to the PSC and WWF GEF Agency.

Information about channels available for grievance redress shall be widely communicated in all project affected communities and to all relevant stakeholders. The contact details (name, phone number, mail and email address, etc.) of D-Fish and WWF GRMs shall be disseminated as part of all public hearings and consultations, in the local media, in all public areas in affected communities, and on large billboards in the vicinity of project activity sites.

The GRM seeks complement, rather than substitute, the judicial system and other dispute resolution mechanisms. All complainants may therefore file their grievance in local courts or approach mediators or arbitrators, in accordance with the legislation of Vietnam.

In addition to the project-specific GRM, a complainant can submit a grievance to the WWF GEF Agency. A grievance can be filed with the Project Complaints Officer (PCO), a WWF staff member fully independent from the Project Team, who is responsible for the WWF Accountability and Grievance Mechanism and who can be reached at:

Email: SafeguardsComplaint@wwfus.org

Mailing address:

Project Complaints Officer
Safeguards Complaints,
World Wildlife Fund
1250 24th Street NW
Washington, DC 20037

Stakeholders may also submit a complaint online through an independent third-party platform at <https://report.whistleb.com/vi/wwf>.

5.9. Budget

The EMSF implementation costs, including all costs related to compensation to project affected people, will be fully covered from the project budget. It will be the responsibility of the

Safeguards/Gender/M&E Specialist at D-Fish to ensure that sufficient budget is available for all activity-specific mitigation measures that may be required in compliance with the EMSF.

A permanent Safeguards/Gender/M&E Specialist will be employed by D-Fish and 60% of their time will be dedicated to ensuring the ESMF implementation. A Project Manager will be employed by SEAFDEC and will monitor the ESMF implementation.

Budget for capacity building on ESMF/PF/IPPF implementation, travel costs and workshops and meetings for safeguards monitoring (including travel, workshops and meetings) will be included in the overall monitoring and evaluation budget under Component 4 of the project.

Annex 1. Safeguard Eligibility and Impacts Screening

This screening tool needs to be filled out for each activity or category of activities included in the annual work plan and budget. In addition, the screening tool needs to be completed whenever management measures or management plans are developed and/or when project intervention areas are determined.

The tool will be filled out by Safeguards/Gender/M&E Specialist at D-Fish and reviewed by the Project Manager at SEAFDEC. The decision on whether a Site-Specific Environmental and Social Management Plan (ESMP) or Livelihood Restoration Plan (LRP) are required shall be made by the Safeguards/Gender/M&E Specialist in consultation with the WWF GEF Agency Safeguards Specialists and SEAFDEC, based on the information provided in this screening form, as well as interviews with the D-Fish PMU staff, local communities, and any other relevant stakeholders.

Part 1: Basic Information

1	Activity Name	
	Description of Activity (“sub-activities”)	
2	Type of Activity:	New activity <input type="checkbox"/> Continuation of activity <input type="checkbox"/>
3	Activity location:	
4	Total size of site area	
5	Activity implementation dates	
6	Total cost	

(Move to Part 2 after filling in all information in the table above)

Part 2: Eligibility Screening

No.	Screening Questions: <i>Would the project activity</i>	Yes	No	Comments/ Explanation
1	Lead to land management practices that cause degradation (biological or physical) of the soil and water?			
2	Negatively affect areas of critical natural habitats or breeding ground of known rare/endangered species?			
3	Significantly increase GHG emissions?			

No.	Screening Questions: <i>Would the project activity</i>	Yes	No	Comments/ Explanation
4	Use genetically modified organisms or modern biotechnologies or their products?			
5	Introduce crops and varieties that previously did not grow in the implementation areas?			
6	Result in the loss of biodiversity, alteration of the functioning of ecosystems, and introduction of new invasive alien species?			
7	Procure or supply pesticides or result in an increase in the use of pesticides?			
8	Lead to physical displacement and voluntary or involuntary relocation of people, including non-titled and migrant people?			
9	Contribute to exacerbating any inequality or gender gap that may exist?			
10	Involve child labour?			
11	Adversely affect indigenous peoples' rights, lands, natural resources, territories, livelihoods, knowledge, social fabric, traditions, governance systems, and culture or heritage (physical and non-physical or intangible) inside and/or outside the project area?			
12	Negatively impact areas with cultural, historical or transcendent values for individuals and communities?			
Please provide any further information that can be relevant:				

If all answers are “No”, project activity is eligible and move to Part 3

If at least one question answered as “yes”, the project activity is ineligible and the proponent can reselect the site of project activity and do screening again.

Part 3: Impacts screening

Answer the questions below and follow the guidance to provide basic information regarding the suggested activity and describe its potential impacts.

No.	Would the project activity:	Yes/No	Provide explanation and supporting documents if needed
<i>Environmental Impacts</i>			
1	Result in permanent or temporary change in land use, land cover or topography.		
2	Involve clearance of existing land vegetation		

3	Result in environmental pollution		
4	Disturb in any way the local aquaculture and biodiversity (e.g., coral reefs)		
5	Disturb the local fauna or endangered species (e.g., turtles)		
6	Result in significant use of water, such as for construction		
7	Produce dust during construction and operation		
8	Generate significant ambient noise		
9	Increase the sediment load in the local water bodies		
10	Change on-site or downstream water flows		
11	Negatively affect water dynamics or the hydrological cycle in ways other than direct changes of water flows (e.g. water filtration and aquifer recharge, sedimentation)		
12	Result in negative impacts to any endemic, rare or threatened species; species that have been identified as significant through global, regional, national, or local laws		
13	Potentially increase the vulnerability of local communities to climate variability and changes (e.g., through risks and events such as landslides, erosion, flooding or droughts)		
<i>Socio-Economic Impacts</i>			
14	Negatively impact existing tenure rights (formal and informal) of individuals, communities or others to land, fishery and forest resources		
15	Restrict access to natural resources (e.g., watersheds or rivers, grazing areas, forestry, non-timber forest products) or restrict the way natural resources are used, in ways that will impact livelihoods		
16	Restrict access to sacred sites of local communities (including ethnic minorities) and/or places relevant for women's or men's religious or cultural practices		
17	Undermine the customary rights of local communities to participate in consultations in a free, prior, and informed manner to address interventions directly affecting their lands, territories or resources		
<i>Indigenous and Vulnerable Groups</i>			
18	Negatively affect vulnerable groups (such as ethnic minorities, poorer households, migrants, and assistant herders) in terms of impact on their economic or social life conditions or contribute to their discrimination or marginalization		

19	Negatively affect the livelihoods and/or customs and/or traditional practices of indigenous groups		
20	Stir or exacerbate conflicts among communities, groups, within families or individuals? Also considering dynamics of recent or expected migration including displaced people		
Occupational and Community Health and Safety			
21	Involve any risks related to the usage of construction materials, working high above the ground or in canals where slopes are unstable		
22	Expose local community to risks related to construction works or use of machinery (e.g., loading and unloading of construction materials, excavated areas, fuel storage and usage, electrical use, machinery operations)		
23	Expose the local community or project workers to health risks, including COVID-19		
24	Generate conflicts or pressure on local resources between temporary workers and local communities		

List of documents to be attached with Screening form:

1	Layout plan of the activity and photos
2	Summary of the activity proposal
3	No objection certificate from various departments and others relevant stakeholders

Screening Tool Completed by:

Signed:

Name: _____

Title: _____

Date: _____

Screening Conclusions [TO BE COMPLETED BY Safeguards Specialist]

- i. Main environmental issues are:

ii. Permits/ clearance needed are:.

iii. Main social issues are:

iv. Further assessment/ investigation needed and next step.

a. Need for any special study:.....

b. Preparation of ESMP (main issue to be addressed by the ESMP):.....

c. Preparation of LRP (main issue to be addressed by the LRP):.....

d. Any other requirements/ need/ issue etc:

Screening Tool Reviewed by:

Signed:

Name: _____

Title: _____

Date: _____

Exclusion list

The following practices and activities will not be supported by the project:

1. Land or water management practices that cause degradation (biological or physical) of the soil and water.
2. Activities that negatively affect areas of critical natural habitats or breeding ground of known rare/ endangered species.
3. Actions that represent significant increase in GHG emissions.
4. Use of genetically modified organisms, or the supply or use of modern biotechnologies or their products in crops.
5. Introduction of crops and varieties that previously did not grow in the implementation areas, including seed import/transfer.
6. Actions resulting in loss of biodiversity, alteration of the functioning of ecosystems, and introduction of new invasive alien species.
7. Procurement of pesticides or activities that result in an increase in the use of pesticides.
8. Activities that would lead to physical displacement and voluntary or involuntary relocation.
9. Activities that do not consider gender aspects or contribute to exacerbating any inequality or gender gap that may exist.
10. Child Labour.
11. Activities that would adversely affect indigenous peoples' rights, lands, natural resources, territories, livelihoods, knowledge, social fabric, traditions, governance systems, and culture or heritage (physical and non-physical or intangible) inside and/or outside the project area.
12. Activities that would negatively impact areas with cultural, historical or transcendent values for individuals and communities.