

INTEGRATED SAFEGUARDS DATA SHEET

CONCEPT STAGE

Report No.: ISDSC1040

Date ISDS Prepared/Updated: 26-Nov-2014

Date ISDS Approved/Disclosed: 10-Dec-2014

I. BASIC INFORMATION

A. Basic Project Data

Country:	Vietnam	Project ID:	P152309
Project Name:	Vietnam Dam Rehabilitation and Safety Improvement Project (P152309)		
Task Team Leader:	Cuong Hung Pham		
Estimated Appraisal Date:	18-Aug-2015	Estimated Board Date:	30-Sep-2015
Managing Unit:	GWADR	Lending Instrument:	Investment Project Financing
Sector(s):	Irrigation and drainage (35%), Energy efficiency in Heat and Power (30%), Water supply (30%), Public administration- Water, sanitati on and flood protection (5%)		
Theme(s):	Natural disaster management (35%), Water resource management (30%), Rural services and infrastructure (25%), Infrastructure services for private sector development (10%)		
Financing (In USD Million)			
Total Project Cost:	550.00	Total Bank Financing:	500.00
Financing Gap:	0.00		
Financing Source			Amount
BORROWER/RECIPIENT			50.00
International Development Association (IDA)			500.00
Total			550.00
Environmental Category:	A - Full Assessment		
Is this a Repeater project?	No		

B. Project Objectives

17. The Project Development Objective is to support the implementation of the Government dam safety program by improving the safety of prioritized dams and reservoirs as well as to protect people and assets of the downstream communities.

C. Project Description

The project is intended to support the Government's dam safety program consisting of about 1,150 dams. This will be achieved by supporting both the structural safety of the dams and reservoirs themselves, along with the operational safety required to safeguard the populations at risk and downstream socio-economic infrastructure. This is directly aligned with the Government definition of dam safety outlined in Decree 72. The project will also support Government to ensure a more holistic, basin level integrated development planning approach to improve institutional coordination, future development and operational safety.

The selection of dams to be rehabilitated under the project will be based on an a priori agreed selection criteria aimed at prioritizing those interventions that address the risks within an explicit poverty and inequality framework. Prioritization will be based on the probability and impact of failure, both in terms of population impacted and socio economic infrastructure, including structural risks, hydrological risk, downstream hazard and economic benefits. These will be categorized further according to the level of readiness, to prioritize those within the set of dams ready for rehabilitation with detailed engineering designs and those requiring rehabilitation for which detailed designs are still required. Established procedures for prioritizing interventions developed by International Commission on Large Dams (ICOLD) and others – for example Portfolio Risk Assessment – will be applied. Building on lessons learned from Vietnam Water Resources Assistance Project this activity will establish clear criteria to measure the dam safety risks in the future, including (i) Probability of dam failure (structural risks based on height and storage volume); (ii) Impact of dam failure on downstream populations; (iii) Impact of dam failure on downstream infrastructure; (iv) Poverty context and impact; (v) Areas with ethnic minorities; and (vi) Readiness.

The project is designed to improve the safety of the dams and related works for about 500 dams in different sizes, as well as the safety of people and socio-economic infrastructure of the downstream communities as defined in Decree 72 governing the management of dam safety in Vietnam. This adopts the international convention in defining dams based on height and volume. Specifically, the Decree defines the following: (i) large dams from 15m high or with reservoir capacity of three million cubic meters or more; (ii) medium dams from 10m to 15m high or dams with reservoir capacity from one to three million cubic meters; and (iii) small dams from 5m to 10m high or dams with reservoir capacity between 50,000 and one million cubic meters.

The project would be an optimized mix of both structural and non-structural measures. Structural measures include rehabilitation and upgrading safety work of existing dams, including reshaping of slopes, strengthening and treatment of spillways, grouting for seepage control, structure stabilization, replacement of hydro-mechanical works and safety monitoring instrumentations, such as safety monitoring equipment. Such physical works represent the large part of the project budget (>80%). Non-structural dam safety activities, which are a critical and key component of the Bank-supported activities under the project, would include support to strengthen the legal and institutional framework; safety monitoring; operational procedures, operations and maintenance (O&M); and emergency preparedness plans. These measures also include an assessment of the resources to ensure sustained O&M and monitoring.

It is proposed that the project consist of four principle components.

Component 1: Dam Safety Rehabilitation (estimated cost = US\$400 million)

This component will improve dam safety through physical rehabilitation of existing infrastructure. This will include two different approaches required for the rehabilitation of large/medium and small,

community-managed dams. The difference between the two relates not only to the types of works and the regulatory framework, but also the institutional and implementation arrangements required to undertake such works and ensure their sustainable operation and maintenance. This would include support to (i) Detailed design, supervision and quality control of rehabilitation works for prioritized dams and associated infrastructure; (ii) rehabilitation works, including civil works, such as slope strengthening, structural stabilization, seepage control and spillway treatment, hydro-mechanical works and installation of hydrological and safety monitoring equipment; (iii) preparation of Operation and Maintenance Plans and Emergency Preparedness Plans; and (iv) adoption of standardized checklist for community-managed dams.

Component 2: Dam Safety Management and Planning (estimated cost = US\$90 million)

This component will improve the planning and operational framework for dam management to safeguard the people and socio-economic infrastructure within downstream communities. This would include provision of support to: (i) hydrological observation network and information systems; (ii) integrated development planning and operational coordination mechanisms between irrigation and hydropower reservoirs; (iii) regulatory and institutional support and strengthening on coordination mechanism including national dam policy on registration, regulation, inspection, safety compliance and penalties; (iv) technical specifications, safety standards and regulations to internationally-accepted levels; and (v) capacity enhancement, basin-wide integrated dam reservoir operation plans, emergency preparedness plan including dam break analysis, downstream flood mapping and benchmarking, awareness raising and evacuation drills for local communities living downstream.

Component 3: Project Management Support (estimated cost = US\$10 million)

This component will provide the necessary enabling environment to support project implementation. This will include support for the following: (i) Project Steering Committee composed of MARD, MoIT and MoNRE to coordinate all project interventions; (ii) Project Management Unit (PMU) within MARD to provide the necessary support services for timely and effective project implementation, including monitoring & evaluation, procurement, financial management, safeguard monitoring, etc.; (iii) Technical Assistance for beneficiary departments within MoIT and MoNRE to provide the necessary support services for timely and effective project implementation; (iv) Establishment and operations of a National Dam Safety Review Panel; (v) Independent audits of prioritized dams before and after rehabilitation; and (vi) Incremental operating costs for project related activities.

Component 4: Disaster Contingency (US\$ 0 million - no fixed allocation, but not to exceed 20% of the total project cost)

This component will improve the response capacity of the Government in case of an emergency relating to dam failure during project implementation. In the event of an emergency, this contingency component would facilitate rapid utilization of loan proceeds by minimizing the number of processing steps and modifying fiduciary and safeguard requirements so as to support rapid implementation. This component would allow expenditures to be made in accordance with the rapid response procedures of OP/BP 10.00 subject to the list of positive goods and services to be defined during project development. Such a component is not a substitution for insurance, and does not remove the need for construction covering dams included under the project. A generic positive list may be combined with a list of excluded goods that could trigger safeguard policies. This is intended to help ensure sufficient liquidity in the case of an emergency by financing the government's overall response to the emergency and providing some measure of protection to Government's fiscal accounts.

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

The project will support rehabilitation of prioritized dams of various sizes across Vietnam. The majority of these works are located in mountainous areas. Since the project is associated with rehabilitation of existing dams, there will be no major alterations in the existing land use patterns. The exact locations of the dams to be rehabilitated will be known during project preparation.

E. Borrowers Institutional Capacity for Safeguard Policies

The project will be implemented by the Ministry of Agriculture and Rural Development (MARD). MARD is experienced in implementing various World Bank-financed projects including dam safety elements, for example VWRAP closed in 2010, and has demonstrated reasonable implementation capacity. MARD also has an established Dam Safety Unit and is familiar with Bank procedures and policies including environmental and social safeguards. Further to that, the proposed project is also intended to strengthen the Borrower capacity in handling environmental and social aspects of dam rehabilitation, operations and maintenance.

F. Environmental and Social Safeguards Specialists on the Team

Tuan Anh Le (GSURR)

II. SAFEGUARD POLICIES THAT MIGHT APPLY

Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/BP 4.01	Yes	The project will support the physical rehabilitation of existing dams, mostly built during the 1980s and 1990s, which have deteriorated over time. Deterioration is due to a range of reasons including initial construction quality, operation and maintenance and so on. A large majority of the estimated 500 dams to be rehabilitated under the project are earth-filled dams and considered small dams with height of less than 15m and design volume of less than 3 million cubic meters (MCM). Approximately 10% of the dams to be rehabilitated are large dams which are over 15m high, or between 5 and 15m with reservoir storage in excess of 3 MCM in designed volume. The small dams are being operated at community and district levels. Large dams are managed and operated at provincial levels through Irrigation Management Companies which generally have good technical capacity. The Bank will provide a concessional credit amount up to US\$500 million for activities envisaged under this project. The Government of Vietnam will provide approximately US\$50 million to pay for preparatory works including land acquisition, compensation following the agreed resettlement policy framework. If national dam rehabilitation program sub-projects are co-financed by GoV or other sources, WB

		<p>safeguard policies will apply, regardless of the source of financing.</p> <p>The project will not support significant structural modifications or expansion, such as increases in the heights of dams and/or significant changes in the capacity and operation of reservoirs. Rehabilitation under Component 1 is expected to include the following types of interventions: (a) reshaping of main and auxiliary dams; (b) slope stabilization, using concrete slabs or stone paving combined with greening measures; (c) strengthening or expansion of existing spillways to increase the discharge capacity; (d) refurbishment of existing intake structures, (e) replacement of mechanical and electrical systems at Intakes and spillways; (f) grouting or earthworks for seepage control; and (g) improvement of the existing access roads.</p> <p>The socio-economic and environmental impacts of the project during operation phase are expected to be largely positive as the rehabilitation works and improved operating procedures would reduce flood risk downstream, both from large water releases due to poor operation and dam failure, and potentially improve overall management of water resources within the basin. The potential social and environmental impacts of Component 2 are minimal and will be managed by incorporating social and environmental requirements into institutional studies, improved operational procedures and technical assistance. However, dam rehabilitation under Component 1 has some potential negative impacts from pre-construction and construction activities. Potential risks include (i) ground disturbance, loss or damage to vegetation cover due to site clearance for camp and work sites; (ii) increased level of dust and noise, solid waste and wastewater generated and discharged from construction sites, site office and workers camps; (iii) increased erosion and sediment discharge and disruption to local drainage (for example due to open borrow pits and disposal sites); (iv) localized health and safety risks for workers and communities in the vicinity of the worksites; and (vi) temporary disturbance to local communities.</p> <p>Rehabilitation of existing dams may also raise some</p>
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		<p>social and environmental legacy issues related to the development of the original dams/reservoirs, such as resettlement and impacts on areas of environmental or cultural/historical importance.</p> <p>The proposed Project has been classified as Environmental Category A by the World Bank due to the complexity of the potential impacts, issues and risks mentioned above. The Project will need to comply with the World Bank Safeguard Policies and Vietnamese environmental management legislation. During project preparation, the following safeguard documents will be prepared and submitted for the Bank to review and clear:</p> <ul style="list-style-type: none">• Environmental and Social Impact Assessment Reports (ESIA) for the subprojects implemented under Component 1 in the first year. The ESIA will include potential social and environmental impacts screening, assessment, mitigation measures, institutional arrangement, monitoring and reporting requirements. etc.• An Environmental and Social Management Framework (ESMF) to identify specific instruments that will be prepared during project implementation based on a typology of subprojects. For all subprojects, the design process will include a screening and review of possible social and environmental safeguard legacy issues and propose necessary and feasible interventions. As such, the ESMF will include provisions to identify and address possible legacy issues, including: (i) screening criteria; (ii) potential legacy issues; and, (iii) whether and how the legacy issues can be addressed, depending on the type and range of identified legacy issues. <p>Public consultations will be carried out during the preparation of the above-mentioned safeguard tools. The Bank will review and comment on the draft safeguard reports. The Final Draft safeguard reports in the English and Vietnamese languages will be disclosed by the Bank, and summary of safeguard tools presented in suitable language will be disclosed locally before project appraisal. Safeguard documents prepared during project implementation will also meet the Bank's requirements on public consultations and information disclosure.</p>
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Natural Habitats OP/BP 4.04	Yes	The project physical activities would only work on existing dams and are not expected to lead to any impacts on critical or semi-critical natural habitats. The locations of subproject are not known at this stage. The ESIA for each sub-project will scope, screen and assess potential impacts to natural habitats according to the ESMF. No separate instrument is required for natural habitats. Adverse impacts on natural habitats will be avoided or mitigated through appropriate management measures.
Forests OP/BP 4.36	TBD	The proposed project will not have any impact on the health and quality of forests, the rights and welfare of people and their level of dependence upon or interaction with forests; or the management, protection, or utilization of natural forests or plantations. Integrated watershed management is potentially supported but is not expected to impact natural forests. As sites are not yet identified the policy is set as 'TBD' at the concept stage with a caveat that the determination of whether this is triggered or not will be done during preparation. Sub-project ESIA's will scope and screen for this policy.
Pest Management OP 4.09	No	The project is intended to improve the safety of prioritized dams and reservoirs in order to protect the population and assets of downstream communities from the risk of dam failure. Irrigation expansion or agricultural water supply is not an aim of the project. The project will not finance any procurement of fertilizers and pesticides. Accordingly, the policy has not been triggered.
Physical Cultural Resources OP/BP 4.11	Yes	Some dams may have cultural property associated with them that may be impacted by dam strengthening activities. A Cultural Property Action Framework would be developed as part of the ESMF to safeguard these properties during rehabilitation. This safeguard policy has been triggered as advance precautionary measure.
Indigenous Peoples OP/BP 4.10	Yes	The project will support rehabilitation/ upgrading of several reservoirs/dams of various sizes across Vietnam. Since most of these works are located in the upstream/ mountainous areas where ethnic minority peoples may live, this policy is triggered. A social assessment (SA) as an integral part of the ESIA mentioned in OP4.01 will be carried out in a

		<p>sample of potential candidate dams, including dams where ethnic minority communities reside, to address the requirements of OP4.01, OP4.10 and OP4.12. The SA will carry out a screening of potential impacts (both positive and negative), disseminate project information among ethnic minority communities, carry out public consultations and incorporate their overall perceptions, attitudes and recommendations into project development. The SA will confirm whether there is broad support from local ethnic minority communities for the project. Based on the SA, the project will prepare an Ethnic Minority Policy Framework (EMPF). The EMPF will guide preparation of Ethnic Minority Development Plans (EMDP) for specific subprojects. Where applicable, EMDP(s) for identified subprojects will be prepared prior to project appraisal for subproject(s) scheduled for implementation in the first year of the project.</p>
Involuntary Resettlement OP/ BP 4.12	Yes	<p>The Project will require land acquisition (permanent and temporary) for the rehabilitation of the selected dams. These activities may affect houses, assets, crops, perennial trees, graves and livelihood of the households living in the vicinity of the works. However, the magnitude of adverse impact (as a result of land acquisition) is anticipated to be small given that no new construction is planned and the relatively small scale of works. A Resettlement Policy Framework (RPF) will be developed to guide preparation of Resettlement Action Plans (RAP) for subprojects during project implementation. RAPs for subprojects to be implemented in the first year, will be prepared prior to project appraisal. The design process for all subprojects will include a screening and review of possible social safeguard legacy issues and propose necessary and feasible interventions – as specified above.</p>
Safety of Dams OP/BP 4.37	Yes	<p>The project will not finance construction of any new dams or significant changes in dam/reservoir structure and capacity. This policy is triggered due to the planned rehabilitation of existing dams, including large dams. It is therefore mandatory to engage independent dam specialists to (a) inspect and evaluate the safety status of the existing dam, its appurtenances, and its performance history; (b) review and evaluate the owner's procedures for operations and maintenance; and (c) provide written</p>

		report of findings and recommendations for any remedial work or safety-related measures necessary to upgrade the existing dam to an acceptable standard of safety. Policy and practice relating to dam safety needs to meet international benchmarks, such as those laid out by ICOLD and the World Bank regulatory frameworks for dam safety. These measures are designed into the project, which includes the establishment of a national dam safety review panel (DSRP). The project will also establish an independent Panel of dam safety Experts (PoE) including international expertise who will carry out independent review of dam safety reports and proposed mitigation measures. This PoE will work closely with the DSRP to ensure the technical integrity of investment interventions.
Projects on International Waterways OP/BP 7.50	Yes	There are six transboundary river basins in the country; however Vietnam is an upstream riparian only in the Sesan-Srepok basin – a tributary of the Mekong, upstream of Cambodia, and the Bang Giang-Ky Cung basin, upstream of China. It is expected that some of the dams will be located on international river basins and therefore the policy is triggered, however there are not expected to be transboundary impacts as project activities are limited to rehabilitation. A waiver for notification will therefore be sought in accordance with the Operational Policy.
Projects in Disputed Areas OP/ BP 7.60	No	The project is not located in any disputed areas.

III. SAFEGUARD PREPARATION PLAN

A. Tentative target date for preparing the PAD Stage ISDS: 13-Feb-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:

- Launching ESMF, RPF and other framework documents: 12-Dec-2014
- Launching RAP, ESIA and other sub project documents: 05-Feb-2015
- Completing and disclosing all safeguard documents: 15-May-2015

IV. APPROVALS

Task Team Leader:	Name: Cuong Hung Pham	
<i>Approved By:</i>		
Regional Safeguards Coordinator:	Name: Josefo Tuyor (RSA)	Date: 26-Nov-2014

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.

Practice Manager/ Manager:	Name: Ousmane Dione (PMGR)	Date: 10-Dec-2014
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