

# INTEGRATED SAFEGUARDS DATA SHEET CONCEPT STAGE

**Report No.:** ISDSC5838

**Date ISDS Prepared/Updated:** 09-Apr-2014

**Date ISDS Approved/Disclosed:** 12-Apr-2014

## I. BASIC INFORMATION

### A. Basic Project Data

<b>Country:</b>	Myanmar	<b>Project ID:</b>	P146482
<b>Project Name:</b>	Ayeyarwady Integrated River Basin Management Project (P146482)		
<b>Task Team Leader:</b>	Julia M. Fraser		
<b>Estimated Appraisal Date:</b>	01-Jul-2014	<b>Estimated Board Date:</b>	11-Dec-2014
<b>Managing Unit:</b>	EASTS	<b>Lending Instrument:</b>	Investment Project Financing
<b>Sector(s):</b>	General water, sanitation and flood protection sector (40%), Flood protection (25%), Ports, waterways and shipping (25%), Public administration- Water, sanitation and flood protection (10%)		
<b>Theme(s):</b>	Water resource management (60%), Natural disaster management (20%), Environmental policies and institutions (20%)		
<b>Financing (In USD Million)</b>			
<b>Total Project Cost:</b>	100.00	<b>Total Bank Financing:</b>	100.00
<b>Financing Gap:</b>	0.00		
<b>Financing Source</b>			<b>Amount</b>
BORROWER/RECIPIENT			0.00
International Development Association (IDA)			100.00
Total			100.00
<b>Environmental Category:</b>	A - Full Assessment		
<b>Is this a Repeater project?</b>	No		

### B. Project Objectives

The objective of the program (the Series of Projects) will be to strengthen integrated, climate resilient management and development of the Ayeyarwady River Basin and national water resources.

The objective of this first phase project is to develop the institutions and tools needed to implement

integrated river basin management, and deliver related livelihoods benefits from enhanced navigation and hydromet warning and advisory services.

### **C. Project Description**

A multi-phased approach (Series of Projects) is proposed that will focus, in the first phase, on developing the institutions and tools needed to enable informed decision making and implement integrated river basin management on the Ayeyarwady, while immediately enhancing the river's productivity with "no/low regrets" investments in the hydro-meteorological observation system and services (to support agricultural productivity and water-related disaster risk management) and in navigation enhancements (to promote transport) on the Ayeyarwady. The project design includes three inter-related investment components.

#### **Component 1: Water Resource Management Institutions, Decision Support Systems & Capacity Building**

##### **1.1 Institutional Development**

This sub-component will help to (a) establish and deliver the mandates of the newly created NWRC Secretariat, Hydro-Informatics Center and Expert Group, (b) undertake institutional, legal and regulatory reviews and reform, (c) create a stakeholder forum and promote communications and outreach, and (d) support capacity building.

##### **1.2 Ayeyarwady Integrated River Basin Planning Framework**

This sub-component will provide immediate guidance on investment options while also developing the tools and processes needed to ensure the government has ongoing capacity to plan and manage its water resources. The sub-component will include (i) strategic basin-wide analyses (i.e., groundwater and sediment) to ensure adequate information is available on key river basin resources, constraints and dynamics, (ii) development of a set of analytic tools to support decision making, (iii) a consultative process to ensure that the planning exercise leverages knowledge in the stakeholder community and responds to stakeholders concerns, and (iv) an integrated river basin master planning framework report that will include inter alia a strategic environmental and social assessment, and deliver analysis and recommendations on a range of investment scenarios (proposed investments would still require detailed project level environmental and social assessments) as well as proposed institutional arrangements for ongoing basin planning and management in Myanmar. The sub-component will also include resources to prepare potential investments for financing under a second phase of the program.

#### **Component 2. Hydromet Observation and Information Systems Modernization**

##### **2.1 Institutional and regulatory strengthening, capacity building and implementation support of DMH**

To design and operate a modernized hydromet system and deliver high quality services to users, the Department of Meteorology and Hydrology (DMH) will require technical assistance in systems design and integration, institutional development, capacity building and training.

##### **2.2 Modernization of the Observation Infrastructure, Data Management Systems and Forecasting**

The number of observation stations in Myanmar is significantly below WMO recommendations for all types of observations, and observation systems, communications, forecasting capabilities and data management systems are in general rudimentary, unreliable and fragmented. These systems will be expanded and upgraded, and a sustainable water quality monitoring system will be designed and piloted.

### 2.3 Enhancement of the Service Delivery System of DMH

Traditionally, departments of meteorology and hydrology have focused on data gathering rather than delivering information services to users. This sub-component will support DMH in strengthening its service orientation in order to ensure the benefits of the project's investment are realized across the range of stakeholders. This will likely include (a) introduction of a Public Weather and Hydrological Service, (b) support for DRM operations including expansion of "end-to-end" early warning systems, (c) improvement of service delivery to communities including introduction of mobile applications, and (d) the creation of the National Framework of Climate Services.

## Component 3. Navigation Enhancement on the Ayeyarwady River

### 3.1 Navigation Aids

Existing navigation aids are rudimentary and useful only for daytime navigation. Providing modern navigation aids and night navigation aids on the Ayeyarwady River from Mandalay to Yangon will enhance safety and facilitate both inland water transport and river tourism. This sub-component will include design and installation of navigation aids as well as related training, communications and awareness raising.

### 3.2 Channel Improvements

Channel improvements will be undertaken to ensure transport safety and efficiency along the busiest stretch of the Ayeyarwady system which lies between Mandalay and Nyaung-U. The present draught restriction during the dry seasons is just 1.5 meters. Draught improvements will allow vessels to pass and to be loaded more heavily during dry seasons, increasing the efficiency of passenger and cargo transport.

### 3.3 Ayeyarwady River Navigation Strategy

To explore the potential for appropriate river training works from Mandalay to Yangon, a channel design study will be undertaken. The study will model the morphology and sediment transport and address environmental and social implications.

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

The project will be located primarily within the Ayeyarwady River Basin. The basin is home to an extraordinary range of ecosystems, and flora and fauna, including the charismatic and endangered species such as elephants, tigers, leopards, sea turtles, crocodiles, waterfowl and migratory birds, and the Irrawaddy dolphins. It is also home to diverse groups of ethnic minorities who are dependent on the river for livelihoods and subsistence.

The Ayeyarwady River is an international river shared between China, India and Myanmar. It is fed by two tributaries, the Daying and the Jiang, both originating from China, with the latter tributary fed by a sub-tributary originating within India. The river bisects Myanmar from north to south, and empties through a nine-armed delta into the Bay of Bengal. Over 90% of the basin land area and population are located within Myanmar. While the Ayeyarwady tributaries host a number of multipurpose dams, the mainstream has no significant structures on it.

The project impact area is expected to encompass the Ayeyarwady Basin where water resources management will be strengthened. Works that will be carried out to modernize Myanmar's hydromet observation and information systems (Component 2) are expected to be confined to improvements of existing stations and facilities. Civil works to enhance the channel capacity of the Ayeyarwady (Component 3) are expected to be confined to the river bed.

### **E. Borrowers Institutional Capacity for Safeguard Policies**

None of the implementing agencies have experience with the WBG safeguard policies and procedures, nor do they appear to have the capacity to implement and monitor them. In order to appropriately address the capacity challenges, a capacity assessment of the existing structure and systems will be carried out during project preparation. If needed, consultants will be hired under the project to support the implementation and monitoring of safeguard policies and procedures.

### **F. Environmental and Social Safeguards Specialists on the Team**

Pamornrat Tansanguanwong (EASTS)

Ruxandra Maria Floroiu (EASER)

Satoshi Ishihara (EASTS)

## **II. SAFEGUARD POLICIES THAT MIGHT APPLY**

<b>Safeguard Policies</b>	<b>Triggered?</b>	<b>Explanation (Optional)</b>
Environmental Assessment OP/ BP 4.01	Yes	<p>The project supports a diverse set of activities related to sustainable environmental management in Myanmar, including building a water resources information management system, strengthening the collection and analysis of hydro-meteorological data, designing and piloting a water quality monitoring system, building institutional capacity for water resources management, undertaking strategic studies and planning, and strengthening project management and emergency response.</p> <p>The project will also support the establishment of a Decisions Support System to provide the newly formed National Water Resources Committee with the information needed to better assess the complex impacts (including environment and social aspects) and tradeoffs of proposed developments on the Ayeyarwady</p>

	<p>River.</p> <p>The project may support the preparation of (pre) feasibility studies for investments that could be financed in future phases of the proposed series of projects. These potential future investments (i.e., in irrigation, hydropower, navigation, delta management, municipal water supply or wastewater management systems) could have adverse environmental and social impacts. The Terms of References (TORs) of these studies will require consideration of environmental and social safeguards provisions in line with relevant World Bank operational policies. In case the river basin planning process identifies priority investments for which feasibility studies and/or designs will be supported by the project, ESIA's will also be prepared for such investments according to the ESMF.</p> <p>River channel enhancement works are planned under the project to increase the 'least available depth' of the river during the low flow season; currently only small or lightly loaded vessels are able to pass through several sections of the busiest stretch of the Ayeyarwady (from Mandalay to Nyaung Oo) during the low flow season. The work is likely to involve the construction of small groins within the riverbed that will serve to concentrate the dry season flow into a narrower and hence deeper section of the river bed in order to facilitate safe ship passage. The impact from the construction is thus expected to be confined to the river bed. Access to the river and patterns of seasonal flooding should not be affected. Unexploded ordinance (UXO) clearance works are not expected, however, if required they will be implemented in line with specific international standards of operations. During implementation, before channel enhancements begin, a final feasibility design and ESIA will be carried out (see activity 3.2).</p> <p>The Project is proposed as category A for Environmental Assessment due to its spatial extent, its focus on river basin planning and</p>
--	--

	<p>civil works to be carried out under Components 2 and 3. To enhance the project benefits and to address the potential environment and social impacts, the following measures will be taken:</p> <p>1. During project preparation, the government will develop an Environment and Social Management Framework (ESMF) including an Environmental Management Plan Framework that will guide the screening and assessment of environment and social impacts of various activities including the feasibility studies of priority investments (Component 1), the upgrading of hydromet stations (Component 2), and the channel enhancement works (Component 3). Also, an SA will be developed as part of project preparation to identify and explain both potential positive and negative impacts of the project and to provide input into the project design.</p> <p>The ESMF will specify the type, level and depth of environmental and social impact assessments (ESIAs or EMPs) required for each of the project activities based on the results of the screening and the relevant impacts. The ESMF and the SA will meet the Bank's requirements for public consultation (minimum two meetings) and disclosure before project appraisal in country in local language and through the InfoShop in English.</p> <p>2. During implementation, the TORs for proposed investments will include detailed guidelines for ESIAs/EMPs preparation to ensure safeguard issues and measures are mainstreamed into the activity design. In addition, any future investment projects identified during the course of the basin planning framework exercises (Component 1) will also integrate ESIA and relevant safeguards tools into their designs and TORs. All TORs will be shared with the Regional Safeguards Secretariat for review and inputs to ensure timely and efficient advice that is consistent with the Bank's safeguard policies.</p>
--	--

		<p>3. Also during implementation, a Strategic Environmental and Social Assessment (SESA) will be prepared to support the development of a long-term basin-wide perspective and institutional assessment. The ToRs for this SESA will include environmental and social safeguard provisions and will be cleared by RSS.</p> <p>4. Finally, during implementation the safeguard capacity of the institutions involved in river basin management will be enhanced through trainings and learning-by-doing activities.</p>
Natural Habitats OP/BP 4.04	Yes	<p>This policy is triggered primarily because of the positive impact that is anticipated as a consequence of better management of the river's water resources. At the same time, however, some project activities may have negative impacts on natural habitats, for example channel enhancement works or works associated with the upgrading of the hydromet system could potentially affect aquatic and riparian habitats.</p> <p>The ESMF will be used to screen potential project impacts and provide guidance on how they should be addressed.</p>
Forests OP/BP 4.36	No	This policy is not triggered because no activities are anticipated in forest areas.
Pest Management OP 4.09	No	The project activities are not expected to use pesticides, nor to lead to increased usage of pesticides.
Physical Cultural Resources OP/BP 4.11	Yes	<p>The project will carry out minor civil works under the channel enhancements and hydromet modernization sub-components. The channel enhancement activities will be carried out within the river bed and hydromet modernization activities will upgrade existing facilities. As a consequence, no PCRs impacts are anticipated. Nonetheless, given Myanmar's rich cultural heritage there is a possibility that PCRs could be unearthed or affected. Thus, this policy is triggered.</p> <p>During preparation, the ESMF will include a PCRs assessment and mitigation guidelines including "Chance Finds Procedures". If</p>

		appropriate, a PCR's Management Plan will be developed to provide detailed mitigation measures.
Indigenous Peoples OP/BP 4.10	Yes	<p>The Ayeyarwady basin is home to diverse groups of ethnic minorities who are dependent on the river for livelihoods and subsistence. Overall, the project is expected to generate a net positive impact on livelihoods. However, some activities associated with the river channel enhancement work (Component 3) could temporarily disrupt livelihoods activities along the banks of the Ayeyarwady River. Thus, this policy is triggered.</p> <p>During preparation, an ESMF will be developed to ensure protections for ethnic minorities and project affected people, as well as to outline steps to conduct free, prior and informed consultations. An Indigenous Peoples Policy Framework will be developed as part of the ESMF to guide the design of mitigation measures in the event that project activities affect ethnic minorities. The project preparation process will involve consultations with a sample of ethnic minorities and/or ethnic minority organizations as part of the SA and to inform the preparation of the IPPF embedded in the ESMF.</p> <p>During implementation, Indigenous Peoples Plans (IPP) will be developed for all relevant project activities. In addition during implementation, as mentioned above, a basin-wide SESA will be conducted which will contribute to the project's efforts to create stakeholder forums and promote communications and outreach.</p>
Involuntary Resettlement OP/BP 4.12	Yes	As mentioned, the overall project impact is expected to be positive. However, during construction of the channel enhancements some people who use the Ayeyarwady River banks may temporarily be affected. Further, under the potential investments to be prepared (Sub-component 1.2) there could be future land and other property loss. This policy is therefore triggered.



		During preparation, an ESMF will be developed and will include a simple Resettlement Policy Framework (RPF) which can be used to address any land acquisition and voluntary land donation issues that may arise.
Safety of Dams OP/BP 4.37	No	The Project will not finance any activities related to the construction of dams nor affect operations of existing dams or affiliated reservoirs.
Projects on International Waterways OP/BP 7.50	Yes	The policy is triggered as the proposed project investments are located in the Ayeyarwady River Basin. The Ayeyarwady River is an international waterway, fed by two tributaries originating within China and India, and flowing into the Andaman Sea which is connected to the Indian Ocean. However, the planned investments will not involve any adverse impacts on the quality and quantity of waters in the Ayeyarwady River. Thus, the proposed project falls within the exception to the riparian notification requirement. A Memo to RVP requesting agreement on the exception to this notification requirement will be prepared by the team by project appraisal.
Projects in Disputed Areas OP/BP 7.60	No	No activities are planned in any disputed areas.

### III. SAFEGUARD PREPARATION PLAN

**A. Tentative target date for preparing the PAD Stage ISDS:** 15-May-2014

**B. Time frame for launching and completing the safeguard-related studies that may be needed. The specific studies and their timing<sup>1</sup> should be specified in the PAD-stage ISDS:**

An ESMF will be produced before project appraisal. A minimum of two public consultations will take place, one at the level of ToRs development and another one when a draft ESMF is available for discussions. The ESMF will include an Environmental and Social Management Plan Framework, an RPF and a IPPF.

### IV. APPROVALS

Task Team Leader:	Name: Julia M. Fraser	
<b>Approved By:</b>		
Regional Safeguards Coordinator:	Name: Peter Leonard (RSA)	Date: 11-Apr-2014
Sector Manager:	Name: Julia M. Fraser (SM)	Date: 12-Apr-2014

<sup>1</sup> 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.