



Additional Financing Appraisal Environmental and  
Social Review Summary  
Appraisal Stage  
**(AF ESRS Appraisal Stage)**

Date Prepared/Updated: 01/18/2022 | Report No: ESRSAFA310



**BASIC INFORMATION**

**A. Basic Project Data**

|                            |  |                               |                               |
|----------------------------|--|-------------------------------|-------------------------------|
| Country                    | Region   | Borrower(s)                   | Implementing Agency(ies)      |
| Vietnam                    | EAST ASIA AND PACIFIC  | Socialist Republic of Vietnam | ODA PMU of Vinh Long Province |
| Project ID                 | Project Name   |                               |                               |
| P177314                    | Vinh Long City Urban Development and Enhanced Climate Resilience Project Additional Financing  |                               |                               |
| Parent Project ID (if any) | Parent Project Name  |                               |                               |
| P171700                    | Vinh Long City Urban Development and Enhanced Climate Resilience Project in Vinh Long Province |                               |                               |
| Practice Area (Lead)       | Financing Instrument   | Estimated Appraisal Date      | Estimated Board Date          |
| Urban, Resilience and Land | Investment Project Financing   | 1/20/2022                     | 3/31/2022                     |

Proposed Development Objective

To improve access to infrastructure and connectivity and to reduce flood risk in the urban core area of Vinh Long City.

| Financing (in USD Million)      | Amount        |
|---------------------------------|---------------|
| Current Financing               | 202.20        |
| Proposed Additional Financing   | 2.00          |
| <b>Total Proposed Financing</b> | <b>204.20</b> |

**B. Is the project being prepared in a Situation of Urgent Need of Assistance or Capacity Constraints, as per Bank IPF Policy, para. 12?**

No

**C. Summary Description of Proposed Project [including overview of Country, Sectoral & Institutional Contexts and Relationship to CPF]**

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19. The proposed project will take an integrated multisectoral approach to promote the economic and demographic densification of Vinh Long’s urban core, thereby unlocking the city’s development potential and enabling the city to function as an economically and physically integrated metropolitan area. The project investments include a comprehensive set of structural and nonstructural interventions to improve access to infrastructure and reduce flood and environmental pollution risk in the urban core area of Vinh Long City, through developing flood control systems and nature-based solutions, wastewater collection and treatment, as well as key transport links.

20. These measures will eliminate the physical constraints to development in the urban core area, increase land values, stimulate private capital investments, and reduce the pressure for urban sprawl. Increased demand on land will create an opportunity for the local government in Vinh Long to capture some of the associated land value increase from private development. By providing comprehensive improvement to infrastructure in the urban center and increasing the connectivity of these areas to other parts of the city, the project is expected to improve the living conditions of the poor and vulnerable populations and increase their accessibility to jobs and public services. Citizens and community organizations will be engaged throughout the project implementation process to raise their awareness about flood risks and enhance their ownership of the project. Providing technical assistance to improve urban planning, transport management, and the O&M of infrastructure will enable the city to become more interconnected, livable, and resilient to natural disasters.

21. The project will be implemented with due consideration to COVID-19 and will seek to minimize the risk of disease transmission through stakeholder consultation and engagement. While the outbreak is still prevalent, stakeholder consultations and engagements will avoid large public gatherings and make use of online channels. To mitigate the risk of future disease transmission, the project is designed to strengthen municipal wastewater services and make infrastructure more resilient to potential future outbreaks.

22. The project is organized around four components. A detailed description of the project is included in annex 1. A map showing the geospatial location of the investments is presented in annex 4.

Component 1: Flood Risk Management and Environmental Sanitation (Total Cost: US\$93.0 million; IDA Credit: US\$73.8 million; Development-related Infrastructure Investment Vehicle [DRIVE] Grant: US\$17.1 million; Counterpart Funds: US\$2.1 million)

23. The objective of this component is to reduce flood-related risks and improve environmental sanitation in the urban core of Vinh Long City through investments in drainage, flood protection structures, sewage networks, and wastewater treatment. In addition to improving the environmental sanitation conditions in the city, the upgrading of wastewater collection and treatment in Vinh Long will contribute to improving surface water quality. Design of this component was based on the existing national building codes and standards and investment proposals were selected based on assessment of the flood risks, including flood hazards and the vulnerability of the affected community. Investments will consist of a balance between gray and green infrastructure (or nature-based solutions).

Subcomponent 1.1: Flood risk mitigation and urban drainage

24. This subcomponent will finance flood risk mitigation structures such as embankments and tidal sluice gates, rehabilitation, and improvement of the canal and drainage system in the city core areas, and investments in green infrastructure to retain and infiltrate rainwater. A polder approach will be used for flood risk mitigation, which can be expressed as a structural system consisting of (a) a closed ‘ring embankment with tidal sluice gates’ to protect areas on the edge of rivers from high water levels ( that is, river and tide floods) and (b) a drainage system including regulated sluice gates, open canals, sewers, stormwater retention, and pumps to facilitate runoff of rainwater.

25. In line with city planning, three small polders will be established along the small branches of the Co Chien river, to prioritize flood protection for the existing dense urban areas (1,788 ha across seven urban wards). The design



of the polders will ensure that the navigation needs and the water flow in the main branches of the Co Chien river are preserved. The area to the south, which is predominantly agricultural land, is reserved for urbanization over the next 20 years, according to the city's Master Plan. This area would be protected in the future as it becomes urbanized, either through an expansion of the polder structure or through elevation of the ground level for new development, combined with the creation of additional retention capacity in low-lying areas. A hydraulic modeling study was completed to assess the city's flood risk with updated data, analyze the cost benefit of various investment options, and demonstrate how green solutions such as retention areas could play a more important role as part of the overall flood risk mitigation strategy. The stabilization of the polder embankment will consider green bioengineering methods. Where possible, amenities comprising green spaces with native and shade providing tree species and promenades with tracks and boardwalks along the embankment will be provided for both cyclists and pedestrians to turn the waterfront into an attractive recreational area.

26. Urban drainage investments will finance 30 km of new and upgraded drainage pipeline as well as dredging of 22 km of canals including bank improvements. These investments are critical for enhancing the capacity of rainfall capture, retention, conveyance, and infiltration to reduce flood risks and sustain the significant private and public investments in the inner parts of the city. The designs of drainage infrastructure are in compliance with the existing national building codes and standards and are based on up-to-date climate data. Climate change scenarios produced by the Ministry of Natural Resources and Environment (MONRE) have been incorporated into hydraulic modeling work for resilient measures such as green infrastructure and nonstructural approaches. Secondary flow paths for the conveyance of floodwater in excess of the drainage system capacity will be considered. Low-lying areas in the urban center, often occupied by relatively low-income inhabitants, are particularly vulnerable and need extra care.

27. Given the semidiurnal tide regime in the project area (high tide and low tide occur twice per day), the polder system will be operated for drainage purposes during the rainy season and during the dry season, the sluice gates will be operated flexibly, in combination with improved canals, to create a valuable, high-volume urban reservoir for the city.

#### Subcomponent 1.2: Wastewater collection and treatment system

28. This subcomponent will finance the construction of a separated stormwater and wastewater collection system, including 58.3 km of primary and secondary sewers, over 105.7 km of tertiary sewers, 8 pumping stations, household connections, and a sequencing batch reactor (SBR) wastewater treatment plant (WWTP). Wastewater collection and treatment will be prioritized for urban inner areas (covering seven wards: 1, 2, 3, 4, 5, 8, and 9), with an estimated service population of approximately 140,000 by 2035, covering a land area of about 2,060 ha. The treatment capacity of the WWTP in 2023 is estimated to be up to 15,000 m<sup>3</sup> per day-night. To improve monitoring and control, a Supervisory Control and Data Acquisition (SCADA) system will be installed at the WWTP.

29. The project will provide technical assistance to explore options to involve the private sector in the construction and operation of the WWTP through a design build operate (DBO) contract, to improve the quality, sustainability, and cost-effectiveness of wastewater services. The use of renewable energy sources such as solar energy will be explored to meet a portion of the treatment plant's energy demand.

30. Investments in the new wastewater treatment system are expected to result in improved and financially sustainable wastewater collection and treatment that will better protect human health by improving the resilience of the city to infectious disease outbreaks, including the current COVID-19 pandemic. The physical investment identified under this subcomponent will be complemented by an IEC campaign described in Component 4 of the project.

#### Component 2: Strategic Corridors Development (Total Cost: US\$34.2 million; IDA Credit: US\$34.2 million)

31. The objective of this component is to increase connectivity and flood protection capacity in Vinh Long. This component will finance prioritized investments in roads identified in the city's master plans and will specifically



finance three urban roads. The first two roads run through the existing built-up area, creating important vertical and horizontal links in the urban road network, while the third road diverts intercity traffic from the national roads and future expressway and serves as a development boundary to the south. Two of these three roads in the south also form part of the overall flood control scheme, serving as the boundary of the current and future polder system.

32. The proposed roads will improve traffic safety by providing alternative routes for the intercity traffic to bypass the city center; provide better accessibility for residents to jobs, education, and other services; and allow for mixed land uses and densification in less flood-prone areas. Increased accessibility and connectivity because of the new and improved transport infrastructure is likely to increase land values and investment opportunities along transport corridors, which is value-creation that the Government can capture using a variety of mechanisms. Land use regulations and development control will be carefully considered along the road in the south that forms the city's development boundary. This should enable the city to proactively guide urban growth to areas with lower flood risk and densify the urban core area while minimizing the risk of urban sprawl.

33. The project will also promote nonmotorized transport options and consider the future creation of urban public transport networks in the design of main roads. The road width will be based on sound analysis of travel and traffic demand. Traffic safety issues will be thoroughly reviewed and addressed, especially at intersections with major roads and transit roads of national highways/bypasses, as well as pedestrian crossings. To address the potential impacts of climate change, road drainage structures will be designed based on hydrologic analyses that adopt climate change scenarios, while the elevation of roads will take into account projected increases in seawater levels. The design will also incorporate international experience in nature-based solutions such as 'green roads' comprising pervious pavement and water-absorbing tree pits and landscape, as well as universal access criteria to provide a network of accessible pedestrian routes with appropriate tactile pavement and improved sidewalk space and pedestrian crossings, while taking into account appropriate parking spaces for motorcycles to reduce obstruction to pedestrians.

Component 3: Resettlement Area Development (Total Cost: US\$26.1 million; Counterpart Funds: US\$26.1 million)

34. The project will try to minimize resettlement impacts through adopting fit-for-purpose standards and appropriate design; however, significant resettlement impacts are expected due to the proposed investments, particularly under the embankments in Component 1 and the roads in Component 2. An estimated 550 households may have to be relocated under the project. This component will ensure improved living conditions and security of tenure for those target communities who are subject to relocation and resettlement under the project.

35. An investment for technical and social infrastructure at the resettlement site in Ward 8 of Vinh Long City will be proposed with green and nature-based solutions incorporated, such as park connectors, water absorbing tree pits and landscapes, pervious pavements, stormwater detention ponds, raingardens, and so on. This resettlement site covers an area of 12.5 ha, which is currently agricultural land and not occupied by any households, easing the compensation process. In addition, the resettlement site is assessed to be appropriate, as it is just 5 km from the city center and close to National Road 53. Services (water, drainage, electricity, and access roads) are already present along the proposed resettlement area, which will facilitate the development of the site.

Component 4: Enhancing Climate Resilience and Leveraging Disruptive Technologies in Urban Management (Total Cost: US\$15.9 million; IDA Credit: US\$7.4 million; DRIVE Grant: US\$0.7 million; Counterpart Funds: US\$7.8 million)

36. This component aims to improve urban management in a climate and risk informed manner and to set the stage for the development of Vinh Long as a smart city through leveraging disruptive technologies. The proposed project will support implementation of Vinh Long's smart city framework currently being developed, through investments in data and information and communication technologies (ICTs) including software, in conjunction with



counterpart fund from the province. Combined, these activities should improve knowledge of the built and natural environments, which can better inform decision making in the future. For example, it will create a visual representation of flood risk overlaid with existing people and assets to guide future development in a risk-informed manner, away from high flood and climate risk. Analyzing data related to lack of access to basic services, population income level, and density will also enable decision makers to identify areas of high health risk to prepare for and respond to future health crises.

37. Key investments under Component 4 include an integrated flood risk management information system, strengthened IEC and O&M on wastewater management, a geospatial data sharing platform to improve data sharing across different departments, and an intelligent transportation system (ITS). Component 4 will also provide technical implementation support to the implementing agencies in Vinh Long. Component 4 includes the following subcomponents:

(a) Subcomponent 4.1: Developing an integrated flood risk management information system. This subcomponent will result in a dynamic model that will enable technical experts and decision makers to better predict flood events and respond to flooding with an integrated set of actions. The following activities will be supported under this subcomponent: (i) training, workshops, and provision of technical assistance to enhance the capacity of staff in Vinh Long on flood risk management, including incorporating nature-based solutions; (ii) improving the availability of information on predicted river water levels and rainfall in Vinh Long; (iii) developing a protocol for operating sluice gates when extreme conditions are predicted; (iv) developing an early warning system to inform the population when extreme flood situations are forecasted, as well as conducting public awareness raising through existing mass media and organizations; and (v) developing an O&M framework and identification of suitable information systems for improving O&M of the flood control structures.

(b) Subcomponent 4.2: Strengthening IEC and O&M on wastewater management. This subcomponent will result in the public being more informed of the health risks associated with poor water and sanitation practices and improved institutional management of the WWTP system. To maximize the public health benefits of the wastewater investments under Component 1, the project will conduct a community-based IEC campaign to encourage households to connect to the sewer system and maintain their connections in good working conditions. The IEC campaign is expected to improve the awareness of Vinh Long citizens on the importance of hygiene practices such as frequent handwashing with soap and other behavioral practices, to reduce transmission of diseases. The institutional development and strengthening activities under this subcomponent will include a focus on contingency planning to ensure the continuity of wastewater services during the current COVID-19 pandemic and future potential pandemics. The project will also provide comprehensive capacity building and training for all stakeholders on managing the service contract of the WWTP and the network, including associated facilities; developing and strengthening institutions in the areas of asset management and O&M arrangements, including transparency and accountability mechanisms; connecting households to the network; improving septage management; and developing cost-reflective tariff mechanisms.

(c) Subcomponent 4.3: Developing a geospatial data sharing platform. This subcomponent will support the development of a web-based geospatial data sharing platform to integrate multiple data sources from different departments in Vinh Long. The platform will draw on the outputs of the ongoing World Bank-financed Vietnam Improved Land Governance and Database Project and will be used across line departments for spatial planning and development. Proper institutional mechanisms and procedural guidelines for data sharing and updates will need to be developed, as well as strengthening the capacity to manage and use the data platform to support various city planning and management functions. In addition, this activity will pilot community-based initiatives using mobile applications to improve real-time monitoring of issues such as flooding and erosion to generate asset and exposure



data that can be added to the database. A study will also be conducted to analyze land subsidence rates and patterns in Vinh Long, using satellite imagery to support future urban planning.

(d) Subcomponent 4.4: Improved transport management. This subcomponent will support the ongoing efforts of the city to improve the effectiveness of transport management, integration of transport and flood management, and application of smart transportation system. This activity will (i) integrate transport data with the city geospatial data sharing platform, to enable travel demand analysis as inputs to transport planning; (ii) improve traffic safety through deploying ITS, including installing traffic signals at intersections along the project corridors; (iii) in coordination with DOT's ongoing proposal, install speed camera and vehicle weight control system within the city area; and (iv) enhance DOT staff capacity in the application of ITS in traffic management and transport planning.

(e) Subcomponent 4.5: Project implementation support. Technical and financial resources will be available to ensure efficient implementation of the project that adheres to social and environmental standards while ensuring transparency in procurement and high-quality construction. Technical assistance will be provided for (i) the preparation of technical designs for infrastructure investments; (ii) independent monitoring of Environmental and Social Framework (ESF) standards; (iii) construction supervision; (iv) independent financial audits; and (v) strengthening implementation capacity for project management, ESF standards, financial management (FM), procurement, and monitoring and evaluation (M&E). Project implementation will be undertaken with consideration for the COVID-19 pandemic. Particular measures, such as remote project management and supervision tools to limit in-person interactions, will be taken to avoid virus transmission when necessary.

## D. Environmental and Social Overview

D.1. Detailed project location(s) and salient physical characteristics relevant to the E&S assessment [geographic, environmental, social]

Vinh Long city is the capital of Vinh Long province, the second smallest province among the 13 provinces in the Mekong Delta Region (MDR). The city is about 140km southwest of Ho Chi Minh City and 40km north of Can Tho city (the centre of the MDR provinces). The two main branches of the Mekong river, namely the Co Chien river (800 to 2,500m wide, with a maximum flow rate of 12,000 to 19,000m<sup>3</sup>/s), and the Tien river run along the northern part of the city and are influenced by irregular semi-diurnal tidal. These rivers are connected to smaller rivers and a relatively dense canal system in the city. Light salinity intrusion affects some communes along the Co Chien river several days annually. The Rainy season lasts from May to November with rainfall accounts to 93 to 96% of annual precipitation (averaged at 1,300-1,700mm per year). Vinh Long city is subjected to frequent flooding mainly due to heavy rain, high tides and contributions of flood from the Mekong river, urbanization and the impacts of climate change. Rainwater follows existing ditches and drains to waterbodies. Inner city canals have been sedimented and/or encroached for housing, garden or even waste dumping. Canal flow is only fed by rainwater and flood water several months each year during the rainy/flood season, however, even during that time, water pollution from untreated domestic wastewater is obvious, evidenced by the very dense floating vegetation (water hyacinth causing frequent blockage). Stagnant black water exists along the small ditches that run around residential clusters where drainage/sewer is not available causing odour, unhygienic conditions and nuisance. River sand and clay are the main construction materials available in Vinh Long.

Agricultural land, gardens and urbanized built-up areas are the most common ecosystems in Vinh Long province. Along the Co Chien river concrete structures are common. According to the provincial's environmental report, only small patches of natural vegetation with low biodiversity value remain, and are scattered along the rivers/canals



banks. However, some sections of the inner city canal embankments remain relatively green with narrow strips of vegetation and trees including water coconuts, a typical aquatic tree species in the Mekong Delta. The existence of aquatic fauna, particularly river fish, and birds are diverse, with some species with high economic and/or biodiversity values. In urban area, the aquatic environment has been affected by pollution from urban dense residential centres. Vinh Long province's Biodiversity Conservation Plan (year 2015-2020 with vision to 2030, approved in 2016) proposed a research program on planting native trees and creating green space in urban areas together with a communication program on biodiversity and environmental protection. There are number of cultural heritage sites including several national-recognized sites in Vinh Long.

Vinh Long city has 11 administrative units, comprising of 7 wards and 4 communes, covering a total area of 48.01 km<sup>2</sup>. According to the Census 2014, Vinh Long city has a population of 141,136 people, of which 96.3% are engaging in agriculture. The urban residents account for 76.21%, and are concentrated in the inner urban wards, in which ward 4 is the most populated (18,837 people). The population density is 7,982 people/km<sup>2</sup>. The city's economic structure in 2015 includes commercial-services (64%), industrial and handicraft (32%) and agriculture and fisheries (4%). The economic structure has shifted, gradually reducing the proportion of agriculture-forestry and fishery sector and increasing the industry-construction and services sectors (up to 33.1%, 22.3% and 44.6% respectively). The percentage of poor and near poor households in Vinh Long city has decreased over the years, at 4.3% and 2.8% in 2016, respectively. There are 3 major ethnic groups living in the city, where the Kinh accounts for the major percentage (99.6%), Chinese accounts for 0.3% and Khmer accounts for 0.1%.

Project Additional Financing: The AF will be implemented in Vinh Long City, the same location of the parent project.

#### D. 2. Borrower's Institutional Capacity

The ODA Project Management Unit (PMU) of Vinh Long province will be the responsible unit in charge of project preparation and implementation. At provincial administrative level, Vinh Long Provincial People's Committee (PPC) and its relevant departments (DOC, DOT, DPI, DONRE, DOCST, DOIC, DARD, DOF) will be playing coordination roles, engaging in various reviewing and approving procedures. Vinh Long City People's Committee (CPC) and its divisions will be providing support according to their areas of responsibility. Through the on-going Bank-financed SUUP (Scaling up Urban Upgrading Project), Vinh Long authorities are familiar with the Bank's Environmental and Social Safeguard policies, procedures and requirements. As this is the first project applying the Environmental and Social Framework (ESF) in Vinh Long, some aspects of the ESF are new to the Vinh Long authorities (e.g. labor, stakeholder engagement, community health and safety, GBV,)). Therefore, targeted training and capacity building to deal with these novel aspects of environmental and social (E&S) risk management will be necessary, and carried out during project preparation and implementation.

Vinh Long ODA PMU, situated within the province's Department of Planning and Investment (DPI), is currently implementing the early stages of the on-going Vinh Long subproject under the World Bank financed Scaling-up Urban Upgrading Project (SUUP). The PMU has been provided with the safeguard training courses, and is managing E&S risks under the previous Bank's safeguards policies. The personnel (including E&S staff) assigned for the SUUP are still limited in terms E&S risk management capacity and experience and have been overloaded with other administration and project management responsibilities. A Grievance Redress Mechanism (GRM) focal point, within the PMU, will be appointed in order to provide coordination of different administrative levels for handling complaints in a timely and satisfactory manner. The PMU plans to recruit additional staff being in charge of E&S standards in the new project, and training on the ESF would be required. Furthermore, the responsibility for land acquisition and resettlement lies principally with the city government units, which may not have the capacity to deliver the land required for the





project in a timely fashion. The Bank team also expects a significant increase in Borrower’s demand for continuous support in E&S risk management during preparation and implementation, as compared to the previous safeguard policies, and anticipates that this will require additional resources and may affect the preparation time.

Project Additional Financing: There would be no change to implementation arrangements under the AF. The official development assistance (ODA) PMU of Vinh Long Province, which is currently implementing the World Bank-financed SUUP subproject in Vinh Long City, is proposed to be the implementation unit of the AF.

## II. SUMMARY OF ENVIRONMENTAL AND SOCIAL (ES) RISKS AND IMPACTS

### A. Environmental and Social Risk Classification (ESRC)

Low

#### Environmental Risk Rating

Low

The project environmental risks and impacts would mainly be related to the implementation and operation of the investments under Component 1, 2 and 3. The project location is characterized by varying degrees of modification, ranging from complete surface sealing and absence of vegetation of an urban setting to highly modified patches of intra-urban habitats. The bulk of anticipated impacts would be related to construction works and include common risks such as dust, noise, vibration, generation of solid wastes and wastewater, water quality reduction, localized flooding and related unhygienic conditions, disturbance to landscape; interruptions to public services and infrastructure, traffic and traffic safety issues, loss of some trees, vegetation cover and benthic species, health and safety risks to workers, etc. Most of these are mostly temporary, at low to moderate level and reversible, however, some incremental disturbance and safety risks to the affected parties in urban and semi-urban areas when construction activities are carried out parallelly with those under the SUUP. In addition, there are also other specific risks and impacts related to the location and typology of investments such as safety risks related to UXO left from the war which ended in 1975, damages to existing weak structures due to dredging or piling, serious pollution from improper handling, storage and disposal of dredged materials, localized flooding, nuisance and visual impacts. The main risks and impacts during operation would be permanent changes in land use and elevated local ground elevation at and/or along the new roads. The new roads may cause access disruptions and community fragmentation, change drainage patterns, or increased traffic safety risks. These could result from poor planning/design and inadequate stakeholder consultation and engagement during project preparation and implementation. Induced development such as new residential and commercial structures along new/improved urban roads would be expected, however, with low to moderate impact within an existing urban zone. Regarding wastewater system operations, there are pollution risks due to failures at the pumping stations and treatment plant. Given the type and scale of the project related investment items, the level of GHG emissions is expected to be minimal. Changes in landscape, disrupted access to water fronts from river/canal side, pollution and localized flooding may also be issues related to canal and river embankments construction and operation. The PMU has limited environmental management capacity as existing staff do not have experience in projects applying ESF. Meanwhile, while at the same time they are also managing a Bank-financed SUUP subproject which has to comply with the Safeguard Policies. Therefore, there is a risk that the resources allocated for managing environmental and social issues of this Project may not be adequate, affecting the environmental performance/compliance to the ESSs of both projects. However, there is also an opportunity to encourage to hire qualified ES staff and pool resources for various projects. Although the PMU participated in a two-day ESF training organized by the World Bank in December 2019, its E&S capacity assessment conducted during project preparation revealed the need for further capacity

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building in specific ESSs during project implementation. The environmental assessment conducted during project preparation confirmed the project's Substantial Environmental risk as classified at the project identification stage. The AF will not involve any physical infrastructure improvements or works of any kind or any analytical, advisory or other activities which could have or lead to downstream physical, social or environmental impacts. The AF activities are expected to result in negligible environmental risks and impacts.

**Social Risk Rating**

Low

Overall, the project is expected to have a positive social impact. By improving access to infrastructure and reducing flood risk in the urban core area of Vinh Long city, and increasing the connectivity, the project will improve the living conditions of their poor and vulnerable residents, as well as their accessibility to jobs and public services while reducing vulnerability flood related risks. The project will also support the city in developing a comprehensive response, for preventing and protecting human health during infectious disease outbreaks through newly construction/improvement of the sanitation facilities. According to the ESIA's results, potential social risks and adverse impacts include (i) land acquisition from an estimated 1,800 PAHs, of whom 550 may have to be relocated or resettled within their existing land plot; (ii) the loss of agri. land, affecting farmers' livelihoods; (iii) loss of assets affixed to lands, commercial and other properties; (iv) possible additional land acquisition, under city financed domestic projects, and along the urban main roads for future development may lead to a perception that these are associated with the WB financed project; (v) relocation of graves; (vi) the risk that city government units responsible for land acquisition and resettlement may not have the capacity to deliver the land and the resettlement site required for the project in a timely fashion, (vii) the risks and impacts on community health and safety due to construction works (wastewater, dust, noise) and operation (traffic accidents), and related risks from the influx of labor into low income project areas, characterized by poor and vulnerable residents, during construction (e.g. Gender-based violence, sexual exploitation and abuse, and the spread of sexually transmitted and communicable diseases); (viii) increase of conflict between users in wastewater discharge connection; and (ix) uneven access to project benefits among vulnerable groups such as poor households and female headed households. In terms of resettlement impacts, under comp. 1, investments related to drainage improvement will result in limited and temporary socio-economic impacts, as it will take place mainly within the footprints of existing infrastructure. Also under comp. 1, the resettlement impacts related to waste water collection planned (including the construction of a wastewater treatment plan - WWTP) will include 930 HHs affected by land acquisition (including 335 HHs to be relocated). The Flood control system works planned under comp. 1, particularly the upgrading of canals/embankment, may lead to significant resettlement impacts (around 600 HHs affected, including 280 HHs to be relocated). In particular, livelihoods may be affected along the densely populated canals (i.e. 3km-long of both sides of Long Ho canal). Under comp. 2, three new roads will be constructed (18km long and 30 to 42m wide) through mainly agri. land requiring significant land acquisition (an estimated 750 HHs will be affected, including and around 215 HHs to be relocated). Comp. 3 will require the acquisition of 12.5 ha of agri. land (120 HHs), which will also have permanent economic impacts. The project counterparts will need to familiarize with the new content and concepts of the ESF, especially the new social risk management requirements (labor and working conditions, non-discrimination, community health and safety, cultural heritage, and stakeholder engagement). The AF is purely focusing on scaling-up activities under Comp 4, which do not involve in any physical infrastructure improvements or works that could have or lead to adverse social impacts. The AF will also not involve any kind of land acquisition or resettlement or people's livelihoods. Technical assistance related activities foreseen under the AF will not lead to any downstream activities (e.g., through the design of major infrastructure investments) that may require land acquisition or resettlement.

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## B. Environment and Social Standards (ESSs) that Apply to the Activities Being Considered

### B.1. General Assessment

#### ESS1 Assessment and Management of Environmental and Social Risks and Impacts

##### **Overview of the relevance of the Standard for the Project:**

The proposed project will have positive environmental and social impacts and benefits, including: (i) improved environmental sanitation and urban landscape; (ii) increased wastewater collection and urban drainage capacity; (iii) minimized discharge of untreated wastewater into the environment; (iv) reduction of public health risks associated with water-borne diseases and related healthcare costs; (v) reduction of safety risks and asset loss caused by inundation; (vi) increased accessibility of local people to nearby areas; (vi) additional economic, social, environment and aesthetic benefits from the construction of linear parks along river/canal/lake embankments.

Based on project characteristics and the key findings of the E&S diligence conducted during project preparation, ESS1 (Assessment and Management of Environmental and Social Risks and Impacts), ESS2 (Labor and Working Conditions), ESS3 (Resource Efficiency and Pollution Prevention and Management), ESS4 (Community Health and Safety), ESS5 (Land Acquisition, Restrictions on Land Use and Involuntary Resettlement), ESS6 (Biodiversity Conservation and Sustainable Management of Living Natural Resources), ESS8 (Cultural Heritage), and ESS10 (Stakeholder Engagement and Information Disclosure) are deemed relevant to the project.

The bulk of anticipated impacts would be related to construction works and operation include common risks such as dust, noise, vibration, generation of solid wastes and wastewater, water quality reduction, localized flooding and related unhygienic conditions, disturbance to landscape; interruptions to public services and infrastructure, traffic and traffic safety issues, loss of some trees, vegetation cover and benthic species, health and safety risks to workers, community health risks related to labor influx, and risk of unexploded ordnances. Most of these are mostly temporary, at low to moderate level and reversible. The PMU has limited environmental management capacity as existing staff do not have experience in projects applying ESF. The environmental assessment conducted during project preparation confirmed the project's environmental risk which is still rated as substantial.

The City prepared an Environmental and Social Impact Assessment (ESIA) in accordance with ESS1 and relevant ESSs and government regulations. The potential negative environmental and social impacts are assessed as moderate and associated with the proposed physical investments under Component 1, 2, and 3. These include commonly known construction impacts and risks, such as: (i) disturbance to the habitats of aquatic species; (ii) increased levels of dust, noise, vibration; (iii) pollution risks related to the generation of waste and wastewater, particularly moderate amounts of non-contaminated excavated/dredging materials; (iv) traffic disturbances, and increased traffic safety risks; (v) risks of bank erosion and embankment subsidence as well potential negative impacts to existing weak facilities during the river/canal embankment process; (vi) interruption of existing infrastructure and services such as water and power supply; (vii) disturbance to daily socio-economic activities in the project area; (viii) health and safety issues related to the public and the workers at construction sites and labor influx; and (ix) social impacts associated with land acquisition and construction disrupting businesses, agriculture and aquaculture activities as well as waterway traffic due to construction related activities and mobilization of workers to the site. Rehabilitation of canals, rivers, lakes, and ponds within the city would generate a moderate total amounts of sediments.



The Environmental and Social Assessment (ESA) finds that the environmental baseline of the project areas is characterized by a low sensitivity with varying degrees of modified habitats, ranging from complete surface sealing and absence of vegetation to highly modified patches of intra-urban habitats. The site survey during the ESA process found that some sections of the proposed road alignment would run through existing agricultural/ vacant land in the city. Canal improvement may disturb existing embankments where there may be some patches of vegetation cover. The project's excavation and dredging works may affect existing green space, vegetation cover and trees, birds and aquatic lives. Given the location and environmental setting of the project, minor impact on biodiversity is anticipated. The ESIA includes measures to avoid, mitigate, minimize or compensate for the disturbance or negative biological impacts through the siting of the works, engineering design or construction practices.

An Environmental and Social Management Plans (ESMP) has been prepared as an integral part of the ESIA to: (i) ensure compliance with the applicable provincial and national laws, regulations, standards, and guidelines; (ii) ensure that there is sufficient allocation of resources within the project budget for implementation of ESMP-related activities; (iii) ensure that environmental risks associated with the project are properly managed; (iv) respond to emerging and unforeseen environmental issues not identified in the subproject ESIA; (v) provide feedback for continual improvement in environmental performance. The ESMP proposes site-specific mitigation measures to address the site specific impacts during construction and operation. The mitigation measures will be incorporated into construction bidding/contractual documents and the Contractor-Environmental and Social Management Plans (C-ESMPs) for implementation by the Contractor.

An Environmental Social Commitment Plan (ESCP) has been prepared which sets out the activities and actions to be carried out by the city during project implementation and could be adjusted during the project life keeping with the evolution of E&S risk and impacts.

A grievance redress mechanism has also been developed to provide guidance on the reception, recording, handling, and reporting of complaints that may be encountered during project implementation. The World Bank EHS Guidelines have also been applied for developing ESA instruments. Consultation during the preparation of the ESMP, ESIA and other ES tools and disclosure of these documents has been carried out in accordance with the ESS10.

During project preparation, as a part of the ESA process the Borrower has also developed: (i) a stakeholder engagement plan (SEP); (ii) a RPF; (iii) a labour management procedure (LMP); and (iv) a project level GRM. The affected people and communities and other relevant stakeholders have been consulted on the draft ESIA, RPF, SEP, LMP, and ESMP in January and February 2020. The feedback from the consultation have been incorporated into the project design, the final draft documents. The draft versions of these documents were disclosed locally (on February 20, 2020) in an accessible place, and in a form and language understandable to project-affected parties and other interested parties as set out in ESS10, and were disclosed on the World Bank's website on March 18, 2020. The final ESIA, RPF, SEP, LMP, and ESMP will also be disclosed locally at the project PMU office and project areas and the World Bank external website in April, 2020.

In the context of the outbreak and spread of COVID-19, the Government of Vietnam (GOV) has taken various restrictive measures, imposing strict restrictions on public gatherings, meetings and people's movement, and others advising against public group events. People have been advised to exercise social distancing, and specifically to avoid public gatherings to prevent and reduce the risk of the virus transmission. These restrictions have affected Bank



requirements for public consultation and stakeholder engagement in the project. The Bank’s Technical Note on Public Consultations and Stakeholder Engagement was issued to guide the public consultation and stakeholder engagement activities during COVID-19. The Note offers suggestions to the client on managing public consultation and stakeholder engagement, with the recognition that the situation is developing rapidly, and careful regard needs to be given to national requirements and any updated guidance issued by the World Health Organization (WHO). It is important that the alternative ways of managing consultation and stakeholder engagement discussed with the client are in accordance with the local applicable laws and policies, along with guidance from the WHO, especially those related to media and communication.

The AF will have positive impacts by maximizing the achievement of the Project Development Objective by scaling up activities that enhance the quality of the management and sustainability outputs delivered under the Component 4 of the parent project. Given the nature of the AF activities, the adverse environmental or social risks and impacts are expected to be negligible. The project will not finance civil works or any analytical, advisory or other activities which could have or lead to downstream physical, social or environmental impacts. The AF will also not involve any kind of land acquisition or resettlement. ESS1, ESS2, and ESS10 are identified relevant to the project AF. The AF will require additional labor for implementation of its activities. Therefore, the project LMP has been updated. The project SEP has been updated to include stakeholder analysis and engagement plan for the AF’s beneficiaries. The project ESCP has also been updated to address the OHS related to implementation of the AF activities.

#### **ESS10 Stakeholder Engagement and Information Disclosure**

The project’s key stakeholders include the project implementing agency, relevant authorities at provincial, city and ward levels, consultants, construction contractors, WWTP operators, and local residents. Interested parties include the Vinh Long ODA Project Management Unit (PMU), provincial authorities and branches (PPC, CPC, WPCs), the agency responsible for monitoring and management of environment and natural resources (DONRE), the agency responsible for monitoring and management of irrigation and flood risk management and natural disasters (DARD), the agency responsible for urban planning and construction management (DOC), the department of transport (DOT) is responsible for planning, design and maintenance of transport system, the department of information and communication (DOIC) is responsible for ICT smart city framework, the department of culture, sport and tourism (DOCST) is responsible for tourist attraction and planning, and the Urban Public Works Companies (waste water and drainage, water supply, lighting, etc.). In addition, the Provincial Committee for Flood and Storm Control (CFSC) has a mandate to coordinate flood management and emergency response. There is a need to strengthen coordination of these fragmented institutional structures and consolidate the operations and maintenance strategy as part of an integrated flood management system. Also, collaboration with local administrations will be crucial for ensuring project management and implementation to required standards. In addition, other interested parties include mass media, research institutes/academies, local/international NGOs and development partners (ADB) working in the same area, mass organizations such as the Fatherland Front, the Women’s Union and the Farmer’s Union, and private businesses.

Of the key stakeholders who are affected parties, of primary concern are the poor/disadvantaged affected households that make up the residents of the low income areas likely to benefit by the project, but also who are likely to be most affected by the works. The Bank team collaborated with the Borrower in identifying “disadvantaged or vulnerable” project-affected individuals, or groups during stakeholder identification and analysis. A stakeholder



engagement plan (SEP) has been developed for this project to ensure transparency and meaningful consultation with the affected and interested parties. Stakeholder engagement and consultations have been and will be conducted throughout the project cycle. Regarding public disclosure, the E&S instruments prepared have been disclosed locally and made available in the Borrower’s website and Bank’s external portal.

For component 1, the beneficiaries should be in particular consulted on: (i) choice of the optimal options for the project roads alignment; (ii) choice of options for the engaged at early stage of tertiary sewer design of the plan for household connection. Local residents should be invited to discuss on the proposals for inner city canal embankments (width of site clearance); (iii) layout of the Resettlement Area; (iv) selection of process used for the WWTP and the impacts on the surrounding areas; (v) locations of camps and storage areas; and (vi) timing of the possible additional land acquisition along the Bank financed project roads. Consultation will take place in particular improvements and their commitments protecting the improved canals during the operation.

Gender-segregated consultations has also be conducted. The different needs for women and men (e.g., differentiated travel patterns, perception of safety, and universal access intersection design principles) should also be consulted with both local authorities (particularly DOT, DOC) and local residents. During the construction phase, the contractors would be required to carry out consultation with local authority and residents on siting the worker’s camps. As the city’s masterplan oriented Vinh Long development toward green city for tourism, DONRE and DOCST should be engaged in the design of relevant infrastructure such as bridges, canal/river embankments etc. The SEP, along with other social and environmental instruments, was subject to public consultation and disclosure per requirements of ESS10, and is be treated as a live document, to be regularly updated during project implementation. A project-wide Grievance Redress Mechanism (GRM) has been developed, and will be established in coordination with localized grievance redress processes in order to ensure that concerns are captured and addressed by the Project Management Unit. The existing GRM is the already-established mechanism embedded in all administrative levels (e.g. one stop shops at the ward and community level, and inspectorates at the city level), as well as and the people’s courts. This mechanism functions well in dealing with issues such as adjudicating land boundaries (at the commune level) or resolving the EHS impacts related to constructions. However, they can be less effective in addressing concerns related to compensation for land acquisition required by the project, or the allocation of resettlement plots. The project GRM will build on, and coordinate, these mechanisms to ensure that concerns are captured and addressed in a satisfactorily and timely manner. The SEP, GRM, ESCP and other relevant tools were disclosed in a timely manner, in an accessible place, and in a form and language understandable to project-affected parties and other interested parties as set out in ESS10, so they can provide meaningful input into project design and mitigation measures.

The SEP which was prepared for the parent project has been updated reflecting additional consultations with interested parties (i.e., AF targeted beneficiaries such as DOC, DONRE, DOIC, DARD, Urban Planning Division, CFSC). In addition, the SEP also cover additional parties in the form of technical assistance through consulting service providers (i.e. FMIS/GIS specialists, urban management technicians) The updated SEP has been redisclosed locally on January 11, 2022 and at the Bank’s external websites prior to the AF appraisal.

## **B.2. Specific Risks and Impacts**

**A brief description of the potential environmental and social risks and impacts relevant to the Project.**



### ESS2 Labor and Working Conditions

The Project workforce will include direct workers (directly employed by PMU), contracted workers (recruited by third parties such as contractors or as consultants), and primary supply workers. The project is not likely to engage community workers, as civil works will be the responsibility of contractors. Overall, the workers in Vietnam have been managed and protected under a relative comprehensive labor framework including the Labor Law (2012), the Law on Occupational Health and Sanitation (2015), the Social Security Law (2014). The policies and regulations stated in this legislation reflect the principles of ESS2 on issues such as fair treatment, non-discrimination and equal opportunities to workers, support the rights and benefits of the workers, recognizing workers' rights to establish or join associations of workers, prohibition on sexual harassments/forced labors/child labor (under 15), etc. As the PMU is a government entity where laws and regulations have been followed, trade unions and official grievance redress mechanisms exist, minimal risks related to ESS2 for direct project workers are foreseen.

With contracted workers, the majority (estimated at 200-250 workers during peak period) would be hired by construction contractors, many of them may come from other localities. The main risks would relate to health and safety at both construction sites and site accommodations where the workers are near or operating with construction machinery and equipment, and possibly some hazardous/flammable materials. Risks of contamination during infectious disease outbreaks if frequent and proper hygiene practices are not consistently applied at work site. Other risks relate to access to safe drinking water, power supply and limited availability of sanitation facilities. The occupational Health and safety performance of small contractors is usually weaker than that of the bigger ones. The ESMP includes a set of measures for managing these health and safety risks at both construction sites and worker's accommodation. Although the number and characteristics of contracted workers can only be estimated after construction contract signing, the risks related to discrimination, forced labor or child labor in the project can be considered to be low based on the experiences of past projects in the Mekong delta region. Nevertheless, a labor management procedure adequately covering the aspects outlined in ESS2 has been developed, and will be enforced by inclusion into bidding documents for implementation and monitoring. These procedures sets out the way in which project workers will be managed in accordance with requirements of national laws and ESS2. These procedures includes measures related to nondiscrimination in the recruitment and treatment of direct and contracted project workers. The ESMP also includes measures to avoid and prevent potential hazards to workers under an OHS management plan (OHSMP) which ensure that all applicable health and safety legislation and the requirements set out in ESS2 and relevant sub-sections of the World Bank Group General EHS Guidelines are met during the construction and operation phases of the project. As part of each contractors' C-ESMP, an OHSMP will also be prepared to include: (i) an occupational health and safety, communication and training program; (ii) provision of organization charts; (iii) safety regulations, responsibilities, accident and incident response and reporting, use of personal protective equipment (PPE), fire prevention measures, fall protection and emergency preparedness; as well as protections from communicable diseases (iv) first aid and emergency response and transfer during construction. Furthermore, the construction supervisors will be responsible for support services will ensure that all sub-contractors adhere with the project OHSMP and report incidents and accidents as well as non-compliances in timely manner. The Borrower will require the O&M contractor to develop, implement and maintain the OHSMP to ensure that all applicable health and safety legislation and requirements set out in the ESS2 and relevant sub-sections of the World Bank Group General EHS Guidelines are met during the operation. The borrower has developed, and where relevant include in the bidding documents, requirements for (ii) a worker's Grievance Mechanism (GM) which could address all workers complaints; and (iii) sensitization related to the availability of worker's Grievance Mechanism (GM) and to the respect of code of conduct to prevent and address potential harassment, child labor, gender or GBV/SEA issues,



intimidation and/or exploitation during the implementation of the activities financed under this project. The labor management procedures include assessment of OHS risks and impacts related to project activities as they are defined through preparation and proposed measures to manage those risks – in parallel with project ESA instruments.

The main primary supplier of the project would be sand suppliers as stones and other construction materials would be bought from suppliers in Vinh Long or other provinces. The number of project primary workers is expected to be limited, with much of the work being done mechanically. Due diligence review on labor and working conditions of primary suppliers has been completed as part of the ESIA. Furthermore, ESS2 monitoring requirements, included in the ESMP, also covers primary supply workers.

There is worldwide spread of Coronaviruses (Covid-19) which infect both animals and humans. Project personnel and workers may be exposed to and infected by Covid-19 which can cause mild disease similar to a common cold, while others cause more severe disease. To prevent Covid-19 exposure and infection to the project personnel and workers and transmission to the local community the following measures were included in the ESMP: Include Covid-19 prevention and control measures into the civil works and consulting packages; provide adequate hygiene and personal protection equipment to personnel and workers; minimize chance of exposure to staff, workers, and visitors; adhere to standard precautions procedures issued by the government; provide training on Covid-19 prevention to personnel and workers; closely monitor implementation measures by the PMU, construction supervision consultant, and the contractor.

The LMP which was prepared for the parent project has been updated covering the contracted workers (i.e., consulting service providers). The AF activities will not have other substantive changes to the LMP as the provisions were already in place to mitigate the risks to such workers. The updated LMP has been redisclosed locally on January 11, 2022 and at the Bank's external websites prior to the AF appraisal.

### **ESS3 Resource Efficiency and Pollution Prevention and Management**

The risks and impacts related to the use of raw construction materials and energy, release of pollutants, waste generation, the management of disposed dredged materials and potential other hazardous wastes, impact on community, have been assessed, and mitigation measures proposed during project preparation. The ESA process covered the risks and potential impacts on human and the environment, taking into account the standards measures in the World Bank Group Environment, Health, and Safety Guidelines. The ESMP proposes site-specific mitigation measures to address the site specific impacts during construction and operation. The mitigation measures will be incorporated into construction bidding/contractual documents and C-ESMPs for implementation by the Contractor.

In addition to such common construction impacts and risks and mitigation approach, type-specific issues with regards to resource efficiency and pollution prevention and management have been addressed. Particularly, the construction of the roads and WWTP would require substantial volume of materials (soil and sand) for ground levelling. The ESIA quantified the materials demand and the ESMP includes the measures to manage the potential environmental impacts related to the exploitation of such filling materials, to the extent controllable by the Project, for example only accept materials from the licensed suppliers/sand mine/borrow pits. WWTP operational concerns would be: (a) impacts on water quality at the receptor by the treated effluent; (b) energy consumption level for pumping and WWTP operations; (c) materials used, gas emissions, sludge generation and system failure risks during operation





phase of the WWTP. To address such potential impacts and risks, the Vietnamese National Technical Standard on Municipal Wastewater QCVN14-MT:2015/BTNMT issued by MONRE will be applied in designing the WWTP, such application will be in line with ESHG on Water and Sanitation. Energy-saving in relation to WWTP operations would be achievable through system design and application of alternatives (e.g. minimize energy consumption on pumping by maximizing the use of ground gravity, greening the WWTP sites and office building to save electricity on air condition etc.). For pollution control and risk management during its operation, the siting and land area of the WWTP with adequate buffer zone in compliance with applicable national standards has been confirmed. Depending on the results of impacts and risks assessment, WWTP design may include the gaseous (particularly the odour-generating gases such as H<sub>2</sub>S) collection and system and standby treatment tank capacity to reduce the level of impacts and risks in case of system failure. As part of the construction contracts, O&M Manuals for the operation of the WWTP will also include sludge treatment unit and/or procedures for the handling, temporary storage, transportation and final disposal of the material used for wastewater treatment sludge that are environmentally sound and safe to human health (both the workers and the potentially affected communities).

During operation phase, given the scale and capacity of the WWTP, the volumes of GHG emitted from the proposed WWTP is assessed as limited and would be less than the case of “without project” where wastewater is not collected, and GHG would be released from the stagnant water at many places within and surrounding residential areas. In short, as GHG emissions from this project will be small and dispersed, thus undertaking GHG gross estimation is not necessary.

With the drainage system, the main concerns would be during construction phase as there will be some dredging activities. Odour, visual impacts, soil and water pollution due to dredged materials and leakage water could be issues caused by dredging, temporary storage, handling, transportation and final disposal of the dredging materials. The ESMP includes a Dredging and Dredged Material Management Plan (DDMMP) to: (i) characterize the dredged materials qualitatively and quantitatively; (ii) identify and assess the potential impacts and risks associated with all stages of the dredging process; (iii) propose mitigation measures which may include dredging methods and design of the temporary and final disposal sites; and (iv) monitoring plan. The costs associated with the mitigation measures applicable to dredging process will be incorporated into the Project costs. Based on the DDMMP, after contract signing the contractors of relevant bid package will also prepare C-DDMMP detailing the mitigation measures and monitoring activities applicable to their package. The ESMP also considers opportunities for beneficial use of the dredged materials such as ground levelling or tree planting provided that the quality of materials is suitable for such purposes.

For the ring roads, with better road surface conditions and less traffic on the urban roads, vehicles can maintain more stable speed thus emissions from exhausted will be less than the case of travelling on the other roads if “without project”. With limited length of the roads to be constructed, the net GHG emission along these roads is anticipated to be small and dispersed. Meanwhile, there are also existing national regulations for vehicle emission control such as the “National Technical on the fourth level of gaseous pollutants emission for new assembled, manufactured and imported automobiles QCVN 86:2015/BGTVT issued by the Ministry of Transport.

The AF does not finance any civil works or other activity which use or produce chemical products, or development and emissions of hazardous and non-hazardous chemical pollutants in the solid, liquid, or gaseous phases, nuisance odors, noise, vibration, radiation, electromagnetic energy, and the creation of potential visual impacts.



### ESS4 Community Health and Safety

The aspects of community health and safety that need to be considered include waterway and roadway traffic safety in disturbed areas, community health issues and safety risks at the construction sites, hazardous substances related to the operation of the WWTP, and overall public security and safety, including GBV/SEA related to the influx of workers and security personnel. These risks and issues were assessed as part of the ESA process and mitigation measures developed and incorporated as part of ESMP for application during detail design, bidding, construction or operational phases. The engineering design will apply 100 years repeated waters to structural flood control such as a closed “ring” embankment with tidal sluiceways/valves to protect areas from high water on the edge of rivers and will use 10 years rainfall returns for urban drainage. The design of these flood control measures (which may also include retention ponds) would incorporate design features that minimize waterfowl, mosquitoes, and safety features (especially for children, disabled/aged people). Discussion would also be held with municipal government to set aside necessary resources for maintenance and inspection of the structural flood control measures. Awareness programs on preventing and protecting human health during infectious disease outbreaks, especially where project activities risk increasing exposure to communicable diseases, will also be conducted. Regarding traffic safety, the ESIA identifies, assess and monitor the risks related to traffic and traffic safety risks that would affect local communities and travelers. Mitigation and risk management measures will be incorporated into the technical design of roads and the intersections, and cost estimation. Measures to enhance traffic safety in relation to the vehicles used by the Project during construction and operation phases have also been proposed. Other measures to minimize the safety risks for traffic means, drivers and local residents were also proposed for the cases where road surface is occupied or disturbed by project activities. In relation to community health issues and safety risks, the ESIA considers the treatment process and the requirements regarding the buffer zones of the WWTP and the design of the works will be compliance with applicable national design and construction codes taking into account the potential impacts of climate change, and with reference to ESHS and GIIP in order to ensure safety for community and stake holders during the construction and operation of the WWTP. The ESIA also considers the incremental safety risks when the public is using the footpaths and the application of universal access in the design of the footpaths and along the new roads including those within the resettlement site. In terms community health and safety risks related plant operation, while the use of highly toxic substances in the WWTP operation is not likely, the ESIA identifies and assesses health risks of the pollutants emitted from and the chemicals used for wastewater treatment, and ESMP includes recommendations on the size of buffer zone . Also an Emergency Responsive Plan will be prepared as part of the WWTP’s operational manual.

Civil works may result in the presence of workers from other localities the project area. Depending on the scale of each subproject, a moderate number of workers (200-250 workers) will be required for construction sites. This has the potential to result in impacts to community health and safety. Gender-based violence (GBV), sexual exploitation and abuse (SEA), and the spread of sexually transmitted and communicable diseases, may occur especially among vulnerable populations in in the Low income areas. During preparation, the project assessed the ability of the client to respond to GBV risks, (iii) assess the risk of GBV for the project which was found to be low, (iv) established procedures to review and update risk assessments during project implementation, (v) identified and include appropriate mitigation measures for including in the project design and bidding documents (including worker codes of conduct). In addition, measures to manage the potential labor influx and its impacts have been included in the ESIA.



Furthermore, any private security to be retained by the PMU and Contractors will be unarmed, registered and trained (this requirement will be specified in the bidding documents).

The AF does not finance any civil works or other activity which may have impact on community health and safety.

**ESS5 Land Acquisition, Restrictions on Land Use and Involuntary Resettlement**

The proposed project will include a combination of structural and non-structural interventions to improve access to infrastructure and to reduce flood risk in the urban core area of Vinh Long city. Considering the scope of the infrastructure to be developed in the Component 1, 2, and 3, significant land acquisition may be required, leading to the loss of lands, relocation of households, permanent economic impacts, and restrictions to access to livelihood activities. There may also be land acquisition requirements associated with the disposal of sludge and construction materials leading to a permanent loss of crops, trees and land-affixed assets. Permanent acquisition of residential, garden, agricultural, water surface areas and the permanent disruption of business activities will be required. There is also a risk of temporary restrictions in access to residential and commercial establishments, which could affect people’s livelihoods, and temporary land acquisition is also possible.

The land acquisition requirements, household relocation, and impacts on livelihoods have the potential to be significant. The initial assessment indicates that there are around 1,800 households will be affected land acquisition, of which roughly 550 households may have to be relocated or resettled within their existing residential plots. Under component 1, it is estimated that impacts would include 200 HHs affected by land acquisition for the WWTP (including 30 HHs to be relocated), and up to 600 HHs affected by land acquisition for canal upgrading (280 HHs to be relocated). For component 2, it is estimated that up to 750 HHs will be affected land acquisition for road construction (215 HHs to be relocated), while under component 3, 12.5ha of agricultural land will be acquired from 120 HHs to construct a resettlement site. At this point it is not possible to estimate temporary economic impacts that may result from the relocation of businesses vendors affected during the construction phase of component 1.

The development of Resettlement Site (12.5ha) in Ward 8, under the Component 3, will be located close to affected areas and connected with the other urban areas, where current the land use is agricultural, and no residential structures are currently located. Based on initial assessment, the RS will have a capacity of over 550 plots (100-120sqm per plot). Considering that relocated HHs can choose to self-relocate, it is expected that the proposed resettlement site will cover the needs of HHs wanting to be relocated in a serviced resettlement site. Additional acquisition of land along the proposed Ring Roads for future development, under city financed domestic projects, may also take place in the coming years. Even though these parallel projects are not considered associated facilities, experience from other projects show that there are challenges and risks if two different resettlement policies (World Bank and Government) are applied for the Banks’s project and for City’s projects (primarily due to residents not distinguishing between the two sources of financing). Some sections of canals, where embankments will be upgraded under component 1, are densely populated. Households along these canals have established property rights (with land use certificates), permanent houses and generally stable livelihoods.

Efforts will be made to avoid or minimize the potential land acquisition or involuntary resettlement during the subproject identification through the use of environmental and social screening tools in conjunction with early stakeholder engagement activities. During the preparation of the detailed designs and feasibility study, if legacy



issues are identified, due diligence review will also be required. At this stage, only rough estimates are available regarding the project footprint and the scale/scope of impacts, therefore, a Resettlement Policy Framework (RPF) has been prepared. This is based on The RPF which prepared under the SUUP (Vinh Long is one of the participating cities), which was updated according to the project features, and the requirements of the ESF, and has been ready prior to project appraisal. The RPF includes provisions to provide compensation for the entire cost, relevant to customary requirements for the relocations of graves. Once the detailed designs are available, a Resettlement Plan (RP) will be developed. The RP will need to take into account the socioeconomic vulnerability of the affected population to avoid the risk of impoverishment, particularly among the people who do not hold property titles to the land they occupy, ensuring that the mitigation measures are adequate to restore their living conditions, including the analysis of options beyond cash compensation. Given there is a risk of restrictions in access to residential establishments and business activities, which could affect people's livelihoods, the RP will include a livelihood restoration plan.

The AF will not involve any physical infrastructure improvements or works which could have or lead to adverse social impacts. The AF will also not involve any kind of land acquisition or resettlement or people's livelihoods. In addition, technical assistance related activities foreseen under the AF will not lead to any downstream activities (e.g., through the design of major infrastructure investments) that may require land acquisition or resettlement.

#### ESS6 Biodiversity Conservation and Sustainable Management of Living Natural Resources

The environmental baseline of the project areas is characterized by a low sensitivity with varying degrees of modified habitats, ranging from complete surface sealing and absence of vegetation to highly modified patches of intra-urban habitats. The existing urban green space in Vinh Long city mainly includes small parks and trees planted along streets. There are acacia and eucalyptus plantations near the residential centre and narrow natural vegetation patches left, having some recreational rather than biological values. Among the limited native tree species planted in Vinh Long city (Dầu rái (Dipterocarpus), sao đen (Hopea odorata), thị (Diospyros mollis), Viết (Minusops elengi), Bằng Lăng (Lagerstroemia speciosa), the Sao Den is in IUCN's protection list. In addition, seven introduced invasive floral species, typically grasses, water-hyacinth and mimosa, have been found in Vinh Long city. The number of fauna species observed in Vinh Long is limited, mostly spiral (Callosciurus) and flying-foxes. There are also 18 bird species, 10 reptiles and 3 amphibians. At the provincial level, 117 fish species have been identified. The potential impacts on fish, aquatic and land-based habitats were assessed to be limited as dredging would take place in dry season at inner city canals. The site survey during the ESA process found that some sections of the proposed road alignment would run through existing agricultural/ vacant land in the city. Canal improvement may disturb existing embankments where there may be some patches of vegetation cover. The project's excavation and dredging works may affect existing green space, vegetation cover and trees, birds and aquatic lives. Given the location and environmental setting of the project, minor impact on biodiversity is anticipated. The ESIA includes the measures to avoid, mitigate, minimize or compensate for the disturbance or negative biological impacts through the siting of the works, engineering design or construction practices.

A cumulative impact assessment has been conducted as part of the ESIA to inform of the selection the siting and form of structural and non-structural flood control measures. That assessment took into account the potential hydrological changes, nutrient loading, pollution and incidental take, as well as project climate change impacts (ESS6, paragraph 8). The potential cumulative impacts on the identified valued ecosystem components have been assessed as small.



The AF neither finances nor supports any civil works activities or policies affecting biodiversity, ecosystems and their services, or management of living natural resources.

**ESS7 Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities**

The social assessment indicates that the project investments will take place within Vinh Long city where the majority Kinh people are dominant (99.6%), the remainders are the Chinese (0.3%) and Khmer (0.1%). Because the Khmer population are made up of individual households, residing in mixed neighborhoods with the Kinh majority, and have no collective attachment to the project area, this standard is not relevant.

The standard is not applicable for the AF.

**ESS8 Cultural Heritage**

There are known existing temples, pagodas and other cultural heritage structures in Vinh Long city, particularly the nationally-recognized sites namely the Long Thành, Tân Hoa, Văn Thánh, Thất Phủ, Công Thần temples. Siting of the project’s proposed works should normally avoid these existing physical cultural structures. Therefore, it is not expected the proposed project will disrupt, damage or require relocation of any sites with cultural values. The ESIA has screened to identify the cultural resources (including graves and cultural heritage) available within the area of influence of the Project, assessed the extent to which the project interventions may cause impacts to these known existing structures, and detailed adequate mitigation measures have been developed and included in ESIA for implementation. The ESIA has also assessed whether there are any intangible aspects of cultural heritage that may be affected or disrupted by the project, and confirmed that no impact on intangible cultural heritage would be expected. As the project is expected to involve substantial volume of earth works at the WWTP, along the pipeline, new roads and canal, a chance finds procedure has been included as part of the ESMP.

The AF will not involve any physical infrastructure improvements or works of any kind or any analytical, advisory or other activities which could have or lead to direct or indirect adverse impacts on tangible and intangible cultural heritage.

**ESS9 Financial Intermediaries**

At this stage, no financial intermediaries are expected to be involved in the project. Hence, the standard is not applicable for the AF.

**B.3 Other Relevant Project Risks**

No other relevant project risks envisaged.

**C. Legal Operational Policies that Apply**

**OP 7.50 Projects on International Waterways**

Yes

Public Disclosure



**OP 7.60 Projects in Disputed Areas**

No

**B.3. Reliance on Borrower’s policy, legal and institutional framework, relevant to the Project risks and impacts**

**Is this project being prepared for use of Borrower Framework?**

No

**Areas where “Use of Borrower Framework” is being considered:**

Although Vietnam has an advanced E&S Framework, there are gaps between the environmental and social assessment regulation and practice, especially in description of the environment, level of impact analysis and mitigation measures, and public consultation and disclosure of information. In addition, there is no experience of the implementing agencies in implementing and applying ESF and its associated environmental and social standards. Therefore, there are no plans to use the Borrower’s E&S Framework within the parent project and the AF.

**IV. CONTACT POINTS**

**World Bank**

|               |                            |        |                             |
|---------------|----------------------------|--------|-----------------------------|
| Contact:      | Hoa Thi Hoang              | Title: | Sr Urban Spec.              |
| Telephone No: | 5777+8248 / 84-234-9378248 | Email: | hhoang@worldbank.org        |
| Contact:      | Van Anh Thi Tran           | Title: | Senior Transport Specialist |
| Telephone No: | 5777+7359 / 84-243-9367359 | Email: | vtran@worldbank.org         |

**Borrower/Client/Recipient**

Borrower: Socialist Republic of Vietnam

**Implementing Agency(ies)**

Implementing Agency: ODA PMU of Vinh Long Province

**V. FOR MORE INFORMATION CONTACT**

Public Disclosure



**The World Bank**

Vinh Long City Urban Development and Enhanced Climate Resilience Project Additional Financing (P177314)

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The World Bank  
1818 H Street, NW  
Washington, D.C. 20433  
Telephone: (202) 473-1000  
Web: <http://www.worldbank.org/projects>

Public Disclosure



**VI. APPROVAL**





Task Team Leader(s):

Hoa Thi Hoang, Van Anh Thi Tran

Practice Manager (ENR/Social)

Susan S. Shen Cleared on 18-Jan-2022 at 16:18:6 GMT-05:00