Date: 28 September 2023

Environmental and Social Consideration in Detailed Planning Survey (Draft)
(Technical Cooperation for Development Planning)

1 Full Title of the Project

Project for Flood Damage Restoration and Formulation of a Flood Prevention and Control Master Plan in The Central Region

2 Type of the study

Master Plan

3 Categorization and the Rationale

The Project is categorized as B as the project is not likely to have significant adverse impact on the environment under the JICA Guidelines for Environmental and Social Considerations (April 2010) (hereinafter referred to as "the Guideline"),in terms of its sectors, characteristics and areas. The necessary procedures are taken in accordance with the Guideline.

4 Agency or Institution Responsible for the Implementation of the Project

The Implementing Agency of the Project is Viet Nam Disaster and Dyke Management Authority (hereinafter referred to as "VDDMA"), MARD, and Provincial Governments.

5 Outline of the Project

5.1 Background (Draft Based on the Request form submitted by VNDMA)

The project will contribute to the goals stated in the implementation report of "Vietnam: National Strategy for Natural Disaster Prevention, Control and Mitigation until 2020". Mentioned in the socio-economic development plan for the period 2016-2020, one of the main objectives is to "Actively cope with climate change, prevent and cope with natural disasters, enhance the management of natural resources and environment protection". In addition, the economic development plan "Vietnam in 2035 – Towards Prosperity, Innovation, Equity and Democracy" mentions the importance of strengthening resilience in economic and social policy planning, investment in infrastructure to reduce risks from climate change. This is one of six key changes in order to achieve the economic development goals by 2035. The project will contribute to the above goals by strengthening the multi-hazard warning system in the target provinces, strengthening the local disaster risks prevention capacity, improving sectoral capacity for risks prevention and emergency response and enhance risks management capacity for the Central region, which has been recently heavily affected by natural disasters. This is also an opportunity to disseminate the

project's achievements to other localities in Vietnam.

5.2 Objective of the Project (Draft)

(1) Expected Goals which will be attained after implementing the Project

1) Goal of the Project

IFMP is formulated in Vu Gia–Thu Bon river basin.

2) Goal which will be attained by implementing IFMP

Flood risk in Vu Gia–Thu Bon river basin is reduced through the pre-disaster investment by the Vietnam government.

(2) Output

Output1: Flood risk is assessed in Vu Gia–Thu Bon river basin;

Output2: IFMP is formulated to contribute to reduce flood risk in Vu Gia–Thu Bon river basin; and

Output3: The implementing structure is established to implement flood risk reduction countermeasures based on IFMP.

5.3 Location of the Project(Draft)

The project site: Vu Gia- Thu Bon river basin.

5.4 Duration of the Project

The duration of the Project is three (3) years from first arrival of the Japanese expert.

5.5 Proposed Activities (Draft)

The Project will be carried out in the following three (3) stages step-by-step together with technology transfer during the entire period of the Project:

Stage-1: Basic study, providing and installation of necessary equipment (hydrological observation equipment and disaster monitoring equipment) in Vu Gia–Thu Bon river basin

1-1 Identification of gaps in existing related policies, strategies, plans, related documents and current philosophy on flood control

1-2 Analysis of basic data and information, including climate change impact assessment

1-3 Identification gaps in existing IFMP and database for hydrological model

1-4 Planning, providing and installation of necessary equipment (hydrological observation equipment and disaster monitoring equipment)

1-5 Basic hydrological analysis for formulation of runoff and inundation models

1-6 Preliminary discussion on adaptation strategies against flood risk in terms of urban planning such as zoning of land use, development plan of critical infrastructure and environmental and social consideration

1-7 Conduct of baseline surveys on environmental and social considerations

Stage-2: Risk Assessment and Formulation of IFMP in Vu Gia–Thu Bon river basin

2-1 Consensus-making for the orientation and necessary contents of IFMP with stakeholders

2-2 Setting of planning conditions (target safety level (flood return period), design rainfall and tidal condition, etc.) and a target year for IFMP

2-3 Analysis of flood risk for Vu Gia–Thu Bon river basin based on the outputs of activities 1-5

2-4 Formulation of IFMP, including consideration of a combination of measures with risk assessment based upon planning conditions and pre-feasibility study for prioritized structural measures.

2-5 Implementation of Initial Environmental Examination (IEE) level study, which includes analysis of alternatives, prediction and assessment of environmental and social impacts, and development of mitigation measures and monitoring plans, based on available information such as existing data and brief field surveys

2-6 Improvement of understanding and knowledge to enhance community's disaster preparedness.

Stage-3: Building cooperation mechanism between related organizations for effective implementation of flood control countermeasures

3-1 Identification and analysis of the issues regarding existing implementing structure and legal framework for efficient implementations of flood risk reduction measures

3-2 Holding stakeholder meetings to introduce and discuss tasks of relevant stakeholders in IFMP

3-3 Building cooperation mechanism between related organizations for effective implementation of flood control countermeasures, enabling well-balanced flood control between upstream and downstream in the Vu Gia–Thu Bon river basin

3-4 Recommendation of a implementing structure for flood risk reduction and formulation of the IFMP manual that enables effective flood control over multiple provinces based on IFMP in Vu Gia–Thu Bon river basin.

Entire Period:

3-1 Support for public consultation(s) organized by Government of Vietnam

3-2 On the-Job Training

3-3 Seminar(s) and Workshop(s)

3-4 Counterpart trainings in Japan

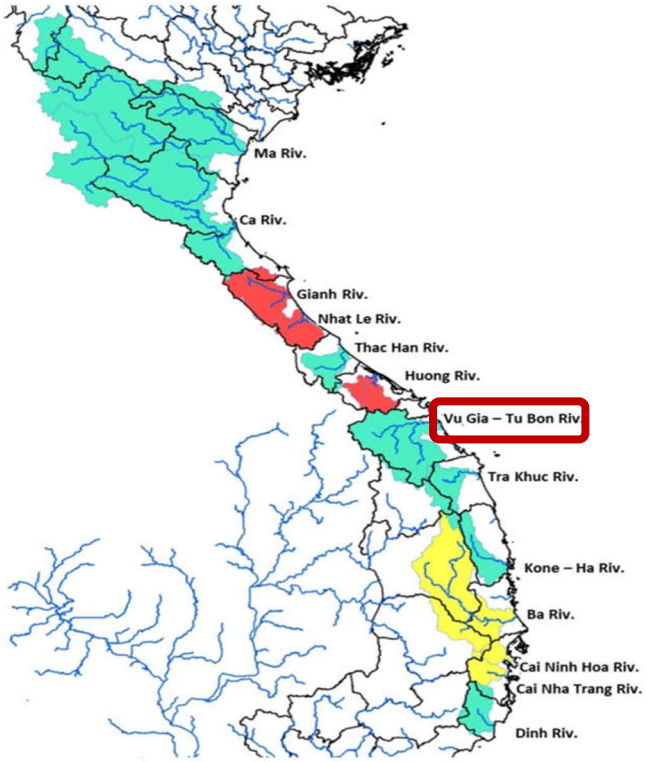
6 Description of the Project Site

6.1 Location

The project site is Vu Gia- Thu Bon (VGTB) river basin as shown in the following figure.

Source: JICA Team

Figure 1. Project Target Area



6.2 Socioeconomic Condition

6.2.1 Regional Development Plan

Vietnam has an elongated shape, having a distance of more than 1,600 km from north to south. "Strengthening development of linkages between regions, economic zones and urban development are the one of the key tasks," is stated in the Socio-Economic Development Plan (SEDP) 2021–2025 of Vietnam. The Government of Vietnam focuses on the formulation and implementation of development plans for more integrated, trans-provincial regions by dividing them into six socioeconomic regions.

The Central Region includes 14 provinces from Thanh Hoa in the north to Binh Thuan, with a total length of over 1,000 km. Vietnam has also designated four focal economic zones (FEZ), namely North FEZ

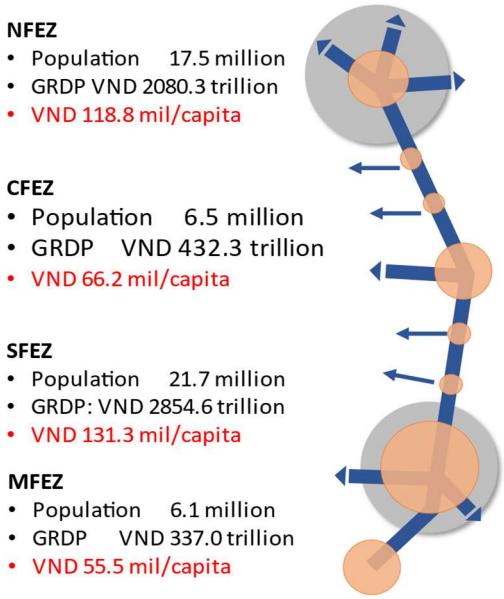


Figure 2 Population, GRDP, and GRDP per capita in the four FEZs of Viet Nam (2020)

(NFEZ), which includes Hanoi and five surrounding provinces; the Central FEZ (CFEZ), Danang, and four surrounding provinces; the South FEZ (SFEZ), Ho Chi Minh City, and seven surrounding provinces; and the Mekong FEZ, Can Tho, and three surrounding provinces. The FEZ has been positioned as a regional growth hub and has supported economic growth through focused infrastructure development. CFEZ, the key economic center of the Central Region, includes the watersheds covered by the Project, namely Da Nang and Quang Nam. CFEZ has a considerably smaller population and economic scale than the NFEZ and the SFEZ, with a difference in GRDP per capita of only about half of that of the two regions, as shown in Figure 2. These factors are due to a lack of infrastructure (weak linkages with global markets and domestic growth centers) and the level of development of the private sector, but also due to the region's vulnerability to natural disasters, which are more frequent than in other regions. On the other hand, the region has rich cultural and natural resources, including World Heritage Sites such as Hoi An and My Son Sanctuary, and beautiful coastlines and mountains, a strategic location at the eastern end of the East-West corridor, and competitive labor and service costs. A practical mechanism to integrate a socio-economic development plan and flood management plan need to be established to boost industrial development. Combating and limiting the impacts of natural disasters, and adapting to climate change, as stated in the Socio-Economic Development Plan during the 2021–2025, are crucial for the balanced growth in the social and economic aspects of the Central Region.

6.2.2 Profiles of the Target River Basin

Table 1 provides an overview of the population, GRDP, and other data of the provinces along the respective river basin covered by the Project. Apart from Danang City, these provinces have limited urban areas with generally low density.

Table 2 contains the summarized profiles of the target river basins. The share of manufacturing in the economy, mainly in the service and agricultural sectors (Table 2), is relatively small. However, owing to the economic growth in Vietnam, the region has become more urbanized and gradually attracting service industries and industrial parks, strengthening the economy of the CFEZ.

Table 1 Basic Information of the Provinces along the River Basins (2020)

River basin	Province	Population (000)	GRDP (current price) (VND bil.)	GRDP per capita (VND mil.)	Area (km^2)	Density (Person/ km^2)
VGTB	Danang	1,170	103,225	88.3	1,284.9	910
	Quang Nam	1,505	94,668	62.9	10,574.7	142
Reference	Hanoi	8,247	1,020,000	123.7	3,358.6	2,455
	Ho Chi Minh	9,225	1,371,716	148.7	2061.41	4,475
	Country	96,583	6,283,100	64.5	331,236	295

Source: Statistical Yearbook, General Statistical Office (GSO)

Table 2 Profile of the Target River Basins

	Vu Gia-Thu Bon
Area	5,180 km^2
Population	Approx.1.789 Mil.
Major Cities	Da Nang City (pop. approx. 1.17 Mil.) and the World Heritage city of Hoi An (pop. approx.: 100,000) in Quang Nam Province. The World Heritage site of My Son Sanctuary is also located upstream.
Structure of economy (2010)	・Industry: 37 %, ・Agriculture: 25% ・Services: 38 %
Main Hydropower reservoirs	A Vuong, Song Tranh 2, Dak Mi4, Song Bung 4
Land use (2010)	・Forest cover: 49% ・Agricultural cover: 12% ・Resident cover 3% ・Specific use 3% ・Other use 33%
Cultural heritage	World heritage sites such as Hoi An Ancient Town and My Son Sanctuary are located in the target river basins (downstream)

Source: WB (2020): Emergency natural disasters recovery in some central provinces - *Component 2: Enhancing natural disaster prevention capacity,* WB（2012～）*Viet Nam Managing Natural Hazards Project (VN-Haz/WB5)*, WB (2017) *Emergency Natural Disaster Reconstruction Project*、Land Use and Climate Change Interactions in Central Vietnam （LUCCi）2017 *Integrated River Basin Management in the Vu Gia Thu Bon Basin*

6.2.3 Ethnic Minorities

There are 54 ethnic groups in Vietnam. Given that the ethnic minorities live mainly in rural and remote areas, impacts on their livelihood upstream of the rivers need to be assessed. Although no adverse impacts are anticipated on the livelihoods of ethnic minorities under the Project, the ethnic minority peoples were still included in the consultation during the Project preparation and will be further consulted during project implementation.

6.2.4 Gender

Vietnam promotes gender equality in legislation and policy and supports the representation of women in politics and public administration. The National Strategy for Gender Equality (2021–2030) Resolution No. 28/NQ-CP has six objectives and individual targets in the areas of politics, economy and employment, prevention of domestic violence, healthcare, education, and training and information. The role of the Women's Union, a mass organization in Vietnam (traditionally an integral part of the socialist political system, representing interests and reflecting them in legislations and policies) for disaster prevention and post-disaster reconstruction, was evident. It is, therefore, necessary to ensure their involvement during planning and promote women's understanding of disaster risk management which could lead to improved livelihoods and sustainable resource use.

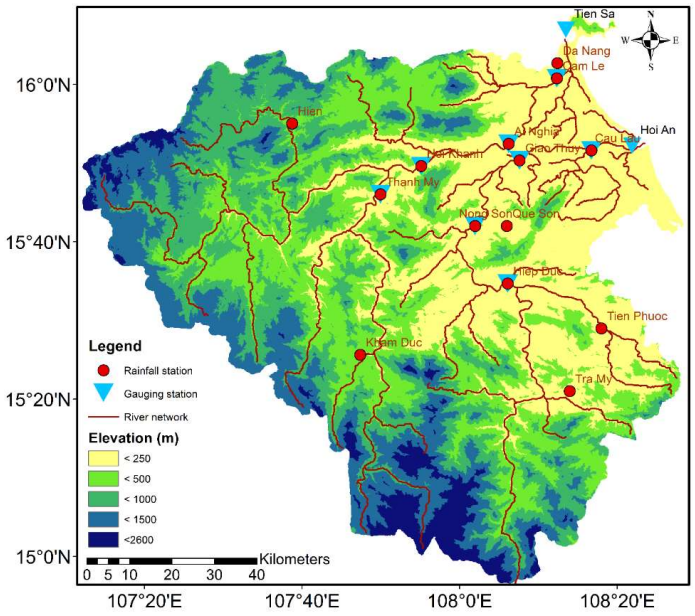
6.3 Natural condition of Vu Gia-Thu Bon (VGTB) River

Topography: The VGTB river basin is on the eastern side of the Truong Son Mountain Range. The Thu Bon (205 km) and the Vu Gia (145 km) are the two major rivers that receive water from the 19 first-order streams. Khang, Ngon Thu Bon, and Ly Ly are among the major first-order streams of the Thu Bon, while Giang, Bung, Con and Tuy Loan are the major first-order streams of the Vu Gia. The river basin belongs to the South Central Coast Region within the tropical monsoon climate zone. Compared to the rest of Vietnam, this area has the longest dry season since it occurs for eight months (from January to August), characterized by low rainfall, frequently leading to droughts. In the wet season, the rainfall is very high, causing large-scale floods.

The Thu Bon River flows northwards from its source in the Mount Ngoc Linh (2,598 m above sea level) in Kon Tum Province, joining the Vu Gia River flowing from the Lao border at Dai Loc, and flows through Hoi An 25 km downstream as the Cua Dai River, discharging into the East China Sea. After joining the Vu Gia River, part of the river becomes the Vien Diem River, which joins the Can Do and Cam Le Rivers, and discharges into Da Nang Bay. Near Hoi An, the Cua Dai River diverts parallel to the coast into the Truong Giang River.

The Thu Bon River forms a river delta after its confluence with the Vu Gia River, characterized by unstable banks despite its high flood discharge. It has a catchment area of 3,825 km^2 and a channel length of 198 km, with a relatively gentle gradient of 1/2,000 to Nong Son village and a river width of about 800 m. After the confluence with the Vu Gia River, the river delta is flat at 1/5,000 and the river is narrower at about 300 m. The Vu Gia River has a catchment area of 5,180 km^2 and a channel length of 205 km and is flat after its confluence with the Thu Bon River. The Vu Gia River also carries 50,000-60,000 m^3/km^2 of sediment per year from the granite of the Annam Mountains, which accumulates downstream and causes river mouth blockages.

Climate: The basin receives high rainfall during the rainy season from September to December, with average annual rainfall in the uplands ranging from 3,000–4,000 mm, causing large-scale floods. Compared to the rest of Vietnam, this area has the longest dry season of eight months (from January to August), characterized by low rainfall, frequently leading to droughts.



Source: The University of Danang – University of Science and Technology

Figure 3 Geographical Map of the Vu Gia Thu Bon River Basin

7 Legal Framework for Environmental and Social Considerations

7.1 Laws, Regulations and Standards Related to Environmental and Social Issues

Vietnamese laws and regulations related to strategic environmental assessment (SEA) and environmental impact assessment (EIA) are, in descending order, the Law on Environmental Protection (LEP, Law No. 72/2020/QH14), the Decree on the Law on Environmental Protection (Decree No. 08/2022/ND-CP), and Ministerial Order (Circular No. 02/2022/TT-BTNMT) which provides detailed implementation regulations. The SEA, EIA reporting requirements and the reviewing bodies for the prepared reports are central government related ministries and local governments depending on the scale and the nature of the plan/project.

LEP provides for environmental protection plans to be included in the local master plans in line with the Planning Law 2017. The revised LEP also emphasizes the importance of reflecting the views of areas that may have environmental impacts and focusing on the consistency of projects with the master plan of respective areas. Other notable differences from previous LEPs include; 1) Clarification of the roles and responsibilities of the residents of the target areas and of the operators for environmental protection; 2) It stipulates in detail the disclosure of information;3) Establishing an online system for receiving, processing and replying to complaints, suggestions and advice on environmental protection from organizations, individuals and resident communities; 4)Responsibility of the investor for consultation with the resident communities in the project in the EIA; 5) Supplement regulations on climate change adaptation, greenhouse gas emission mitigation, and integration the contents into strategies, plans and international commitments. Three points are highlighted: creating policies for the development of sustainable economic growth models, promoting a circular economy, and restoring and developing natural

resources. Vietnam's environmental impact assessment procedures are generally considered to meet the requirements of international organizations.

7.2 Relevant legislation and plans other than the LEP

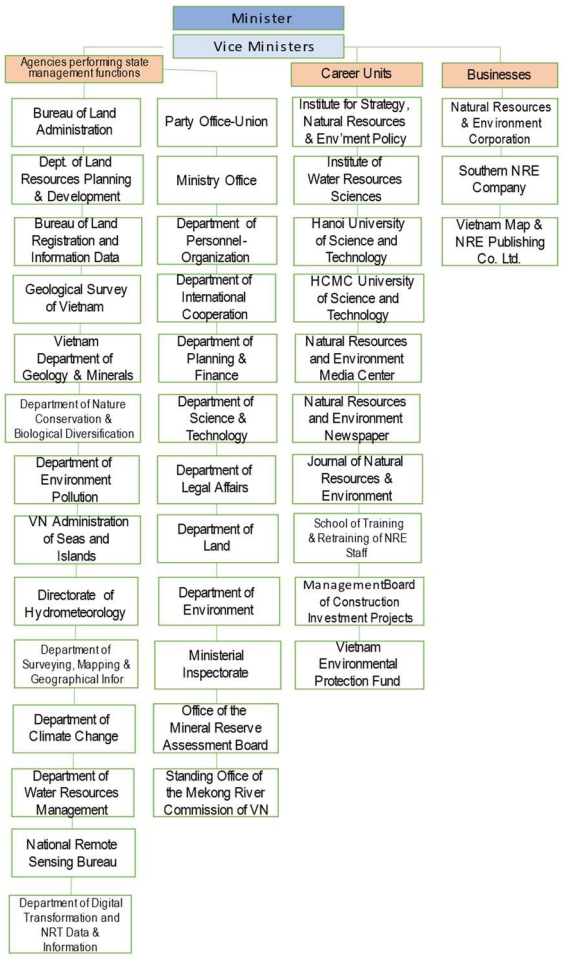
The legislation on land acquisition and resettlement is based on Land Law (No. 45/2013/QH13) separately. Nature reserves are regulated by the Forest Law (No. 16/2017/QH14) and forest policy is under the jurisdiction of MARD. Biodiversity is governed by the Biodiversity Law (No. 20/2008/QH12) and is under the jurisdiction of Ministry of Natural Resources and Environment (MONRE). The Projects need to proceed in accordance with these respective legislations. Reference should be made to the necessary laws and regulations such as the Public Investment Law, the Investment Law, the Water Resources Law and the Urban Planning Law. In addition, the Law on Disaster Management, the 'Natural Disaster Prevention and Management Plan for 2021-2025' developed at the local level under the National Disaster Management Strategy, the Law on Irrigation and other relevant documents on disaster management and flood control should be reviewed in relation to their environmental and social impacts. Further, the decisions on the basis of compensation and resettlement funds are calculated when state projects acquire land for local ministries are reviewed.

Information contributing to the baseline required for environmental and social considerations shall be found in the "Draft Report of the National Environmental Protection Planning for the period 2021-2030, with a vision to 2050" to be approved at the beginning of 2023. Two rivers, Ba, Vu Gia - Thu Bon, are among the 13 important rivers to be monitored constantly in the river environment.

7.3 Relevant Agencies and Institutions

7.3.1 MONRE

Environmental administration in Viet Nam is under the lead of the Ministry of Natural Resources and Environment (MONRE), which was established in 2002. MONRE has prepared the National Environmental Report (2018): Watershed Water Environment, which examines the current status and challenges of watershed management in Viet Nam in 2018. MONRE is also the lead agency in environmental impact assessment, but depending on the scale and sector, provincial ministries are also stipulated to be responsible for approving EIA reports. However, MONRE has the authority to approve EIA reports for projects that involves the plural provinces (Article 35 of the LEP). When conducting an environmental impact assessment, it is necessary to receive advice from the specialized departments shown in Figure 3.3, depending on the content, and the implementation system for environmental and social considerations should be flexible depending on the implementation system of the IFMP.

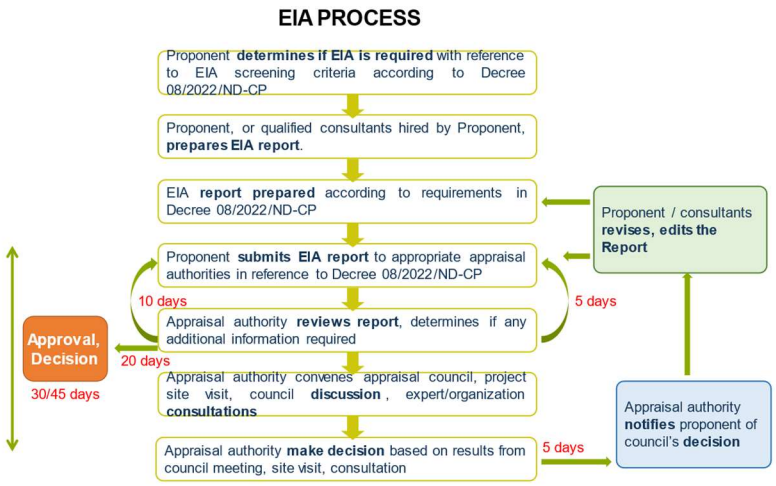


Source: MONRE Website

Figure 4 Organization Chart of the MONRE

7.3.2 Flow of Environmental Impact Assessment Approval

The table below shows the flow of Environmental Impact Assessment to obtain the approval under the LEP.



Source: EIA Legislation in Vietnam, MONRE, Joint Seminar by ISPONRE and Japan Association of Environment Assessment (JEAS) to explain the Revised Environment Protection Law (LEP2020) in Vietnam

Figure 5. EIA Process under the LEP 2020

8 Provisional Scoping

The Project prioritizes the project schemes which contribute to the flood protection and restoration. Those prioritized projects might require land acquisition permanently or temporary (during the construction) to build the intended infrastructure. The prioritized projects may require involuntary resettlement, affect assets, farmlands, graves, and livelihood of the people living near the infrastructure. The table below shows the provisional scoping of the environmental and social impact from those projects prioritized under the Project. This provisional scoping is based on the potential flood control facilities to be prioritized under the Project and developed in the following phase. Environmental items in the table are those for the projects for river and erosion control given in the Guideline.

Envisaged flood control facilities are as follows.

- New structural measures:

  Retention basins, gate facilities

- Improvement of existing facilities:

  Reconstruction of dam, River improvement (channel widening, riverbed dredging), rehabilitation of weirs

Table 3. Provisional Scoping (for River and Erosion Control Sector)

Category	#	Environmental items	Evaluation		Reason for evaluation
			P/C Phase	O Phase	
Pollution	1	Air pollution	✔		C Phase: Dust and other particles are expected to be generated by heavy machinery and construction equipment, but insignificant impact. O Phase: No impacts during operation in the area for prioritized projects.
	2	Water pollution	✔		C Phase: Potential for turbidity around and downstream of the construction site. O Phase: Not change water quality for long term
	3	Waste	✔		C Phase: Disposal of excavated soil required. Solid waste will be generated as a result of construction work. O Phase: No activities generating waste are envisaged.
	4	Soil pollution	✔		C Phase: No hazardous substances causing soil contamination are used in construction. O Phase: No activities contaminating soil are envisaged.
	5	Noise and vibrations	✔	✔	C Phase: Noise may be generated due to the operation of heavy machinery and equipment. O Phase: No activities causing noise and vibrations are envisaged.
	6	Subsidence of terrain	✔	✔	No activities (such as large-scale pumping of underground water) are envisaged that may cause the terrain to subside.
	7	Odors	✔		C Phase: Offensive odor may result from sludge dredge of waterway. O Phase: No activities creating offensive odor are envisaged.
	8	Riverbed sediment	✔	✔	No activities that may impact sediment of the riverbeds or waterways are envisaged.
Natural environment	9	Protected areas	✔	✔	P, C Phases: Depending on the locations of the project site, potential impact on the flora, fauna and ecosystems of the protected areas such as nature reserves, national parks, existing in the respective river basins are envisaged. The pre-feasibility study is not expected to be conducted in the protected areas. O Phase: Depending on where, and what to implement, negative impacts on the protected areas may result.
	10	Ecosystem	✔	✔	C, O Phases: The operation of construction equipment, the transport of materials, the establishment of work yards and the alteration of streams and landforms may affect aquatic life in the stream and the flora and fauna of the surrounding forest. O Phases: Changes in flow and topography may alter the habitats of aquatic organisms and forest fauna and flora. Where fish and other aquatic organisms inhabit streams, upstream and downstream traffic is impeded by dams, etc. Riverbed and riparian habitats are altered.
	11	Hydrological conditions	✔	✔	C, O Phase: The flow is altered as a result of the installation of structures and alteration of the river channel.
	12	Topography and geology	✔	✔	C, O Phase: Possible alteration of the terrain for the installation of structures, laying of work yards and construction roads.
Social environment	13	Resettlement and land acquisition	✔		P Phase: Land is required for the construction of structure installation sites, work yards and construction roads. Economic relocation may also be required for land that has not been granted official rights of use, if the inhabitants use the land as agricultural land or for other purposes. C, O Phase: No additional land acquisition or resettlement will be necessary
	14	Poverty	✔	✔	P Phase: Among the population to be affected (PAPs), some people may belong to poverty groups. Households that utilize water resources and other resources in the river basin for their livelihoods need to be carefully considered. C Phase: If adequate considerations are given before starting to land acquisition, negative impact can be mitigated or avoided. O Phase: Flood control works can stimulate local economy, creating employment opportunities, thus positive impact is expected.
	15	Ethnic minorities and indigenous peoples	✔	✔	P Phase: Need to confirm presence of ethnic minorities and indigenous groups in and around the project areas. C, O Phases: Consideration needs to be given to the culture and livelihoods of ethnic minorities.
	16	Local economy such as employment and livelihood	✔	✔	C Phase: Employment of locals or a new business opportunity could be ensured for the construction works. O Phase: Flood control works will reduce the disaster risks, thus positive impact on local economy is expected.

Category	#	Environmental items	Evaluation		Reason for evaluation
			P/C Phase	O Phase	
	17	Land use and local resources	✔	✔	P Phase: Some negative impacts may result if a change in land use of private land is necessary. C Phase: Construction, transport of materials and establishment of work yards may hinder residents' use of agricultural land, fisheries, collection of forest products and other activities. O Phase: Those households catch fishes in streams, may be affected by the construction of structures, e.g. by blocking fish runs.
	18	Water use/rights	✔	✔	C Phase: Construction may result in turbulence of water, causing impact on daily use and agricultural use of water. O Phase: Water use pattern may improve depending on what development to implement.
	19	Existing social infrastructures and social services	✔	✔	P Phase: Installation of work yards and construction roads may affect existing roads, irrigation canals, etc. O Phase: if provisioning reduces flood damage, it will reduce damage to existing roads and social infrastructure.
	20	Social capital and social structure of regional decision-making organizations			P, C and O Phases: No impact on social organizations, such as social-relationship capital and local decision-making bodies, is envisaged, as this will lead to flood reduction in the target catchment. However, the impact will be considered if land alteration is required on a large scale.
	21	Misdistribution of benefits and damage	✔	✔	Confirmation is necessary as it is noted whether there are different regional impacts, e.g. due to changes in water abstraction conditions.
	22	Local conflict of interests	✔	✔	The impact of water use might cause the conflicts of interest within the region.
	23	Cultural Heritage	✔	✔	P, C Phases: The World Heritage Sites of Hoi An and My Son Sanctuary are in the target basins and the impact of cultural heritage in the surrounding area needs to be confirmed. O Phase: No negative impact is expected after completion of the construction.
	24	Landscape	✔	✔	P Phase: No activities causing impact on landscape are envisaged. C Phase: Some negative impact on landscape is envisaged if large scale tree removal is necessary. O Phase: No activities causing impact on landscape are envisaged.
	25	Gender	✔	✔	P Phase: Problems may arise in terms of equality in women's rights for compensation and livelihood restoration in the process of land acquisition and the resettlement. C Phase: Gender inequality in job opportunity related to construction works may arise. O Phase: No negative impacts on gender issues are envisaged.
	26	Children rights	✔	✔	P Phase: Problems may arise regarding the rights of children with respect to compensation for land acquisition and resettlement. C Phase: Problems may arise with the rights of children related to labor for construction. O Phase: No negative impact on the rights of Children is envisaged.
	27	Infectious diseases such as HIV/AIDS	✔		C Phase: Infectious diseases may spread due to the influx of workers on site. O Phase: No impact on infectious diseases such as HIV/AIDS is envisaged.
	28	Working conditions (including work safety)	✔		P Phase: No activities related to the working conditions are envisaged. C Phase: Some negative impacts may result regarding safe labor conditions if technically difficult tasks are carried out by local workers. O Phase: No activities that may deteriorate working conditions are envisaged.
Others	29	Accidents	✔	✔	P Phase: No activities causing accidents are envisaged. C Phase: Risk of accidents may increase for workers and local residents due to increase in construction vehicles. O Phase: Flood control works can improve safety of vehicles and pedestrians.
	30	Cross-border impacts and climate change	✔	✔	C Phase: No negative impact is envisaged given the modest size of project. O Phase: Flood damages from heavy rain can be managed/mitigated by flood control works as measures against climate change.

P: Planning, C: Construction, O: Operation

Source: JICA Team based on the framework of the JICA Guideline

9 Result of the consultation with recipient government on environmental and social consideration including roles and responsibilities

To be determined during the Project.

VNDMA and Provincial People's Committees agreed to abide by 'JICA Guidelines for Environmental and Social Considerations' to ensure that appropriate considerations will be made for the environmental and social impacts of the Project. This statement of agreement is described in the Record of Discussions (R/D) on this project.

10 Other Relevant Information

None

Appendix

Terms of reference for environmental and social considerations on the Project for Flood Damage Restoration and Formulation of A Flood Prevention and Control Master Plan in the Central Region

JICA applies a Strategic Environmental Assessment (SEA) when conducting Master Plan studies etc., in accordance with the JICA Guidelines for Environmental and Social Considerations Item 3 of the Section 3.4.2[1]. The requirement of SEA complies with the Law of Environmental Protection (LEP) of Vietnam, which describes SEA as the process of identifying and predicting trends in major environmental issues to form a basis for incorporating environmental protection measures into a policy, strategy, or planning.

The SEA is environmental assessment at Policy (P), Planning (P), and Program (P), (PPP) level. It has a profound significance in the plans for proactive environmental and social considerations into the higher levels of decision-making processes by early warning on environmental and social impacts, broad and long-term perspective.

After drafting of the master plan, scoping of impacts is conducted for the priority projects selected in the master plan. These priority projects are selected after comparative analysis of alternatives. Specifically, items that should be investigated in the environmental impact assessment (EIA) of priority projects are selected. Then, the method of survey and impact prediction are identified.

Complying with requirement of SEA under the Project elaborated in the LEP and JICA Guidelines, terms of reference of SEA is summarized as follows.

Terms of Reference for SEA on the master plan is shown, but not limited to, below.

(1) Review the goals/objectives for River and Erosion Control Sector development planning.

(2) Conduct comparative analysis of alternatives to realize the goals/objectives.

[1] https://www.jica.go.jp/english/our_work/social_environmental/guideline/c8h0vm0000013gbd-att/guideline_03.pdf

(3) Review the contents of the existing policies/plans/programs and examine the issues on environmental and social aspects for the River and Erosion Control Sector development planning.

(4) Support the implementing organization of IFMP to set up the SEA implementation framework, to analyze roles of relevant organizations, and to team up of experts. Identify legal framework and institutions of Vietnam on environmental and social considerations, including.

1) Laws, regulations, and standards related to environmental and social considerations (e.g. those related to strategic environment assessment, environmental and social impact assessment, resettlement, public participation, information disclosure);
2) Gaps between the JICA Guidelines and the legal framework of Vietnam on environmental and social considerations and how they will be filled in the Project.
3) Organizations responsible for implementation of environmental and social considerations including SEA and ESIA and division of their roles.

(5) Review of legal and technical bases for SEA.

(6) Define the spatial range and time range of SEA implementation, that are likely to be affected by the implementation of the IFMP. Conduct scoping (clarify crucially important items on environmental and social impacts and its evaluation methods to be taken into account in the decision making such as policy, plan, and program levels).

(7) Identify the environmental composition, natural heritage, regional socio-economic conditions likely to be affected by the Master Plan, and prepare the baseline of the environmental and social impact assessment (e.g. land use, environmental pollution, natural environment, socio-economic situation, socio-cultural environment, lifestyle of indigenous people and communities).

(8) Assess the suitability of the contents of IFMP with viewpoints, goals, and policies on environmental protection. Assess the impact of the alternative plans based on the results of scoping Assess and forecast trends of major environmental issues in the case of implementation of the Master Plan.

Predict likely impacts by the flood management projects (Dai Loc and retarding basins (Vu Gia Thu Bon), etc.)

(9) Assess the likely impacts and comparative analysis of alternative of proposed projects, including 'without project' option.

(10) Examine the mitigation measure (to avoid, minimize and compensate)

(11) Identify monitoring methods based on the mitigation measures.

(12) Conduct scoping of environmental and social impacts of priority projects (i.e. identify important environmental and social impacts and how they will be predicted and evaluated)

(13) After the disclosure of the scoping drafts/draft reports, consultations with local stakeholders are conducted based on stakeholder analyses. The results of consultations should be reflected in the project plan.

(14) Support to conduct consultation and summarize the outputs to be incorporated in to the IFMP.

(15) Support to draft the SEA Report to be jointly approved with the IFMP.

(16) Identify the issues which need to be further studied during the implementation stage of the IFMP and prioritized projects.

Terms of reference for environmental and social considerations on the Pre-Feasibility Study to be conducted through the Project for Flood Damage Restoration and Formulation of A Flood Prevention and Control Master Plan in the Central Region

1. Consultant shall conduct Initial Environmental Examination in compliance with the Japan International Cooperation Agency (JICA) Environmental and Social Considerations Guidelines (April 2010) (the JICA Environmental Guidelines) for the Project.
2. Specifically, the following studies will be conducted.

(1) Confirmation of environmental and social consideration systems and organizations of the host country
   1) Laws, regulations, and standards related to environmental and social considerations (Environmental Impact Assessment, Information Disclosure, and others)
   2) Gaps analysis between the JICA Environmental Guidelines and the legal framework on Environmental and Social Considerations, and bridging the gap.
   3) Review of relevant organizations responsible for implementation of projects and their roles

(2) Scoping on possible environmental and social impacts and its evaluation methods
(3) Conducting baseline surveys for Environmental and Social Considerations, including pollution prevention measures, natural environment, designated area for conservation of nature and cultural heritage, land use and data gathering of areas of social economic, social situation and others, such as inhabited by indigenous peoples, involuntary resettlement, land acquisition and others. Especially for pollution prevention measures, consultant shall gather baseline data through measurement in the project area if there are no secondary quotative data of the project area.
(4) Prediction of likely impacts of the proposed pilot projects based on the scoping
(5) Assessment of likely impacts of the plans and comparative analysis of alternative proposed plans, including the “without project” option
(6) Examination of mitigation measures (to be avoided, minimized, reduced, mitigated, and compensated)
(7) Preparation of Draft Environmental Management Plan and Monitoring Plan (Implementation structure, method, cost, monitoring form and others)
(8) Clarification of estimated cost, budget, and implementation structure
(9) Implement stakeholder analysis and support for holding stakeholder consultations (examination of objective, participant, method, contents, and others. See JICA Environmental Guidelines Appendix 5.)
(10) Examine GHG emissions during operational phase
(11) Preparation of Draft EIA (Environmental Impact Assessment) report based on result of above survey, if necessary

END