

 Early Warning System

WB-P146482

Ayeyarwady Integrated River Basin Management Project



### Quick Facts

<b>Countries</b>	Myanmar
<b>Financial Institutions</b>	World Bank (WB)
<b>Status</b>	Active
<b>Bank Risk Rating</b>	A
<b>Voting Date</b>	2014-12-09
<b>Borrower</b>	Government of Myanmar DEPT OF WATER RESOURCES & RIVER IMPRV
<b>Sectors</b>	Infrastructure, Water and Sanitation
<b>Potential Rights Impacts</b>	Cultural Rights, Healthy Environment, Housing & Property, Indigenous Peoples, Labor & Livelihood, Right to Food, Right to Water
<b>Investment Type(s)</b>	Loan
<b>Investment Amount (USD)</b>	\$ 100.00 million
<b>Project Cost (USD)</b>	\$ 100.00 million



### Project Description

World Bank's investment consists of a series of projects that are aimed at developing the institutions and tools needed to enable informed decision making and implement integrated river basin management on the Ayeyarwady [also known as Irrawady]. The project consists of three components.

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

The investment activity will involve the use of resources for the following activities:

- Undertaking institutional, legal and regulatory reviews and reforms and creating a stakeholder forum for promoting communications and outreach
- Supporting capacity building
- Conducting strategic basin-wide analyses (i.e., groundwater and sediment) to ensure adequate information is available on key river basin resources, constraints and dynamics
- Developing a set of analytic tools to support decision making
- Creating a consultative process to ensure that the planning exercise makes use of existing knowledge in the stakeholder community and responds to stakeholders concerns
- Devising an integrated river basin master planning framework report that will include, among other things, a strategic environmental and social assessment, and delivering analysis and recommendations on a range of investment scenarios as well as proposed institutional arrangements for ongoing basin planning and management in Myanmar;
- Preparing for potential investments for financing under a second phase of the program

World Bank notes however, that any investments proposed as a result of this component would still require detailed project level environmental and social assessments.

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

The investment activity will involve the use of resources for the following activities:

- Designing and operating a modernized hydro-meteorological or "hydromet" system and delivering services to users. To this end, the Department of Meteorology and Hydrology (DMH) will require technical assistance in systems design and integration, institutional development, capacity building and training.
- Expanding and upgrading observation systems, as 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. Additionally, a sustainable water quality monitoring system will be designed and piloted.
- Supporting 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*

The investment activity will involve the use of resources for the following activities:

- Providing modern navigation aids and night navigation aids on the Ayeyarwady River from Mandalay to Yangon, as existing navigation aids are rudimentary and useful only for daytime navigation. This activity will include design and installation of navigation aids as well as related training, communications and awareness raising.



## Early Warning System Project Analysis

### RISK CATEGORIZATION

As much of the expansion and growth of Myanmar's economy in its current transitional phase relates directly to water (i.e., enhanced production and trade in agricultural products, hydropower generation, and the expansion of national and regional green transport systems via rivers and ports), the anticipated growth in cities, industry, and cultural/eco-tourism will pose trade-offs for water use, and potentially impact water quality and therefore human and ecosystem health. The World Bank therefore categorizes the current investment project as a Category A project, requiring full environmental assessment due to its spatial extent, its focus on river basin planning and civil works to be carried out under Components 2 and 3. According to the World Bank, a Category A project is likely to have significant adverse environmental impacts that are sensitive, diverse, or unprecedented.

### APPLICABLE SOCIAL AND ENVIRONMENTAL STANDARDS

#### Environmental Assessment OP/BP 4.01

World Bank documentation states that Environmental Assessment OP/BP 4.01 is triggered because the project supports a diverse set of activities related to sustainable environmental management in Myanmar. Specifically, [t]he 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.

#### Natural Habitats OP/BP 4.04

World Bank documentation states that Natural Habitats OP/BP 4.04 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. World Bank cites as an example that channel enhancement works or works associated with the upgrading of the hydromet system could potentially affect aquatic and riparian habitats.

#### Physical Cultural Resources OP/BP 4.11

World Bank documentation states that 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 PCR 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.

#### Indigenous Peoples OP/BP 4.10

World Bank documentation states that [t]he Ayeyarwady basin is home to diverse groups of ethnic minorities who are dependent on the river for livelihoods and subsistence. As a result, 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.

#### Involuntary Resettlement OP/BP 4.12

World Bank documentation states that 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 (Subcomponent 1.2) there could be future land and other property loss, thus triggering Involuntary Resettlement OP/BP 4.12.

#### Projects on International Waterways OP/BP 7.50

World Bank documentation states that the Project on International Waterways OP/BP 7.50 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.



## People Affected By This Project

### ENVIRONMENTAL AND HUMAN RIGHTS RISK ASSESSMENT

#### LABOR RIGHTS

Although the World Bank does not specifically flag labor rights as a source of concern in its investment documents, Myanmar has a long history of forced labour issues with respect to development projects. According to the Human Rights Documentation Unit of the National Coalition Government of the Union of Burma, the ILO and the UN have both expressed concern regarding the continued widespread use of forced labor in Burma, particularly in ethnic border areas. Development project sites are of particular concern as they typically involve an increase in the number of army battalions in an area. An article titled, Under the Iron Thumb: Forced Labor in Myanmar reports that [t]he issue of forced labor is of particular concern. Forced labor is employed primarily in development projects, agricultural enterprises, and the military. It is used to impose collective punishment on civilians, to build highly profitable development that strengthens military rule, and to allow the military access and logistical support in the most remote regions of insurgent-occupied territories. Although forced labour is outlawed in Myanmar, a recent report by the Karen Human Rights Groups noted that in several recent development projects in Myanmar, [v]illagers described forced labour at project sites, suggesting that the practice still exists in some areas.

The following questions may be relevant to determining whether you or your community's labor rights have been adversely affected by the investment project:

- Can all members of your community apply for jobs in the context of the investment project?
- Are your wages sufficient to meet your basic needs and those of your family?
- Have you been forced to work against your will or without adequate compensation?
- Are your working conditions safe and healthy?
- Are there children under the age of 15 working on any aspect of this development project?
- What opportunities (legal or other) are available if you consider that your working conditions are not just and favorable?

#### RIGHT TO WATER

Degradation of the quality of the Ayeyarwady River has been well documented. The 2011 Universal Periodic Review reported that [m]ore than 25 percent of the population lacked access to safe drinking water, and recommended that Myanmar ensure access by all children, in particular those in remote and rural areas, to safe drinking water and adequate sanitation systems. In a recent report by Irrawady.com, it was stated that, as a result, [p]eople living along the riverbank face a scarcity of clean water. As the project involves substantial work on the structure of the river, it may impede local communities' access to the river, and thus their right to water.

The following sources may be relevant to determining whether you or your community has suffered a violation of your right to water as a result of the investment project:

- Has your access to good, affordable, clean and safe water in sufficient quantity been affected since the beginning of the investment project?
- Has your access to appropriate sanitation facilities been adversely affected by the project?
- Does Myanmar have a policy or program in place to ensure that the project activities do not affect people's right to water?
- What opportunities (legal or other) are available if you feel that your right to water has been affected?

#### RIGHT TO FOOD

According to Aquastat's 2011 Survey of Myanmar, [t]he population of Myanmar is estimated to reach 86 million by 2025, against 50 million at present. Increasingly food will be necessary for the country's growing population. Agriculture is an important source of food security, as 18.6 million people, or 67% of the economically active population in 2009 worked in the



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### Investment Description

- World Bank (WB)

The total project is a USD \$100 million investment.



## Contact Information

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## CONSULTATION PROCESS

There have yet to be any consultations due to the project's current status in the concept phase of planning. However, World Bank documentation states that "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 environmental 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, a social assessment 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."

World Bank documentation further provides that "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."

## ACCOUNTABILITY MECHANISM OF WORLD BANK

The World Bank Inspection Panel is the independent complaint mechanism and fact-finding body for people who believe they are likely to be, or have been, adversely affected by a World Bank-financed project. If you submit a complaint to the Inspection Panel, they may investigate to assess whether the World Bank is following its own policies and procedures for preventing harm to people or the environment. You can contact the Inspection Panel or submit a complaint by emailing [ipanel@worldbank.org](mailto:ipanel@worldbank.org). You can learn more about the Inspection Panel and how to file a complaint at: <http://ewebapps.worldbank.org/apps/ip/Pages/Home.aspx>.



### Bank Documents

- [Integrated Safeguards Data Sheet \(Appraisal Stage\) - Ayeyarwady Integrated River Basin Management Pr](#) [Original Source]
- [Integrated Safeguards Data Sheet \(Concept Stage\) - Ayeyarwady Integrated River Basin Management Proj](#) [Original Source]
- [Myanmar - Ayeyarwady Integrated River basin Management \(AIRBM\) Project : procurement plan \(English\)](#) [Original Source]
- [Myanmar - Ayeyarwady Integrated River basin Management Project \(AIRBM\) : procurement plan \(English\)](#) [Original Source]
- [Myanmar - Ayeyarwady Integrated River Basin Management Project \(AIRBM\) : procurement plan \(English\)](#) [Original Source]
- [Myanmar - Ayeyarwady Integrated River Basin Management Project \(English\)](#) [Original Source]
- [Myanmar - Ayeyarwady Integrated River Basin Management Project : chair summary \(English\)](#) [Original Source]
- [Myanmar - Ayeyarwady Integrated River Basin Management Project : environmental and social management](#) [Original Source]
- [Myanmar - Ayeyarwady Integrated River Basin Management Project : environmental and social management](#) [Original Source]
- [Myanmar - Ayeyarwady Integrated River Basin Management Project : environmental and social management](#) [Original Source]
- [Myanmar - Ayeyarwady Integrated River Basin Management Project : environmental assessment \(Vol. 2\) :](#) [Original Source]
- [Myanmar - Ayeyarwady Integrated River Basin Management Project : environmental assessment : Environm](#) [Original Source]
- [Myanmar - Ayeyarwady Integrated River Basin Management Project : indigenous peoples plan \(Vol. 2\) \(E](#) [Original Source]
- [Myanmar - Ayeyarwady Integrated River Basin Management Project : indigenous peoples plan : Executive](#) [Original Source]
- [Myanmar - Ayeyarwady Integrated River Basin Management Project : P146482 - Implementation Status Res](#) [Original Source]
- [Myanmar - Ayeyarwady Integrated River Basin Management Project : P146482 - Implementation Status Res](#) [Original Source]
- [Myanmar - Ayeyarwady Integrated River Basin Management Project : P146482 - Implementation Status Res](#) [Original Source]
- [Myanmar - Ayeyarwady Integrated River Basin Management Project : procurement plan \(English\)](#) [Original Source]
- [Myanmar - Ayeyarwady Integrated River Basin Management Project : resettlement plan \(Vol. 2\) : Final](#) [Original Source]
- [Myanmar - Ayeyarwady Integrated River Basin Management Project : resettlement plan : Executive summa](#) [Original Source]
- [Official Documents- Disbursement Letter for Credit 5559-MM \(Closing Package\) \(English\)](#) [Original Source]
- [Official Documents- Financing Agreement for Credit 5559-MM \(Closing Package\) \(English\)](#) [Original Source]
- [Official Documents- Recommendation of Statutory Committee for Credit 5559-MM \(Closing Package\) \(Engl](#) [Original Source]
- [Official Documents- Supplemental Letter Ref. Financial Data for Credit 5559-MM \(Closing Package\) \(En](#) [Original Source]





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### Other Related Projects

- WB-P173265 Additional Financing - Ayeyarwady Integrated River Basin Management Project