Project Information Document (PID)

Concept Stage | Date Prepared/Updated: 11-Jul-2019 | Report No: PIDC27261

BASIC INFORMATION

A. Basic Project Data

Country	Project ID	Parent Project ID (if any)	Project Name
Vietnam	P171352		Sustainable Fishery Development Project (P171352)
Region	**Estimated Appraisal Date**	**Estimated Board Date**	**Practice Area (Lead)**
EAST ASIA AND PACIFIC	Jan 10, 2020	Sep 30, 2020	Environment & Natural Resources
Financing Instrument	**Borrower(s)**	**Implementing Agency**	
Investment Project Financing	Ministry of Finance	Ministry of Agriculture and Rural Development	

Proposed Development Objective(s)

Improved management of and increased value-addition in targeted fisheries

PROJECT FINANCING DATA (US$, Millions)

SUMMARY

Total Project Cost	300.00
Total Financing	300.00
of which IBRD/IDA	300.00
Financing Gap	0.00

DETAILS

World Bank Group Financing

International Bank for Reconstruction and Development (IBRD)	300.00

Environmental and Social Risk Classification	Concept Review Decision
Substantial	Track II-The review did authorize the preparation to continue

Other Decision (as needed)

B. Introduction and Context

Country Context

1. **With a population of 95 million people and per capita GDP of USD 2,343 (2017), Vietnam is globally recognized for its transformational socio-economic progress since the introduction of the Doi Moi reforms in the late 1980s.** It has been one of the fastest-growing economies in the world for the last 25 years. Vietnam's per capita GDP grew at an average annual rate of 5.5 percent between 1990 and 2017. The proportion of the population living below the national poverty line fell below 10 percent in 2016, down from close to 60 percent in 1993. In terms of shared prosperity, the growth in per capita consumption among the bottom 40 percent of the population was 5.6 percent annually, compared to 4.2 percent for the total population during the 2010-2016 period.

2. **The wealth of natural resources existing along Vietnam's extensive coastline of 3,260 kilometers long and within its exclusive economic zone of over one million km^2 has greatly contributed to the country's rapid growth.** Its twenty-nine coastal provinces account for 53 percent of the nation's population, and their economy is largely resource-based, with aquaculture and capture fisheries together accounting for the largest share of both income and employment.

3. **Vietnam is an important player in the world´s seafood market.** It ranks third in value of seafood exports in the world. In 2018, the total output of aquaculture and fishery is estimated at 7.7 million tons, of which the aquaculture production is estimated at 4.2 million tons, accounting for 54.6 percent. Export value reached USD9 billion in 2018. The value of fishery and aquaculture production contributed 3.2 percent to the national GDP[1] and 4.1 percent of the country's total export value, providing 4.5 million jobs (GSO, 2017). Over the last 15 years, the fisheries sector has been in a rapid transformation to become a commodity industry, from domestic market-oriented production (both aquaculture and capture fisheries), to processing and exports of aquatic products[2]. Vietnam has established seafood export markets in about 170 countries and territorial regions worldwide, including markets requiring high quality products and strict quality control, such as the European Union, the United States, and Japan.

Sectoral and Institutional Context

4. **Vietnam's fisheries sector, including both capture fisheries and aquaculture plays an important role in the national economy.** Fisheries development contributes to food security, job creation, income generation, poverty reduction and economic development of the country. *The Fisheries Development Masterplan to 2020 with Vision to 2030* set the goal for the fisheries sector to become a commodity production sector with prestigious brands and high competitiveness at the international level. It is aimed that, by 2020, the fisheries sector will contribute to some 30-35 percent of the GDP of the agriculture-forestry-fishery sector (baseline: 21.2%; USD34.3 billion in 2017), achieving a total fishery output of 6.5-7 million tons, an export turnover of USD9-11 billion, creating 5 million jobs with income of 2.5 times higher than that of 2010. By 2030, total fishery output will reach 9 million tons, export turnover will amount to some USD20 billion, and an annual growth rate of 6-8 percent in value for the 2020-2030 period.

[1] The GDP was USD 224 billion in 2017
[2] The total production of inland freshwater fisheries stands around 0.2 million, which is a small fraction (2.5%) of the total output of the sector and its vast majority is consumed domestically.

5. **To achieve the Government objectives for the fisheries sector, there needs to be a concerted effort to shift the orientation in the fisheries sector from being quantity driven to being quality oriented (more from less).** This requires attention to increasing sustainably productivity and value addition. As the fisheries are reaching their maximum biological production capacity attention must be given to control the exploitation level (aka fishing effort) and investing further in sustainable aquaculture production models to fill the production gap. Recent preliminary analysis done by the World Bank underscored the importance of such change in aquaculture if export value is to more than double from USD 4 billion today to USD 10 billion in 2025. Under a business as usual scenario, based on historical production increase, shrimp export value would only reach approximately USD 4.8 billion by 2025[3].

6. **In the context of capture fisheries, shifting from quantity to quality (more from less) is urgent if Vietnam is to avoid irreversible consequences from overfishing.** Figures 1 and 2 show the recent trend in catch per unit of effort (CPUE) per vessel and per horse power (HP). While the total catches more than doubled over the same period, CPUE commenced decreasing, while fleet has decrease in number of units but increased in engine power, suggesting that productivity decreased in coastal areas and vessels are moving offshore to find new fishing grounds. The latest stock assessments carried out in 2011-2015, show an alarming decline in marine fisheries resources, confirming this hypothesis. In relation to the previous assessments conducted in 2000-2005, the latest data reveal that the stocks of main marine resources (fish, crustaceans, cephalopods) dropped by 13.9 percent, small pelagic stocks declined by 3.2 percent, and the marine benthic and large pelagic groups plummeted by 41.7 percent and 10.2 percent respectively (MARD, 2016).

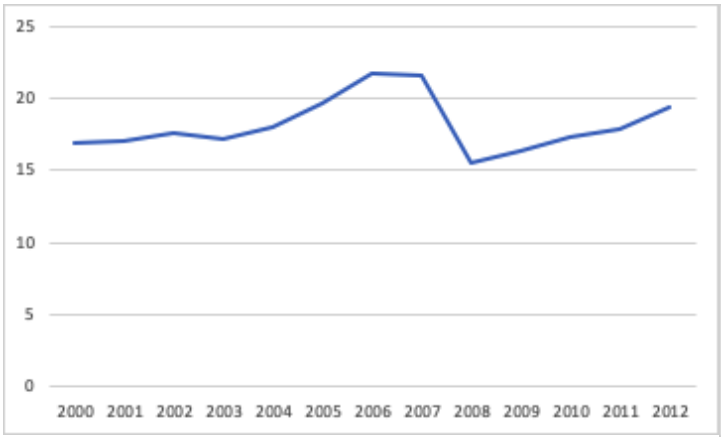

Figure 1: CPUE per vessel

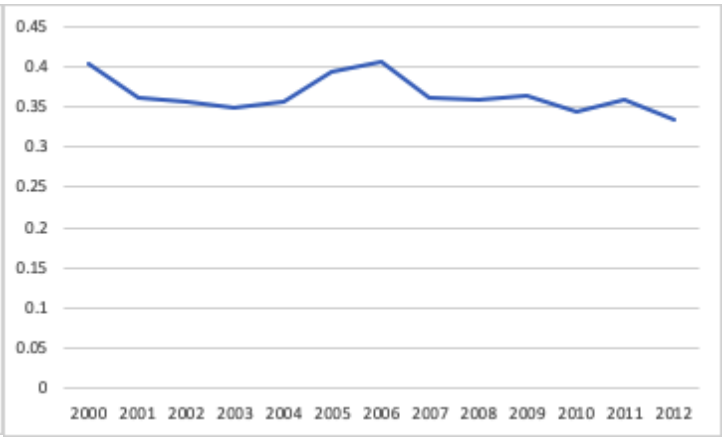

Figure 2: CPUE per HP

[3] Key assumptions for the business as usual scenario include low productivity (approx. 100 kg/ha) and low value addition (with main export products being frozen shrimp).

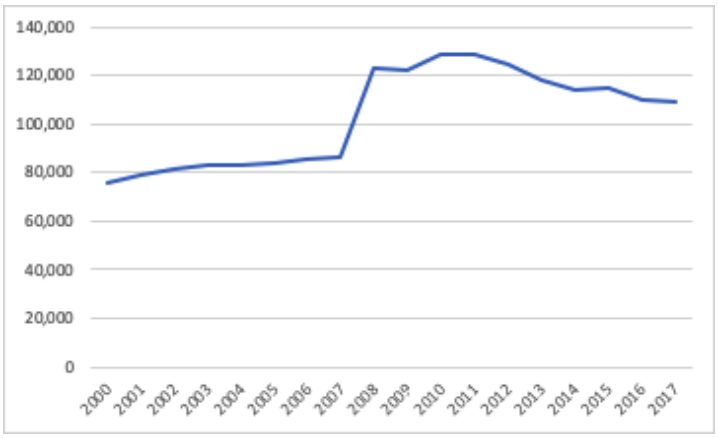

Figure 3: Number of vessels

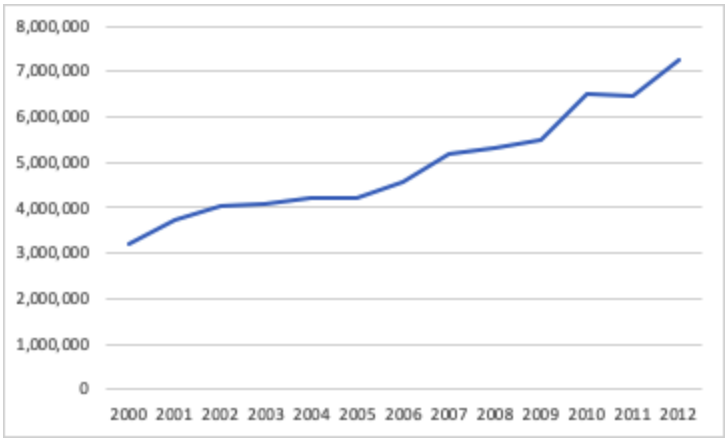

Figure 4: Total HP of the capture fleet

7. **For capture fisheries, effective management, fleet and catch monitoring, losses reduction, products' quality improvement are some of the necessary to ensuring sustainable development, enhancing productivity, and augmenting value added.** Currently with a fleet size of nearly 110,000 units, with a total capacity of 10 million HP, and a large number of ports (of varying capacity and condition), it is important to identify ways to maximize socioeconomic benefits by reducing fishing effort, stabilizing the catches at a sustainable level, and creating more value added, while also reducing environmental footprints. Attention to improving productivity and quality in fisheries would also help address one of the key areas identified in the yellow card[4] issued in 2017 by the European Commission (EC) – improving the system for controlling landings of fish that is processed locally before being exported to international markets and monitoring and controlling Vietnamese fleets operating beyond waters under national jurisdiction. Landing infrastructure would play a central role in achieving fisheries management, product quality improvement and pollution reduction.

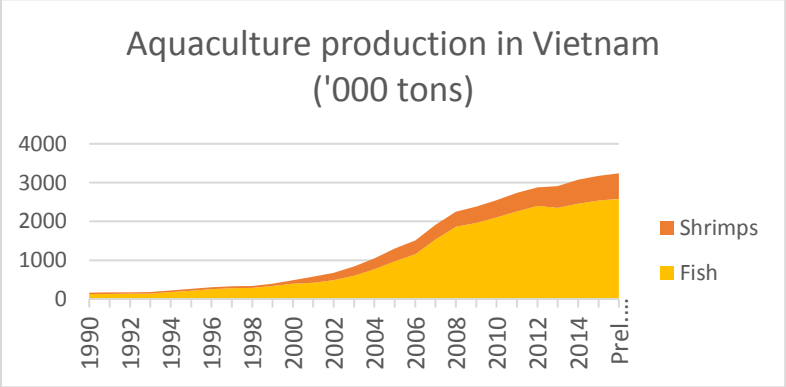

Figure 5: Aquaculture production in Vietnam

8. **The aquaculture sub-sector has also experienced a rapid growth with expansion of new industrial aquaculture areas.** Pangasius (catfish) alone accounts for almost half of the total volume of aquaculture production as of 2016. Pangasius production in Vietnam is characterized by an oligarchy of capital intensive vertically integrated private producers who are able to meet stringent international market requirements and export their products across the world. The

[4] While the yellow card has been lifted from some of the pre-identified countries, it remains effective for Vietnam as of June 2019 since its issuance in October 2017.

brackishwater shrimp producers are more diversified – ranging from international large private investors to local subsistent farmers with varied financial, technical and scientific capacity.

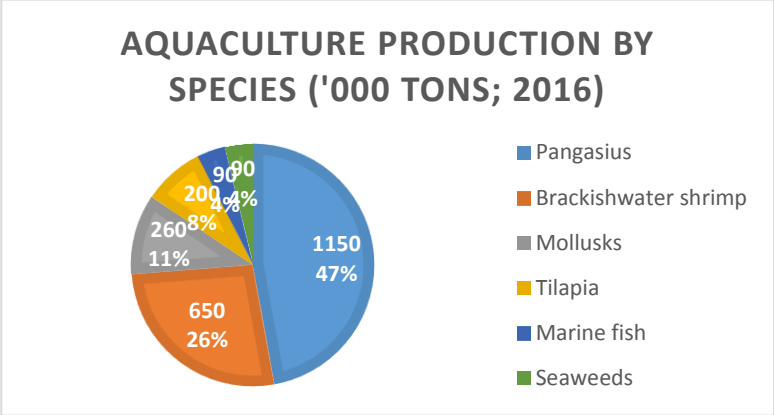

Figure 6: Aquaculture production by species

9. **The shrimp industry in Vietnam has a great potential for further development, especially in the context of climate change.** It is expected that sea level rise and resultant saltwater intrusion will affect a total of 0.8 to 1 million hectares in coastal provinces, in particular in the Mekong Delta, where the land will become mostly unsuitable for crop farming, opening up instead the possibility for brackish shrimp culture or the rice-shrimp system. While current total production of brackish shrimp is small (approximately 0.7 million ton), its export value stands at USD 3.8 billion in 2017, representing 46.9 percent of the total fishery export and 62.5 percent of the aquaculture export turnover. The area under brackish water shrimp production has shown a rapid increase in recent years, reaching a total of 721,100 hectares as of 2017. In this context, the Government has set the targets to increase the total brackish production to 1.1 million tons and increase the export turnover almost three-fold to USD10 billion by 2025.

10. **In the context of aquaculture, generating more from less will require overcoming low productivity and low value addition/quality for the shrimp subsector to meet this objective.** Table 1 reveals that the average productivity in shrimp production in Vietnam lags far behind the levels of neighboring countries. This is ascribed largely ascribed to the fact that traditional extensive farming is still the dominant form of shrimp farming in the country. In other words, the recent rise in total production has been the consequence of continuous expansion of shrimp culture and some reductions in devastating disease outbreaks.

Country	Pond area (ha)	Extensive production area (ha)	'000 tonnes (2016)	Average productivity (kg/ha)
Vietnam	619,000	562,000	641	103.6
Indonesia	180,000	50,000	637	353.9
India	141,000	2,000	531	376.6
China	421,000	35,000	2,451	582.2
Philippines	6,260	3,500	61	974.4
Thailand	32,440	10,000	342	1,054.30
Sources: Boyd and FAO				

Table 1. Productivity of shrimp production in Asia

11. **Additional aquaculture productivity enhancement must be environmentally sustainable and disease free.** As in the case of neighboring countries, the rapid expansion of shrimp culture has resulted in a number of issues requiring

immediate attention, including mangrove clearing, effluents causing widespread pollution and fatal disease outbreaks. The fact that Vietnam is still largely reliant on natural exploitation for broodstock production compounds this issue as it makes high-quality disease-free seed production particularly challenging. It should be also noted in this context that small-scale subsistent farmers without adequate means to comply with pollution control and biosecurity measures were oftentimes among those most affected by epidemics and obliged to abandon their operations altogether in some of the most serious cases. While the Coastal Resources and Sustainable Development (CRSD) project has made significant strides in addressing such issues notably by assisting farms to adopt good aquaculture practices, much remains to be done, including 1) developing basic infrastructure including for wastewater quality control and management; 2) developing sufficient scientific and technical capacity for the production of high-quality broodstock; and 3) supporting hatcheries to meet biosecurity standards and produce disease-free seed.

12. **Combating marine pollution from both capture fisheries and aquaculture will be critically important for sustainable sectoral development.** Across the vast coastline of Vietnam, uncoordinated development of industry, tourism, fisheries and aquaculture has become the cause of widespread marine pollution, which is threatening key marine ecosystems, including coral reefs and seagrass beds, upon which coastal fisheries depend. Shrimp aquaculture produces a large quantity of both solid waste and wastewater, of which a majority is discarded to the environment without adequate treatment despite progress made in recent years. In this regard, measures to promote good aquaculture practices (GAPs), including proper treatment of solid waste and wastewater, will need to be further strengthened. Moreover, Vietnam is considered as one of the largest contributors to marine plastic pollution globally and illegally dumped fishing gears, including fishing nets, are thought to account for a large part of seaborne marine plastics. Measures to combat littering from fishing vessels will need to be mainstreamed into efforts to improve fisheries management to the extent possible.

13. **Looking ahead, MARD has proposed a series of measures to enhance the productivity and quality for capture fisheries and for shrimp culture.** For capture fisheries greater capital investment for the infrastructure development is considered a priority. The current budget allocation merely represents 4 percent and 27 percent of the total amounts necessary for the achievement of the stated objectives of the masterplan for fishing ports and storm shelters respectively.

14. **Increased and climate-smart infrastructure investments in fishing ports and storm shelters are justified from the environmental, economic and social sustainability angles, as well as for resilience**:

- Need for sustainable sectoral development by enhancing quality of raw material and value added: It would be difficult to attain the ambitious goals of *the Fisheries Development Masterplan to 2020 with Vision to 2030* with an orientation of more from less without the commensurate level of financial investment for key infrastructure. The CRSD project demonstrated the critical importance of ameliorating basic port infrastructure inclusive of wastewater treatment facilities to improve fish handling practices and quality of raw material as well as reduce postharvest losses. Reduction in postharvest losses will provide a significant gain in value-added. Furthermore, rationalization of fishing ports (i.e., building fishing ports with larger capacity to more effectively monitor the fleet and provided needed service while phasing out smaller ports) could help strengthen monitoring of the sector. Investments must be done strategically by prioritizing key infrastructure investments for augmenting productivity and sustainability of capture fisheries. Available public resources must also be used efficiently and strategically and should leverage other sources of financing for sustainable fisheries development.
- Building resilience to climate change impacts: Several small fishing vessels currently find themselves in a precarious condition without adequate protection from a whole range of climatic natural hazards to which Vietnam is considered among the most vulnerable in the world. Given the anticipated sea level rise and increase in severity and frequency of tropical storms, there is a growing need for climate-resilient storm shelters.

15. **Enhancing quality of raw material and value added for shrimp culture will require:**

- Prioritize investment in the Mekong Delta region – the shrimp farming hub of the country, with a special focus on Ca Mau, Bac Lieu, Soc Trang and Kien Giang;
- Reduce low-productivity farming areas; invest in conservation and restoration of mangroves instead; and
- Facilitate transformation of 35,000 ha of extensive shrimp culture (20,000 ha of tiger shrimp and 15,000 ha of white shrimp) to semi-intensive or intensive farming.

16. **Enhancing value addition by crowding in 'good' private investments is also a key theme for the aquaculture subsector.** Notwithstanding the rapid recent increase in the shrimp export turnover, frozen shrimp with limited value addition accounts for the large majority of the exported shrimp products. Also, the intensive use of antibiotics – partly stemming from the concerns about epidemics – has raised food safety concerns and tarnished the reputation of Vietnamese shrimp in its important export markets. In the face of this situation, MARD is planning to expand organic shrimp farming as well as the environmentally friendly rice-shrimp production model, while encouraging industrial shrimp producer to adopt good production and handling practices and obtain internationally recognized certifications. Additional technical support is desired in this regard as the government efforts to date have not resulted in measurable impacts. Furthermore, from the perspective of international commerce, GoV is under increasing pressure to strictly comply with relevant WTO agreements, including provisions of the Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement) and the Agreement on Technical Barriers to Trade (TBT Agreement) as well as several regional free trade agreements (FTAs) that have been recently adopted.

17. **Government of Vietnam, having recently completed the successful implementation of CRSD has a strong foundation on which to continue to enhance productivity, improve quality and sustain growth in the sector.** CRSD offers several insights into how to effectively achieve the sector objectives through targeted investments in public infrastructure and by leveraging associated private investments.

Relationship to CPF

18. **The proposed project fits with the overall objective of the recently approved WBG Country Partnership Framework** (CPF, FY18-FY22) for Vietnam to provide integrated and holistic engagement through a mix of lending and analytical work and as the country transitions from IDA to IBRD status. Specifically, by focusing on one of the most important renewable natural resources sector, this operation contributes directly to the CPF Focus Area 3: Ensure environmental sustainability and resilience and the CPF Objective 11: Strengthen natural resource management and improve water security, also using natural assets for growth. The project would support the Government's goal to meet the development targets. In its request, the Government clearly indicates that the activities considered would also directly address the three cross-cutting themes: governance, gender, and resilience. First, and as already discussed with MARD, the project will focus on filling some of the gaps in the fisheries governance regime, and particularly outstanding issues related to illegal, unregulated and unreported (IUU) fishing. Second, any strategic approach to the fisheries and aquaculture sectors also necessarily targets the key ecosystems on which both of these activities depend, and particularly mangroves and coral reefs, which also play key roles in enhancing coastal resilience in the face of climate change. In addition, and because of its very strong emphasis on post-harvest practices through support of the value chain and access to markets, the operation will also benefit the hundreds of thousands of women who play an essential role in the trade of fish products.

19. **The project is also consistent with the WBG's 'twin goals' of eliminating extreme poverty and boosting shared prosperity through economic growth among the bottom two quintiles**, particularly as some of the nearshore artisanal

fishermen are amongst the poorest, with little or no access to capital or infrastructure, and likely to be amongst the first to bear the brunt of the worst impacts of climate change, including sea-level rise, coastal erosion, and acidification. Complementing the existing Bank operations and technical assistance that contribute to the development of a Blue Economy Development Framework for Vietnam, this operation brings greater focus on support to the fisheries and aquaculture sectors, in a more targeted, systematic and structural fashion, but in full integration with the Government's other efforts towards coastal resilience and sustainable livelihoods in coastal areas increasingly under threat.

20. The proposed project also adopts the five main shifts prioritized for Vietnam. More specifically, it takes a spatial (area based) approach to supporting the fisheries sector, including concentrating aquaculture activities where they will be most viable (considering sea level rise) and could, through clustering, augment productivity. The intervention also pays close attention to reducing exposure to climate change and extreme weather events by integrating climate change considerations into infrastructure investments (including storm shelters at fishing ports). The future of aquaculture sector will require significant engagement and investment from private sector as will improving traceability of capture fisheries. The project, therefore, aims to maximize finance from development by engaging with private sector and private individuals to mobilize technical know-how and financing respectively. Linked to all of the above is the importance of using best-fit technology (including IoT) to improve stock and catch information, monitor of input use, augment productivity, improve traceability, and providing storm warning. The project will be promoting the use of technology for these purposes.

C. Proposed Development Objective(s)

Improved management of and increased value-addition in targeted fisheries

Key Results

21. The project is expected to achieve the following key results:

- Improved fish quality and reduced post-harvest losses, enhanced activities for monitoring and control, reduced pollution from fishing vessels in proximity of the port;
- Improved quality of shrimp seed and increased productivity of shrimp aquaculture areas;
- Improved infrastructure and seed in major seafood products;
- Volume of certified seafood for export increased;
- Reduced wastewater pollution near ports
- Volume of pathogen free shrimp post larvae accessible to farmers.

D. Concept Description

Project has the following components/sub-components:

22. *Component 1: Infrastructure and logistics development for sustainable capture fishery and aquaculture (IBRD: $250 million; Gov.: $10 million)*

(i) Capture fisheries: development of key infrastructure, including fishing ports, storm-shelters, fishing vessel and catch information management and monitoring systems, facilities and devices for fishers to reduce postharvest losses and comply with the European Union's and international requirements to combat IUU

(ii) Aquaculture: development of basic infrastructure (i.e. supply and discharge canals, water supply and discharge treatment, power supply, transport road) for hatcheries and brackish water shrimp areas, and disease monitoring and warning system.

23. Under this component the project would invest in upgrading fishing port infrastructure at fishing hubs in Khanh Hoa and Kien Giang to reach the national status. The proposed investment also includes upgrading national fishing port, regional storm shelters, provincial fishing ports and storm shelters in Thanh Hoa, Quang Tri, Binh Dinh, Khanh Hoa, Ninh Thuan, Binh Thuan, Soc Trang, Bac Lieu and Ca Mau. Aquaculture infrastructure includes upgrading basic infrastructure for shrimp hatcheries, main brackish water shrimp farming areas in Ninh Thuan, Binh Thuan, Thanh Hoa, Soc Trang, Bac Lieu, Ca Mau and Kien Giang provinces. The project investment in this component will help to crowd in increased private investment in modern infrastructure, service providing and management systems in the hatchery development and shrimp aquaculture.

24. Project activities managed by the MARD include upgrading the Regional Fisheries Monitoring Center (FMC) in Hai Phong (port, logistic center, training center) and upgrading infrastructure and equipment for broodstock production at the Research Institute for Aquaculture No. 1 (Hai Phong), Research Institute for Aquaculture II (Ba Ria-Vung Tau) and Research Institute for Aquaculture III (Khanh Hoa).

25. *Component 2: Strengthening of management capacity and value addition (IBRD: $50 million; Gov.: $30 million)* (i) Strengthening of management capacity for both capture fisheries and aquaculture; (ii) development of fisheries and aquaculture value chains and enhancement of value addition; and (iii) protection and development of fishery resources.

26. Under this component the project will support the transfer of advanced technologies for reducing post-harvest losses of catch and supporting shrimp hatcheries to apply management process technology to meet biosecurity standards, quality and disease-free seed, application of advanced technology to improve the efficiency of brackish water shrimp farming for reducing production costs, improving product quality, avoiding epidemies, protecting the environment and adapting to climate change. The project will also help to improve fisheries management capacity for complying with illegal, unreported and unregulated fishing (IUU) and upgrade the national database fisheries system for management.

27. *Component 3: Project management (Gov. $10 million).* This component will focus on: (i) monitoring and evaluation and (ii) Component coordination.

Legal Operational Policies	Triggered?
Projects on International Waterways OP 7.50	Yes
Projects in Disputed Areas OP 7.60	TBD

Summary of Screening of Environmental and Social Risks and Impacts

The project will bring about numerous environmental benefits i.e. positive impacts on waste/wastewater management via investments and better regulatory enforcement, minimized damage caused by storm, and - via better efficiency - reduced the amount of discarded catch. The potential adverse environmental risks/impacts would be associated with

investments under components 1, 2. The infrastructure investments under comp. 1 are mostly of medium scale. The transferred activities of advanced technologies to capture fishery, production of shrimp culture and farming under comp. 2 are at provincial level. The main adverse environmental risk and impacts would be those associated with construction activities and operation on the project infrastructures and technology transfer activities such as fishing ports, cultivation/breading shrimp and other aquacultures. The environmental risks and impacts during construction would be mostly temporary, predictable and/or reversible. The main risks and impacts during operations associated with operation of fishing ports, cultivation/breading shrimp and other aquacultures. These risks and impacts during operation are anticipated substantial, manageable, and long-term; however, their magnitudes are anticipated lower compared to condition where spontaneous fishing, breeding, and cultivation of aquaculture are let to be continued in the future. Given the investments type, location, sensitivity, and the scale, nature, and magnitude of potential environmental risks and impacts, the environmental risks are classified as substantial at this stage.

It is expected that the project proposed activities will have positive social impacts by financing fishery infrastructures and equipment, application of advanced technologies in aquaculture, logistic services, improving capture fishery efficiency and reducing post-harvest losses, reduce disease and improve blackish shrimp productivity, quality, efficiency and resilience to climate change. Although the construction and upgrading of infrastructure (large fishery hubs, fishing ports grade I and II, storm shelters and fisheries surveillance) to reach the standardized scale, may require land acquisition, and there may be a need for relocation of households, as well as a restriction to access in relation to infrastructures and livelihood opportunities activities. Considering the volume and complexity of land acquisition and resettlement required, the number of contracted workers to be mobilized, and the range of other social impacts and risks identified in the desk review and assessment a substantial social risk rating is justified. Given the scale of the proposed infrastructure, it was expected a potentially significant risks/impacts by the influx of labor to project areas. These interventions may also have impacts on community health and safety such as road safety and transmission of STDs. These impacts will be occurring across a wide geographical area, affecting ethnically diverse populations and a wide array of fishery-based livelihood activities. Also, there are additional social risk management requirements specified by the new ESSs of the World Bank. The responsibility for land acquisition and resettlement lies principally with district government units, who may not have the capacity to deliver the land required for the project in a timely fashion.

In line with ESF requirements, the Borrower will develop by appraisal (i) the first ESCP which could be adjusted during the project life keeping with the evolution of E&S risks and impacts; (ii) a draft SEP; (iii) a draft ESMF which covers all ESSs except ESS9 for activities that have not yet been identified during preparation; (iv) ESIAs/ESMPs for identified investments of provincial subprojects; (v) a draft RPF; (iv) RAPs for identified investments, (vii) a draft GBV/SEA action plan, and (viii) review the existing grievance mechanism (GM) against ESF requirements.

Note To view the Environmental and Social Risks and Impacts, please refer to the Concept Stage ESRS Document**.**

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