

INTEGRATED SAFEGUARDS DATA SHEET CONCEPT STAGE

Report No.: ISDSC9069

Date ISDS Prepared/Updated: 24-Feb-2015

Date ISDS Approved/Disclosed: 24-Feb-2015

I. BASIC INFORMATION

A. Basic Project Data

Country:	Vietnam	Project ID:	P149696
Project Name:	HCMC Flood Risk Management (P149696)		
Task Team Leader(s):	Madhu Raghunath,Hung Duy Le		
Estimated Appraisal Date:	14-Dec-2015	Estimated Board Date:	15-Apr-2016
Managing Unit:	GSURR	Lending Instrument:	Investment Project Financing
Sector(s):	Flood protection (60%), Sanitation (40%)		
Theme(s):	Natural disaster management (50%), Environmental policies and institutions (30%), Other urban development (20%)		
Financing (In USD Million)			
Total Project Cost:	467.00	Total Bank Financing:	422.00
Financing Gap:	0.00		
Financing Source			Amount
BORROWER/RECIPIENT			45.00
International Bank for Reconstruction and Development			422.00
International Development Association (IDA)			0.00
Total			467.00
Environmental Category:	A - Full Assessment		
Is this a Repeater project?	No		

B. Project Objectives

The proposed Project Development Objective is to reduce flood risk and improve drainage in selected areas in Ho Chi Minh City.

C. Project Description

2. The proposed project is part of the World Bank's long-term engagement supporting HCMC's

efforts to reduce the overall flooding situation. Given the extensive needs of the city, complexity of addressing flood risk management issues and the limited financing envelope, a two-phased Road Map for Integrated Flood Risk Management is being proposed, with each phase having clear targets for institutional development and infrastructure investments.

Road Map for Integrated Flood Risk Management in HCMC

Institutional Capacity

Year (2016)

- Evaluation of institutional fragmentation in HCMC's Flood Risk Management completed HCMC FRM Phase 1 Program (2016-2021)
- Unified entity for flood risk management established
- Core capacity for integrated planning for flood risk management developed, including consideration of "green" and nonstructural measures

Phase 2 program (2021-2027)

- Professional organization with Flood Risk Management capabilities established
- Well-functioning information systems established
- Operation and Maintenance Systems established
- Policy mechanisms HCMC to influence for river basin scale planning established

Infrastructure Capacity

Year (2016)

- Close to 60% of Plan 752 completed
- Investments in four sub catchments of the inner core area completed
- TLBC canal dredging completed
- No system of tidal flood prevention for inner core of HCMC

HCMC FRM Phase 1 Program (2016-2021)

- Completion of 752 plan improvements to the TLBC sub-catchment through dredging, canal bank protections, storm water and sewage development and improvement of secondary canals
- Four well-functioning critical tidal sluice gates under MARD 1547 plan.

Phase 2 program (2021-2027)

- Completion of interventions in all 5 sub catchments
- Entire HCMC's flood control and drainage systems well-functioning
- Waste Water Treatment system established and well-functioning
- Completion of 1547 Plan, including tidal sluices gates system, ship locks and dykes on left bank of Saigon river and Thu Duc Districts

3. As part of the first phase, the focus of the proposed HCMC FRM project would be to develop the institutions and tools needed to enhance the institutional capacity of SCFC and other relevant departments and authorities for integrated flood risk management while immediately improving the conditions of TLBC with "no/low regrets" structural investments.

4. Specifically, the objective of the first phase will be along dual tracks:

- Institutional strengthening: International experience (8) suggests that it is important to have a unified, professional entity at the city level that fulfills the following responsibilities and mandates: (a) coordinate effectively across various agencies at city and central levels; (b) be responsible for development of a flood risk management plan, and operation and maintenance of the city flood risk management systems (including flood protection, drainage systems, local canals, flood/tidal gates and valves) as a whole; and (c) develop and carry out emergency responses plan, including

implementation of last-mile early warning system (9), public relations, and citizen participation. In Vietnam, it is essential that such an entity has direct reporting arrangements with the People's Committee. Capacity strengthening will also need to be provided to other relevant institutions in the City to ensure harmony and coordination with the abovementioned entity, especially with regards to environmental monitoring and protection.

- **Structural no-regret interventions:** To minimize flooding to the inner core area of the city by putting in place no-regret structural investments in flood management and sewage developments combined with storm water drainage in the Tham Luong – Ben Cat – Rach Nuoc Len sub-catchment, which are complemented by an initial set of institutional strengthening measures. In addition, the project will finance preparation studies for strategic tidal sluice gates that would alleviate tidal water intrusion into the city's canal network. The investments would be derived from the set structural interventions that have been proposed in Plan 752 and Plan 1547.

5. The proposed Project will include three components:

Component 1 – Capacity Building for Integrated Urban Flood Risk Management (Estimated Cost: US\$ 17 million)

6. This component will strengthen the capacity of SCFC and other public institutions to better plan and implement flood risk management measures (including disaster preparedness through early warning and flood emergency response, and risk reduction through risk sensitive spatial and sector planning), as well as to safeguard the river water quality and the health of the people living along the proposed canals. It would likely include:

- **Modernization of the Hydromet Observation Networks and Forecasting:** Three main investments are needed to improve local level forecasts in HCMC: (1) expanded observational network and ICT systems, (2) detailed hydromet modeling tools, (3) technical capacity at the city level to oversee these tasks and issue user-tailored warnings to the relevant stakeholders (e.g. in DRM, Transportation, Health, Energy, Water Resources). To avoid fragmentation and non-compatibility of different sub-systems in Vietnam, the investments will follow the national hydromet system architecture specifications developed under the Vietnam Managing Natural Hazards Project.
- **Flood Risk Information Management System:** A city-level information system would need to be established in SCFC to support key flood risk management decisions for enhanced preparedness and response actions, and risk reduction investments. It would be designed to take the hydromet modeling output and automatic data observation network for better flood monitoring as dynamic data streams. The system would be established in a flood operation/command room with equipment, flood modelling and a pool of trained experts. In addition, SCFC will receive support to build capacity to analyze the collected data, such as detailed flood hazards, exposures and risk mapping to developed tailored outputs for key stakeholders. The processed information would be accessible by relevant agencies and public to help better plan and make risk sensitive investment decisions, improve operation of the drainage and flood control systems, and provide support to emergency and public early warning operations.
- **Enhanced Early Warning and Flood Emergency Response:** This activity focuses on the institutional and regulatory actions required to strengthen early warning and flood emergency response capacity. It is dependent on improvements to hydromet and information management systems described above. It will help the city develop (i) improved Standard Operating Procedures and regulatory frameworks for early warning issuance and flood response mechanisms including

greater involvement of community and local stakeholders particularly to improve “last mile” early warning efficacy; (ii) protocols for operating the city's flood control and drainage systems including clarification of responsibilities of the three key agencies in managing and operating the systems during emergencies (high tide, excessive precipitation, upstream river discharge, etc.); (iii) an Operations & Maintenance (O&M) funding framework for the systems; and (iv) a protocol between the city and upstream dam operators to share information and enhance downstream flood prediction for early warning.

- **Capacity for risk sensitive spatial and sector planning:** This activity would strengthen the capacity of city agencies for integrated river basin management with a focus on non-structural and “green” investment measures. Based on the specific needs identified during preparation, standardized planning tools (both policy and technical) would be developed including the possibility of participatory watershed management. This will likely require additional monitoring data, such as scaled-up land subsidence monitoring system related to ground water management, which can be linked and synchronized with the information system established within the SCFC for flood risk analysis and mapping.
- **Canal water quality management program:** This program will build and strengthen the capacity of main stakeholders (DONRE and SCFC) to investigate (e.g., inspect) and supervise (e.g. monitor) the water pollution risks generated by various sources such as untreated industrial zones actions, domestic activities and overall sewage discharges in the project area. It will finance (1) support with the broader monitoring network required for HCMC surface water, groundwater and air quality including automatic monitoring stations strategically selected along the targeted canal systems; (2) preparation of a detailed sediment management study and plan addressing sludge and sediment pollution management that builds on existing relevant flood risk management studies and solid waste master plan developed for the basin; (3) strengthening of the water quality monitoring program management – this will consist of resources to revise the existing water quality indicators, sampling and analysis procedures and protocols to enhance the management of surface water quality in HCMC, as well as to increase the local capacity (including laboratories) to improve water resources risk management and train field staff and those responsible to sample, analyze, report and coordinate on water quality on a regular basis; and (4) local capacity improvement for solid waste management in the project area: this activity will finance public awareness program consisting of educational campaigns related to environmental and public health concerns associated with waste management

Component 2 – Priority Flood Risk Reduction Interventions (Estimated Cost: US\$ 406 million)

7. Priority Flood Risk Reduction Investments in Tham Luong – Ben Cat – Rach Nuoc Len sub-catchment. This component would support the City in implementing significant structural measures proposed in the JICA Plan (Plan 752). The scope of this work including:

- 2.1. Construction of 2 tidal sluice gates at the end Vam Thuat and Rach Nuoc Len Canal to control tidal inflows.
- 2.2. Improvements to the Tham Luong – Ben Cat – Rach Nuoc Len Canal through dredging and constructing embankments to improve its ability to discharge flood waters at the safety level of 100-year return period. At the sub-catchment level, the proposed project will examine options for storm water retention, infiltration, green areas, and pervious concrete.
- 2.3. Construction of a primary and secondary combined storm water drainage and waste water sewage system in Go Vap District at the safety levels of 20-year and 10 year return period, respectively.

2.4. Improvement of secondary canals that are connected with primary Tham Luong – Ben Cat – Rach Nuoc Len Canal at the safety level of 10-year return period to improve the urban flood management and to reduce the pollution of the Canal and Sai Gon River with sewage water.

2.5. Provision of consultant services, as well as project monitoring and evaluation (M&E) functions including independent monitoring of RAP and EMP implementation, also to help the City to prepare and carry out the implementation of land acquisition and environmental impact mitigation plan.

Component 3 – Implementation Support (Estimated Cost: US\$ 44 million)

8. This component would provide support to the following activities: preparation of feasibility studies, detailed design and bidding documents; construction supervision; and implementation and monitoring of social and environmental safeguards policies. The primary activities proposed under this component will include:

- Preparation studies of Two Priority Tidal Flood Control Sluice Gates of Cay Kho and Phu Dinh under MARD 1547 Plan. Two gates would reduce the impact of tidal flows to the inner core area, particularly in the high tide season;
- Provision of equipment; and
- Provision of technical assistance, composed of national and international specialists for management support, including advisory and training support.

D. Project location and salient physical characteristics relevant to the safeguard analysis (if known)

9. The location of the proposed project is in HCMC in the basin of the Tham Luong-Ben Cat-Nuoc Len (TL-BC-NC) canal which is 32.7 km long, covers an area of about 14,900 ha and occupies 30% of the HCMC inner city area. The project will impact 9 districts in HCMC, which host a population of about 1.88 million people (based on 2010 survey) estimated to reach 2.33 million by 2020. The waters of this canal are hydraulically connected with Saigon river, Cho Dem River, and several catchments such as Thanm Luong-Ben Cat, Saigon West, and Binh Tam. The project area is known to be affected by heavy floods that cover the surroundings from different directions, and is characterized by urban settling, industrial activities as well as intense road and waterway transportation planned for extension and further socio-economic development in line with the recent city master plan (2 documents referenced in PCN). The water is highly polluted from various sources including restaurants, quarries and sand operations, as well as from the activities of two industrial zones (Tam Binh and Tan Tao), which discharge effluents directly into the canal and seem to not meet national standards for water surface quality. Also, in some portions of the canal, banks are covered with black polluted sediments that were dredged under first phase of the program and left uncovered in front of houses or next to ongoing activities. Although intensively used for transportation of passengers and goods, the canal reaches low water levels in some areas, which interrupts further proper use of the canal by boat.

10. The investments for the component 2 concern river engineering rehabilitation works with the main target to reduce the flood risks and control stormwater drainage along the left bank of Saigon River in the TL-BC-NC sub-catchment. Specifically, works will include significant structural measures and relevant activities such as dredging and canal bank protections, improvements of secondary canals, construction of stormwater drainage systems with culverts and sluice gates along the entire length of the noted canal. The planned flood prevention interventions require site relocation along both banks of the canal (20 m wide of each site) for about 3,200 households and dredging of the entire canal to enhance its navigability up to grade V for waterway transportation.

The depth of the canal varies between -3.5 and -4.5 m and in line with the new master plan an average of 1 m depth of materials is required to be dredged to meet the conditions of grade V transportation. In addition, the project will develop capacity at the local level for public awareness on solid waste issues around the project area.

11. The overall project area of impact is the respective HCMC area and its population, the 32.7 km canal including its bed and areas around the banks on both sides, as well as the downstream and left bank of the Saigon river itself.

E. Borrowers Institutional Capacity for Safeguard Policies

12. HCMC has prior experience in working with the Bank in general and is familiar with the Bank's safeguards policies. HCMC has previous overall good record of compliance with social safeguard policies in the Bank-funded projects although the preparation of recent projects has demonstrated weaknesses in HCMC ability to prepare safeguards documents. SCFC has staff who worked on a Bank-funded project and are familiar with Bank policies and requirements although in recent Bank projects this was not the case. However, given the high risk and level of impacts of this project, close guidance for the preparation of the relevant project environmental and social safeguard documentation (e.g., good quality EIAs, RP and due diligences for previous and ongoing activities) as well as implementation of feasible EMPs and RP will be required. A detailed assessment of the Client capacity for safeguards implementation will take place during project preparation based on which specific capacity building activities will be developed in agreement with SCFC.

F. Environmental and Social Safeguards Specialists on the Team

Hoa Thi Mong Pham (GSURR)

Roxanne Hakim (GSURR)

Ruxandra Maria Floroiu (GENDR)

Thuy Cam Duong (GENDR)

II. SAFEGUARD POLICIES THAT MIGHT APPLY

Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/BP 4.01	Yes	All three project components' activities have potential significant environment and social impacts, therefore the Project is proposed as category "A". In addition to Component 2 that finances implementation of priority flood risks reduction investments and relevant infrastructure, Component 1 will undertake a detailed sediment management study and management plan for sludge and polluted sediments, which could have downstream impacts if not properly implemented. Also, component 1 finances investments linked to development of protocols for better management of drainage systems and reservoirs (for which ToRs will include requirements to follow/meet applicable safeguards provisions) as well as expansion of hydromet observational networks (for which site EMPs/ECOPs might be required). Further, Component 3 will

		<p>finance TA activities including technical studies for two priority tidal flood control sluice gates, which will follow WBG environmental and social safeguards provisions and performance standards for category A project. For Component 2, the Client has prepared technical studies at the level of Feasibility study including the relevant EIAs that have been approved in line with the national legislation. These documents have been reviewed by the Bank team in order to assess the applicability of the OP 4.01 requirements for category A projects. This review called for gaps in information and Bank requirements, therefore the client is engaging an independent firm to address the missing data and analysis in a Consolidated Project ESIA covering all subprojects, based on ToRs cleared by the Bank.</p> <p>The ESIA will apply WBG Environmental Health and Safety Guidelines in addition to relevant national laws. The ESIA will include impact assessment of ancillary facilities (sludge disposal for dredged materials and from wastewater treatment plants) and/or environmental and social audits/due diligence for existing ancillary facilities like Da Phuc Landfill and linked activities like the Tam Luong Ben Cat Wastewater treatment plant. It will also include a chapter on cumulative impacts in the project area of influence following acceptable methodology (e.g., IFC Good Practice Note on CIA). The project area of influence has been determined to cover the zone upstream of HCMC airport till district 12 and downstream till Binh Chanh district. Furthermore, the area of influence will include off-site facilities such as Da Phuc Landfill.</p> <p>At least, two public consultations will take place before project appraisal to discuss the ToRs for the project ESIA and the draft ESIA once available.</p>
Natural Habitats OP/BP 4.04	Yes	<p>The project interventions including dredging, river banks rehabilitation, and land clearing will be located primarily in urban area. The project is expected to have positive impacts on natural habitats. The EA process will assess any possibility of project impacts on natural habitats, including protected areas or other sensitive ecological sites downstream currently unknown, for which provisions of appropriate</p>

		conservation and mitigation measures could be necessary during works.
Forests OP/BP 4.36	No	No activities financed under this Project are anticipated in forest areas or impacting forests.
Pest Management OP 4.09	No	The project activities are not expected to use pesticides, nor lead to increased usage of pesticides.
Physical Cultural Resources OP/BP 4.11	TBD	The project activities take place in urban areas of HCMC, specifically along the TL-BC-NC canal of 32.7 km where PCRs are unknown. However, any PCR presence will be assessed further during project preparation as part of EA process and chance finds provisions will be incorporated in the site specific ESMP to be followed during works and project implementation
Indigenous Peoples OP/BP 4.10	No	Screening of ethnic minority by the World Bank team showed that there are no ethnic minority communities as per OP4.10 living in the proposed project area or affected by the project, so OP/BP 4.10 is not triggered.
Involuntary Resettlement OP/BP 4.12	Yes	<p>The project triggers OP4.12 on Involuntary Resettlement because it will cause physical and economic displacement of people.</p> <p>1. Under the Government-funded activities prior to Bank involvement, there were 3,212 affected HHs, 1,267 of which had to be relocated. Most of the compensation and resettlement activities have been completed. However, there are 398 pending cases to date who have not yet received or accepted the offered compensation or handed over the site to the project. The Bank has requested that the client provide a detailed due diligence report on the land acquisition and resettlement that took place prior to Bank involvement including outstanding pending cases. The due diligence report should document that the land acquisition and resettlement is consistent with the Bank policy objectives and, in cases where it is not, provide for remedial measures to ensure that it is consistent with the objectives of the Bank policy. The Bank has proposed to assist HCMC to undertake such a due diligence by providing the ToR and recommending an international consultant to be hired by HCMC.</p> <p>2. Under the new proposed project activities about 26.7 ha of land would be acquired and about 517</p>

		<p>HHs would be affected. Based upon the assumption that no lands acquisition or resettlement will take place prior to Board a RP will be developed for the proposed activities in line with OP/BP4.12. A due diligence to ensure compliance with OP 4.12 will be developed as part of the RP for any land acquisition or resettlement that would take place prior to Board.</p> <p>3. The TLBC waste water treatment plan was identified as a link activity. Land acquisition activities have been almost completed for 6 hectares to be used for civil works. A full due diligence review on its consistency with the objectives of OP 4.12 will be carried out as part of RP preparation.</p>
Safety of Dams OP/BP 4.37	TBD	The project will not involve any dam construction or rehabilitation or works on related reservoirs.
Projects on International Waterways OP/BP 7.50	Yes	The policy is triggered since the Saigon River is an International waterway and the project activities are related to its basin and sub catchments. The team has consulted with LEGEN/LEGES teams on the applicability of this policy and based on preliminary assessment the project may qualify for the exception to notification to riparians. However, further discussions with LEGEN and RSS teams based on additional ESIA results will conclude if a Memo to RVP justifying such notification exception needs to be prepared by the team before appraisal.
Projects in Disputed Areas OP/BP 7.60	No	Not applicable to project interventions.

III. SAFEGUARD PREPARATION PLAN

A. Tentative target date for preparing the PAD Stage ISDS: 30-Nov-2015

B. Time frame for launching and completing the safeguard-related studies that may be needed.

The specific studies and their timing¹ should be specified in the PAD-stage ISDS:

- a. Preparation of project consolidatedESIAs relevant to all proposed investments will be completed by September 2015. Any proposed gaps in stand-alone national EIAs for component 2a will be addressed in consolidated project ESIA report(s) (including EMPs) required for project appraisal.
- b. Resettlement Action Plan including a due diligence as required for the new proposed project activities will be ready by Aug, 2015.
- c. A due diligence Report review for the land compensation and resettlement activities implemented under Gov. funded project components and linked activities will be completed by Aug. 2015.

IV. APPROVALS

¹ Reminder: The Bank's Disclosure Policy requires that safeguard-related documents be disclosed before appraisal (i) at the InfoShop and (ii) in country, at publicly accessible locations and in a form and language that are accessible to potentially affected persons.

Task Team Leader(s):	Name: Madhu Raghunath,Hung Duy Le	
<i>Approved By:</i>		
Regional Safeguards Coordinator:	Name: Peter Leonard (RSA)	Date: 24-Feb-2015
Practice Manager/ Manager:	Name: Abhas Kumar Jha (PMGR)	Date: 24-Feb-2015