Vinh City Priority Infrastructure and Urban Resilience Development Project (P174157)

# Project Information Document (PID)

Concept Stage | Date Prepared/Updated: 24-Jun-2020 | Report No: PIDC29769

Jun 02, 2020 Page 1 of 8

# The World Bank

# **BASIC INFORMATION**

## A. Basic Project Data

Country Vietnam	Project ID P174157	Parent Project ID (if any)	Project Name Vinh City Priority Infrastructure and Urban Resilience Development Project (P174157)
Region EAST ASIA AND PACIFIC	Estimated Appraisal Date Jan 18, 2021	Estimated Board Date May 31, 2021	Practice Area (Lead) Urban, Resilience and Land
Financing Instrument Investment Project Financing	Borrower(s) The Socialist Republic of Vietnam	Implementing Agency People's Committee of Nghe An Province	

# **Proposed Development Objective(s)**

The Project Development Objective (PDO) is to reduce flood risk in the core urban area and strengthen urban resilience management capacity in Vinh City.

# **PROJECT FINANCING DATA (US\$, Millions)**

## **SUMMARY**

Total Project Cost	175.00
Total Financing	175.00
of which IBRD/IDA	135.00
Financing Gap	0.00

#### **DETAILS**

# **World Bank Group Financing**

International Bank for Reconstruction and Development (IBRD)

Non-World Bank Group Financing		
Counterpart Funding	40.00	
Borrower/Recipient	40.00	

135.00

Jun 02, 2020 Page 2 of 8

Environmental and Social Risk Classification Substantial

Concept Review Decision

Track II-The review did authorize the preparation to continue

Other Decision (as needed)

#### **B.** Introduction and Context

**Country Context** 

- 1. Since the introduction of comprehensive economic reforms in 1986, known as D0i D0i D0i D0i D0i Moi, Vietnam has been a major development success story. Gross domestic product (GDP) growth per capita has averaged 5.5% annually since 1990, leading to a three-and-a-half-fold increase in average income. Growth has been impressively stable and inclusive, as evidenced by a relatively small increase in the Gini coefficient from approximately 33 in 1993 to approximately 35 in 2014. External trade has been the major driver of growth, much of it powered by strong foreign direct investment. Rapid development has resulted in structural transformation, with agriculture falling from 40% of GDP in the late 1980s to less than 20% in recent years, with a related rise in services and industry and accelerating urbanization.
- 2. This strong economic growth has been inclusive, yielding shared prosperity and strong gains in poverty reduction. The \$1.90-a-day poverty rate fell from 50% in the early 1990s to 3% today. Using the General Statistics Office –, the World Bank standard, poverty incidence fell from about 58% to 13.5% over the same period. Access to basic infrastructure has also improved substantially. Electricity is now available to almost all households, up from less than half in 1993. Access to clean drinking water and modern sanitation in urban areas has risen from less than 20% of all households in 1999 to more than 90% and 78% respectively in 2015<sup>2</sup>.
- 3. Vietnam is highly vulnerable to weather-related hazards such as typhoons, floods, and drought, which are exacerbated by the impacts of climate change. The Bank's recently released Lifelines report estimates put Vietnam's annual disaster damages and losses at around \$11 billion, which is 4.5% of GDP, making Vietnam's relative disaster losses to GDP amongst the highest in the world. Disaster risk is especially high along the 3,300-km coastline where there is high exposure to flooding, storm surge and typhoons. Poorly controlled development is translating into growing losses and continued growth in disaster losses is expected, given that new development is uniformed by risk and relatively uncoordinated across sectors and levels of government.
- 4. Inadequate infrastructure increases the vulnerability of Vietnam's rapidly urbanizing cities to disasters, thereby limiting economic growth potential. Uneven access to basic infrastructure, including drainage systems, wastewater collection and treatment, and road networks,<sup>3</sup> compounds the vulnerability of people and assets that are exposed to hydrometeorological hazards. Analysis shows that flood risks in urban and economic growth areas are nearly twice as high as in low-growth areas, and half of all industrial zones are directly exposed to the threat of intensive flooding.<sup>4</sup> Potential losses are especially large in coastal areas that offer many economic opportunities and attract a growing number of people

Jun 02, 2020 Page 3 of 8

<sup>&</sup>lt;sup>1</sup> Vietnam 2035 Report (World Bank, 2016).

<sup>&</sup>lt;sup>2</sup> Joint Monitoring Program Report (WHO/UNICEF, 2015).

<sup>&</sup>lt;sup>3</sup> Shifting the GEAR: Putting Vietnam's Urbanization onto an Efficient, Inclusive, and Resilient Pathway (Draft) (World Bank, 2019).

<sup>&</sup>lt;sup>4</sup> Resilient Shores: Safeguarding Vietnam's Coastal Development in the Face of Natural Hazards (Draft) (World Bank, 2020).

and services, but are exposed to disasters and sea level rise.

5. Vietnam has been negatively affected by the health and economic crises caused by the COVID-19 pandemic. The health impacts of the pandemic have been limited as publicly reported cases and fatalities have been limited due to the measures taken to close borders and social distancing to halt the spread of the virus. While disease spread has been limited, and Vietnam is internationally recognized as a success case in controlling COVID-19, these restrictive measures have had a negative impact on the economy. The economic slowdown has translated to a reported GDP growth rate of only 3.8% in the first quarter of 2020, or half of the growth rate of the same period in 2019.

Sectoral and Institutional Context

- 6. **Vietnam's rapid economic transformation has led to extensive urbanization; however, urban growth has been suboptimal and uncoordinated.** Vietnam has a low level of urbanization (37.5% of the population in 2017) compared to most countries in the East Asia region, but its urban population has grown steadily at 3.4% a year since the late 1980s; from fewer than 13 million urban residents to more than 30 million today. Urbanization has accelerated in recent years, with urban areas now contributing more than half of the country's GDP, while half the country's population is expected to live in urban areas by 2035.<sup>5</sup> Notwithstanding the impressive social and economic outcomes brought about by urbanization, there are signs that Vietnam's current urbanization model is losing momentum. A notable characteristic of urban development in Vietnam has been the low and stagnant levels of urban density, with industrial zones developed ahead of demand and a proliferation of small, fragmented, and poorly connected urban centers.
- 7. **Vinh, the provincial capital of Nghe An Province, has been identified by the central government as an important growth center.** The city is located on the main north-south highway and railway connecting northern and southern provinces of Vietnam, and serves as the political, economic, and cultural center of the North-East region. Vinh is a Class 1 city, growing at 8.5% per year since 2016, and is highly industrialized with agriculture accounting for only 1.3% of the local economy. The number of visitors to the city has been increasing by over 4% per year, and annual tourism revenue has grown at 15-16% since 2015. In addition, Vinh University is one of the three biggest universities<sup>6</sup> of the central region. The Master Plan of Vinh City to 2030 and vision to 2050, envisages continued rapid growth, from 520,000 inhabitants today to one million at the end of the Master Plan. As the city continues to grow and attract more population and business and create economic opportunities, it is expected to play a more critical role in the social economic development of the North central region.
- 8. Despite ambitious development plans, Vinh is struggling to keep up with rising demand for basic urban infrastructure, both in the established urban centers and in urban expansion areas. To varying degrees, the sewage and sanitation systems are inadequate and untreated domestic wastewater is often discharged directly into rivers, causing water pollution and serious health risks. Solid waste management deficiencies and uncontrolled dumping also add to environmental pollution, clogged drains, and generally poor public health conditions. Roads, particularly in the older parts of the city, are narrow, seriously degraded and inadequate in extent, restricting efficient transport operations as the city population and household incomes increase. To address this shortcoming, integrated infrastructure development is Vinh city's top priority, evidenced in both central government's Directive for Vinh city Development No. 2468/QD-TTg and Politburo's Resolution No. 26 NQ/TW for Nghe An province.
- 9. Given its geographic location, Vinh faces natural hazards from fluvial flooding due to rainfall runoff from the inland hills, pluvial flooding in the city itself, coastal flooding and winds due to typhoons, all of which are increasing in frequency and intensity due to climate change. Over the past decade, the city has experienced a greater number of flood

Jun 02, 2020 Page 4 of 8

<sup>&</sup>lt;sup>5</sup> Vietnam 2035 Report (World Bank 2016)

<sup>&</sup>lt;sup>6</sup> Two are universities are in Danang and Hue

events that are having an increasingly large economic impact, in addition to recent storm and typhoon events. Most recently, the October 2019 floods damaged over 5,000 households and can be attributable to a strong rainfall event whose impact was compounded by the increasing flood protection infrastructure gap being driven by rapid urbanization.

- 10. The drainage system of Vinh comprises four catchments basins connected to Rao Dung, Ke Gai, Vinh and Lam rivers. In these basins, a combined sewer system of tertiary and secondary drains collects storm water and wastewater. Part of the collected wastewater is transferred to the Hung Hoa Wastewater Treatment Plant commissioned in 2015, but there is also direct discharge through primary drains of uncollected wastewater into the Vinh River. The tertiary and secondary sewers deliver storm water towards primary drains which discharge, under gravity or through pump stations, the water directly into these rivers. These rivers are connected to the sea through which the tide, but also storm surge during typhoon events, protrude in the river system around the city. Also, these rivers drain upstream runoff water from the surrounding hills towards the sea during pluvial events. Elevated water levels in the river system during these circumstances result in limited drainage capacity of the urban drainage network. A special feature of the drainage system is the Hung Hoa 1 retention lake on the eastern side of the city which temporarily stores water before draining into the river and was constructed as part the Bank financed Medium Cities Development Program (MCDP).
- 11. Uncoordinated and insufficient infrastructure development has resulted in increased flood risk for Vinh City and its inhabitants. Severe flooding in the city occurs during extreme rainfall events resulting in rising water levels in the rivers through the city, posing a risk to the adjacent city neighborhoods. Also, the urban drainage system itself fails to cope with the local rainfall events resulting in severe ponding at various locations throughout the city due to a myriad of reasons, including: i) increased runoff due to urbanization; ii) lack of discharge capacity in the secondary drainage system, iii) lack of maintenance dredging in the primary and secondary drainage system; iv) obstruction of flow through the Vinh, Ke Gai and Rao Dung river system due to sedimentation, resulting in higher flood levels and less drainage capacity of the urban drainage system; v) urbanization of historical retention areas (e.g. Hung Hoa Commune) resulting in less storage capacity during extreme events. In addition to these factors, the uncollected discharge of wastewater into the Vinh River results in pollution and subsequent adverse impacts on attractiveness of the public space and health of the city inhabitants. Further urbanization and climate change will exacerbate this situation.
- 12. The World Bank-financed MCDP, completed in 2018 helped, in part, to increase the institutional capacity of the city to plan and execute integrated and resilient urban development. The longstanding engagement with Vinh city has highlighted the further need to coordinate and scale up investments across sectors in an integrated manner to reduce flood risk as urbanization accelerates. Weaknesses and needs for further support to the city have been identified, including the need to ensure that investments are risk informed and that the city has the necessary tools in place to better understand and manage resilient urban growth.
- 13. The relatively weak institutions responsible for integrated and resilient urban planning and development is a particularly pressing issue. Inefficiency in urban planning and management, as well as improper land use enforcement, are recognized as serious areas of weakness in the self-evaluation of Vinh city People's Committee in its report for implementation of Official Notice 55-TB/TW of the Politburo. There are no clear frameworks or effective mechanisms for spatial regulation in the plans, resulting in weak protection of open spaces, agricultural land, and other natural resources, and there is a lack of consideration of the impact of disaster risks and climate change. Further, GOV officials in Vinh City lack the tools and systems necessary to manage integrated urban development and lack the authority to enforce development plans. Insufficient authority and tools to plan and execute integrated, dense, and resilient urban development are compounding the many challenges in the city. The outcome is low-density sprawl that is increasing vulnerabilities and reducing the resources of the city due to the high cost of low-density service provision. The city also lacks the technical and financial capacity to maintain urban infrastructure development that keep paces with urbanization.
- 14. Weak and uncoordinated urban planning, lack of infrastructure provision, and environmental degradation

Jun 02, 2020 Page 5 of 8

compound the already high climate and disaster risks in Vinh City. The city is experiencing rapid urbanization that is outpacing the provision of infrastructure, which is a major driver of the growing flood risk. Increasing flood losses are primarily driven by three factors. First, rapid land conversion is reducing natural absorption capacity of the city and surrounding areas. Second, housing and industrial development is taking place in absence of sufficient new flood protection infrastructure to ensure adequate protection and drainage. Third, rapid economic growth, industrial development, and a lack of basic services has caused the natural environment of the city to rapidly deteriorate, which is compounding vulnerabilities to hydrometeorological hazards.

Relationship to CPF

This operation is fully consistent with the World Bank Country Partnership Framework (CPF) for Vietnam 2018-2022. It will directly contribute to the achievement of Objective 5 of the CPF to "improve planning, management, and delivery of infrastructure and land in cities" under the first focus area to "enable inclusive growth and private sector participation", through investment in drainage and wastewater, including a household connection program. Second, the project will support the achievement of Objective 10 of the CPF to "increase climate resilience and strengthen disaster risk management" under the third focus area to "enhance environmental sustainability and resilience" by investing in integrated flood protection measures, along with a spatial planning platform, a flood model, and an early warning system. The proposed project will contribute to the Bank's Twin Goals of eliminating extreme poverty and boosting shared prosperity by supporting the city in increasing access to improved basic services for the bottom 40% of income groups, removing infrastructure constraints, and improving connectivity and access to jobs for both male and female members of local communities.

#### C. Proposed Development Objective(s)

The Project Development Objective (PDO) is to reduce flood risk in the core urban area and strengthen urban resilience management capacity in Vinh City.

Key Results (From PCN)

More than half of city population should directly benefit from the proposed project. Key results are based on the core sector indicators, disaggregated by gender, and possibly include:

- A. increased urban area that are protected from inundation (100-year return period for fluvial flooding and 10-year return period for rainfall)
- B. Households with access to improved sanitation services
- C. Improved institutional capacity to manage urban development and flood risk

#### **D. Concept Description**

Legal Operational Policies	Triggered?	
Projects on International Waterways OP 7.50	Yes	
Projects in Disputed Areas OP 7.60	No	
Summary of Screening of Environmental and Social Risks and Impacts		

Jun 02, 2020 Page 6 of 8

The main substantial adverse environmental risks and impacts would be expected to stem from the upgrading of Vinh River, construction of the urban roads, construction of the regulation lake and pumping station including: i) water and environmental pollution due to disposal of a substantial amount of dredged materials; ii) safety risk due to unexploded ordnances (UXO) left from the war; iii) community health and safety from the vehicles and equipment that transport dredged materials and road construction spoils from the project sites; iv) health and safety of workers and communities along the road corridors where works will be carried out but also along transport routes of construction supplies, materials and equipment; v) exposure of population along the ROW and transport routes to noise, dust, vibrations, air pollution and traffic-related risks; (vi) siltation and sedimentation of waterways close to the construction works; vii) river bank erosion of Lam River due to operation of the flood water pumping station that will pump the water directly to the river; and viii) adverse impact on waterway traffic.

The environmental risks and impacts related to construction and operation of the secondary and tertiary storm water drainage system, wastewater collection system, and strengthening the WWTP (i.e., installation of automatic water quality monitoring of input and effluent wastewater and construction of a retention pond for emergency wastewater discharge) would mainly include: i) community and worker health and safety; ii) traffic safety and business disturbance; iii) air, soil, and water pollution due to construction activities and waste generation; and iv) damages to public infrastructure and household assets. These potential adverse impacts are expected to be medium in magnitude, site-specific, predictable and/or reversible, can be readily and reliably managed through the environmental management hierarchy and mitigation measures.

Key social risks that need to be addressed include (i) risks related to land acquisition and resettlement for the Components 1 and 2, (ii) risks related to labor and working conditions, as well as GBV and communicable diseases associated with labor influx from the other localities, and (iii) risks associated with stakeholder engagement and grievance redress across all project components. It is expected that there will be limited adverse impacts on vulnerable populations, aside from those who may have to relocate under the road extension and Vinh river embankment upgrades or those who may have difficulty accessing the house connection program for drainage and wastewater collection services. There are no members of ethnic minority groups, that have a collective attachment to the project affected area, who are directly affected from the project. Key social risk instruments that will need to be prepared include a social assessment (to include as part of the ESIA/ESMP for all project components), a resettlement plan, as well as a stakeholder engagement plan and labor management procedures (for all components). The resettlement plan, stakeholder engagement plan, and labor management procedures will be prepared during project preparation.

# **CONTACT POINT**

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### **Borrower/Client/Recipient**

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Jun 02, 2020 Page 7 of 8

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# **Implementing Agencies**

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# APPROVAL

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# **Approved By**

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Jun 02, 2020 Page 8 of 8