

**INTEGRATED SAFEGUARDS DATA SHEET
APPRAISAL STAGE**

Report No.: ISDSA15056

Date ISDS Prepared/Updated: 12-Aug-2016

Date ISDS Approved/Disclosed: 01-Sep-2016

I. BASIC INFORMATION

1. Basic Project Data

Country:	India	Project ID:	P152698
Project Name:	National Hydrology Project (P152698)		
Task Team Leader(s):	Anju Gaur		
Estimated Appraisal Date:	01-Aug-2016	Estimated Board Date:	23-Nov-2016
Managing Unit:	GWA06	Lending Instrument:	Investment Project Financing
Is this project processed under OP 8.50 (Emergency Recovery) or OP 8.00 (Rapid Response to Crises and Emergencies)?			No
Financing (In USD Million)			
Total Project Cost:	350.00	Total Bank Financing:	175.00
Financing Gap:	0.00		
Financing Source			Amount
Borrower			175.00
International Bank for Reconstruction and Development			175.00
Total			350.00
Environmental Category:	B - Partial Assessment		
Is this a Repeater project?	No		

2. Project Development Objective(s)

The project development objective (PDO) is to improve the extent, quality, and accessibility of targeted water resources information and to strengthen the capacity of targeted water resources management institutions in India.

3. Project Description

Based on the successes of previous phases of project, the Government of India (GoI) wishes to expand these efforts to cover the entire country including the states of the Indus, Ganga and Brahmaputra basins. The Project will further improve and expand monitoring systems for water

availability and water use. It will emphasize real-time monitoring for operations, flow forecasting, integrated water resource planning on a river basin basis and strengthening of community-based groundwater management. The Project - will contribute to the GoI Digital India initiative by integrating across state and central agencies. The project will consist of the following four components:

Component A: Water Resources Monitoring Systems

This component will finance the establishment/modernization of new and existing hydromet monitoring systems including meteorology, streamflow, groundwater and water storage measurements and construction of Hydro informatics centers that capture both water resources and uses. This component will be implemented by all states/UT with the support of core central agencies. The major activities will include establishment of Hydromet observation network; Supervisory control and data acquisition systems for water infrastructure; and establishment of Hydro informatics centers.

Component B: Water Resources Information Systems

Component B will support strengthening of National and sub-national water information centers with web-enabled water resources information systems through standardization of databases and products from various data sources/departments; and make comprehensive, timely and integrated water resources information available to decision makers for effective planning, decision taking and operations. The sources of data/information will include the real time data acquisition networks and centers under Component A, remote sensing data, topographical maps and knowledge products developed under Component C.

Component C: Water Resources Operation and Planning Systems

This component will support the development of interactive analytical tools and decision support platform that would integrate database, models and scenario manager for hydrological flood forecasting, integrated reservoir operations and water resources accounting for improved operation, planning and management of both surface and groundwater. Component C has three sub-components: (C1) Development of analytical tools and decision support platform (river basin modeling; streamflow forecasting and reservoir operation systems; and irrigation design and operations); (C2) Purpose-driven support; and (C3) Piloting innovative water resource management solutions.

Component D: Institutional Capacity Enhancement

Component D aims to build capacity for knowledge-based water resources management. It would support establishment of water resources knowledge centers, professional development, project management and operations.

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

5. Environmental and Social Safeguards Specialists

Samuel Thangaraj (GSU06)

Suryanarayana Satish (GSU06)

Tapas Paul (GEN06)

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6. Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/BP 4.01	Yes	Potential environmental impacts in the Project arise from implementation of Components A and C; Project Components B and D will not have any environmental impacts. Component A, which will set up monitoring stations, data centers, and associated facilities and infrastructure, may have minor construction-related environmental impacts. These construction-related impacts will be managed by application of National Building Codes in designing and construction of the small buildings; and careful in-situ disposal of all construction wastes. The chances of overlooking water quality issues has been analyzed by the environmental assessment, and as a result, the project has mainstreamed substantial investment in augmenting water quality monitoring in the country. Component C may have impacts when plans or operation DSS are implemented. These issues were analyzed as part of the environmental assessment, and the project design ensures that all planning and operation DSS tools including their subsequent application will include a process of identification and incorporation of the relevant environmental issues, such as water quality and environmental flows.
Natural Habitats OP/BP 4.04	No	No direct or indirect impact on natural habitats will result from the project. Only Component C (which includes activities such as sub-basin plan preparation) may have indirect impacts on natural habitats that will need to be avoided. The process of preparation of sub-basin plans ensure that all possible impacts on natural habitats will be avoided, and as such natural habitat areas will be deemed as "no-go" areas, and excluded from any development unsuitable for natural habitats in the sub-basin plans; and as such the sub-basin plans will support conservation as per applicable laws and regulations.
Forests OP/BP 4.36	No	No direct or indirect impact on forests or livelihood based on forests. Only Component C (which includes activities such as sub-basin plan preparation) may have indirect impacts on forests that will need to be avoided. The process of preparation of sub-basin plans ensure that all possible impacts on forests will be avoided; and non-forest activities within forests, or any activity that may promote logging will be excluded from the sub-basin plans, as per applicable laws and regulations in India.
Pest Management OP 4.09	No	The project does not finance any chemical or synthetic

		pesticide. In fact rational and balanced use of pesticide, avoidance of WHO Classes I and II pesticides, and adoption of IPM and NPM will expected to be promoted by the sub-basin level water resources arrangement plans.
Physical Cultural Resources OP/BP 4.11	No	No direct or indirect impact on physical cultural resources is expected.
Indigenous Peoples OP/BP 4.10	No	The Project, even when implemented in Scheduled Areas 5 and 6 and covered by Forest Rights Act, 2006, will not trigger this OP/BP as forest and/or any land on which the Scheduled Tribes depend to meet their social, economic and cultural needs will not be used for the Project. However, they will enjoy the benefits of community-based water resource management program, if implemented in the Scheduled Areas. When required, such community-based water resources management plans in the Scheduled Areas will be prepared as an outcome of free, prior and informed process of consultations with tribal communities.
Involuntary Resettlement OP/BP 4.12	No	OP/BP on Involuntary Resettlement will not be triggered as the Project will not require expropriation of any private land or any government land under encroachment or under private use, for civil works. Civil works, where required, will be on existing land belonging to states and/or departments that are free of any encumbrances on within existing campuses or as addition to existing buildings. A participatory and transparent process of screening will be undertaken to identify such government/public land available free of encroachments. However, if suitable government land is not available, telemetry rooms (requiring about 5 square meter of land) could be built on private titled land, after leasing such land on payment of rent mutually agreed between land owners and the relevant government departments. The process of leasing of land will be transparent in which they terms of lease would be explained to landowners who will have the option of declining the lease if not satisfied with terms and conditions of the lease. In addition to the lease rent, if required, a member of the family of the landowner may be appointed as a watchman/security guard to take care of the telemetry room and its equipment.
Safety of Dams OP/BP 4.37	No	The project will finance data and analytical tools, such as reservoir operation system that may suggest improvement of operating rules for some reservoirs (that will be selected depending on the success of components A and B during implementation). The project will examine the need for specific examination of all dams of these

		reservoirs, and as required, will (i) accept selection of the dams where the borrower's dam safety review and management processes are deemed to be adequate and appropriate, for consequent preparation of reservoir operation plans; or (ii) in the event when the borrower's dam safety review and management were not found to be adequate and effective, will hire services of an independent panel of experts on dam safety, and/or implement the requisite inspection, remedy or any other dam safety measure. These mechanisms are covered by the operation manual of the project.
Projects on International Waterways OP/BP 7.50	Yes	OP 7.50 on International Waterways has been triggered because the Project includes activities in the Indus and Ganga-Brahmaputra-Meghna basins, which are international waterways to which OP 7.50 requirements are applicable. The Project meets the criteria defined in paragraph 7(b) of OP 7.50 that no riparian notification is required as: (a) the Project will provide technical assistance and localized support to Project implementing entities and it therefore does not involve any detailed design and/or engineering studies that may involve use or pollution of water, and (b) the aforementioned activities and expected negligible impacts will not adversely change the quality or quantity of water flow to other riparian countries, and will not be adversely affected by the other riparians possible water use.
Projects in Disputed Areas OP/BP 7.60	No	No known locations of the project's footprint is in the disputed areas.

II. Key Safeguard Policy Issues and Their Management

A. Summary of Key Safeguard Issues

<p>1. Describe any safeguard issues and impacts associated with the proposed project. Identify and describe any potential large scale, significant and/or irreversible impacts:</p> <p>Of the four components of the Project, two Components B and D will have no environmental impacts. Component A, which will set up monitoring stations, data centers and associated facilities and infrastructure, may have minor construction related environmental impacts. However, there was a need to integrate monitoring of water quality issues in the overall monitoring program. Component C may have impacts when plans or operation DSS are implemented, and therefore, it will be important to develop these through a process that identifies all relevant environmental issues, minimizes impacts and mitigates and manages these impacts. Other than OP/BP 4.01, the Project does not trigger any other Bank's safeguard policies. Further, the project activities do not have any potential large scale, significant and/or irreversible negative impacts.</p>
<p>2. Describe any potential indirect and/or long term impacts due to anticipated future activities in the project area:</p> <p>The project interventions and outcomes will contribute to more sustainable environmental management, and as such be considered as part of the overall national capacity building for</p>

<p>environmental management. By (i) setting in operation a reliable and accessible hydrological knowledge base of meteorology, surface and ground water resources and water quality; and by (ii) promotion of use of hydrological models and analytical tools. Any potential indirect and/or long term consequences due to anticipated future activities in the project area will be beneficial to small and marginal farmers, those who depend on water resources for their livelihood and also those who live along the rivers/river basins including women, Scheduled Tribes and other vulnerable people. The benefits include, among others, better information at community and individual levels facilitating improved access to irrigation and drinking water, and improved resilience to floods and droughts.</p>
<p>3. Describe any project alternatives (if relevant) considered to help avoid or minimize adverse impacts.</p>
<p>Project alternatives are not relevant as the Project will not have any adverse impacts that need to be avoided and addressed.</p>
<p>4. Describe measures taken by the borrower to address safeguard policy issues. Provide an assessment of borrower capacity to plan and implement the measures described.</p>
<p>The borrowers have prepared an Environmental Assessment, which mainly identifies the enhancement opportunities in the project (in addition of the plans for mitigating the small negative impacts that could arise from construction of monitoring stations, data centers, and associated facilities and infrastructure). As a result, monitoring of water quality, and incorporation of good environmental principles in the process of preparation of basin plans are mainstreamed in the project. The implementing agencies have some of the requisite capacities for undertaking water quality monitoring; and preparation of basin/sub-basin plans. Capacity gaps, with respect to analyses of water quality information and undertaking special purpose water quality studies, where relevant, has been identified, and the necessary capacity building plans are essential elements of the project. The Environmental Assessment including its Executive Summary has been disclosed in-country on June 16, 2016, and can be accessed from the website of the Ministry (www.mowr.nic.in).</p>
<p>5. Identify the key stakeholders and describe the mechanisms for consultation and disclosure on safeguard policies, with an emphasis on potentially affected people.</p>
<p>There is no project-affected people; and therefore, the key stakeholders include state and federal level managers responsible for preparation of state/basin level plans; for provision of irrigation and related other information services; for provision of drinking water and related information services; and for provision of information relevant for managing floods, droughts, water shortages. At state levels, multiple rounds of consultations were organized prior to preparation of the plans for water quality monitoring. At national levels, consultation workshops were organized to design the project, where design of the water quality and basin/sub-basin plans were discussed. The EA document had been prepared based on stakeholder inputs received from each participating state; and the Draft EA was discussed with responsible select state agencies, experts and academia on May 22, 2016. The final draft EA was publicly disclosed in the MoWR,RD&GR website on June 16, 2016.</p>

B. Disclosure Requirements

Environmental Assessment/Audit/Management Plan/Other	
Date of receipt by the Bank	15-Jun-2016
Date of submission to InfoShop	28-Jun-2016
For category A projects, date of distributing the Executive Summary of the EA to the Executive Directors	

"In country" Disclosure	
India	16-Jun-2016
<i>Comments:</i> EA is available at the website of the Ministry of Water Resources and Ganga Rejuvenation.	
If the project triggers the Pest Management and/or Physical Cultural Resources policies, the respective issues are to be addressed and disclosed as part of the Environmental Assessment/Audit/or EMP.	
If in-country disclosure of any of the above documents is not expected, please explain why:	

C. Compliance Monitoring Indicators at the Corporate Level

OP/BP/GP 4.01 - Environment Assessment	
Does the project require a stand-alone EA (including EMP) report?	Yes [<input checked="" type="checkbox"/>] No [<input type="checkbox"/>] NA [<input type="checkbox"/>]
If yes, then did the Regional Environment Unit or Practice Manager (PM) review and approve the EA report?	Yes [<input checked="" type="checkbox"/>] No [<input type="checkbox"/>] NA [<input type="checkbox"/>]
Are the cost and the accountabilities for the EMP incorporated in the credit/loan?	Yes [<input checked="" type="checkbox"/>] No [<input type="checkbox"/>] NA [<input type="checkbox"/>]
OP 7.50 - Projects on International Waterways	
Have the other riparians been notified of the project?	Yes [<input type="checkbox"/>] No [<input checked="" type="checkbox"/>] NA [<input type="checkbox"/>]
If the project falls under one of the exceptions to the notification requirement, has this been cleared with the Legal Department, and the memo to the RVP prepared and sent?	Yes [<input checked="" type="checkbox"/>] No [<input type="checkbox"/>] NA [<input type="checkbox"/>]
Has the RVP approved such an exception?	Yes [<input checked="" type="checkbox"/>] No [<input type="checkbox"/>] NA [<input type="checkbox"/>]
The World Bank Policy on Disclosure of Information	
Have relevant safeguard policies documents been sent to the World Bank's Infoshop?	Yes [<input checked="" type="checkbox"/>] No [<input type="checkbox"/>] NA [<input type="checkbox"/>]
Have relevant documents been disclosed in-country in a public place in a form and language that are understandable and accessible to project-affected groups and local NGOs?	Yes [<input checked="" type="checkbox"/>] No [<input type="checkbox"/>] NA [<input type="checkbox"/>]
All Safeguard Policies	
Have satisfactory calendar, budget and clear institutional responsibilities been prepared for the implementation of measures related to safeguard policies?	Yes [<input checked="" type="checkbox"/>] No [<input type="checkbox"/>] NA [<input type="checkbox"/>]
Have costs related to safeguard policy measures been included in the project cost?	Yes [<input checked="" type="checkbox"/>] No [<input type="checkbox"/>] NA [<input type="checkbox"/>]
Does the Monitoring and Evaluation system of the project include the monitoring of safeguard impacts and measures related to safeguard policies?	Yes [<input checked="" type="checkbox"/>] No [<input type="checkbox"/>] NA [<input type="checkbox"/>]
Have satisfactory implementation arrangements been agreed with the borrower and the same been adequately reflected in the project legal documents?	Yes [<input checked="" type="checkbox"/>] No [<input type="checkbox"/>] NA [<input type="checkbox"/>]

III. APPROVALS

Task Team Leader(s):	Name: Anju Gaur	
<i>Approved By</i>		
Practice Manager/ Manager:	Name: Meike van Ginneken (PMGR)	Date: 01-Sep-2016