PROGRAM-FOR-RESULTS INFORMATION DOCUMENT (PID)
CONCEPT STAGE

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Program Name	*Punjab Rural Water and Sanitation Sector Improvement Program*
Region	*South Asia*
Country	*India*
Sector	*WaterSupply (45%), Wastewater Collection and Transportation (35%), Sanitation (10%) and Wastewater Treatment and Disposal (10%)*
Lending Instrument	*Program for Results*
Program ID	*P150520*
{If Add. Fin.} **Parent Program ID**	*NA*
Borrower(s)	*Department of Economic Affairs, Ministry of Finance, Government of India*
Implementing Agency	*Department of Drinking Water and Sanitation, Government of Punjab*
Date PID Prepared	*4/22/2014*
Estimated Date of Appraisal Completion	*2/26/2015*
Estimated Date of Board Approval	*3/24/2015*
Concept Review Decision	TBD.
Other Decision *{Optional}*	NA

I. Introduction and Context

A. Country Context

1. India has been one of the fastest growing economies in the last decade, but its economy now shows signs of slowing down. Between 2004 and 2011, a period that includes the global financial crisis, India's growth averaged 8.3 percent per year. Expanding social programs lowered the poverty rate by 1.5 percentage points per year in 2004–09, double the rate of the preceding decade. India's growth rate has, however, recently slipped to a decade low of 5 percent in 2012-13 due to a combination of domestic and external factors, including high inflation, high fiscal deficit and weak external demand for the country's exports. This slowdown carries high social costs for millions of Indians, and threatens the gains made in poverty reduction over the past decade.

2. India's recently published 12th Five-Year Plan calls for major investments in infrastructure, including water and sanitation, as one of the pathways to increased growth and poverty reduction. Lack of adequate water supply and sanitation facilities impact the health and economic well-being of millions of Indians, especially those living in rural areas. According to the 2011 Census of India, close to 70 percent of India's 1.2 billion people live in rural areas, and

contribute to about 40 percent of the country's Gross Domestic Product (GDP). It is estimated that the total economic impacts of inadequate water supply and sanitation in India is about US$53.8 billion a year, equivalent of 6.4 percent of India's GDP in 2006.[1] This means an annual loss of US$48 per person. Therefore, improving access to water and sanitation services is a development priority for India.

B. Sectoral (or multisectoral) and Institutional Context of the Program

3. India has one of the highest coverage statistics for rural water supply (RWS), but the quality of services remains poor and sanitation is a major challenge. By 2010, about 90 percent[2] of India's rural population had reasonable access[3] to an improved water source[4], but only 31 percent of rural households had access to piped water (2011 Census). However, as of 2010 about 12 percent (97 million) of the global population without access to an improved drinking water source lived in India[5]. Therefore, continuing to expand sustainable access to improved water sources to India's rural population is a priority for India. The quality of services is generally poor – with unreliable/ intermittent supply, low pressures and water quality problems. Rural sanitation is another major challenge for India. Of the 2.5 billion people lacking sanitation across the world, over 650 million live in India. Only about 31 percent of rural households in India have access to sanitation (2011 Census). As of 2010[6], nearly 60 percent (626 million) of the global population practicing open defecation (OD) lived in India.

4. Rural water supply and sanitation (RWSS) is a state subject in India, but central government investments in the sector have increased significantly over the past four decades. The first investments from the Government of India (GoI) in the sector started during the fourth Five-Year Plan period (1969-74) and gradually increased over the next plan periods. GoI's investments in the Fourth Plan were a meager INR 300 million and expanded to INR 401 billion in the 11th Plan (2007-2012). State governments invest almost an equal amount from their own resources, and are responsible for managing provision of water supply and sanitation facilities and services. The Ministry of Drinking Water and Sanitation (MDWS) is the nodal ministry at the national level to promote RWSS development in the country. MDWS designs national programs, secures funding from GoI and releases it to states through agreed annual action plans, monitors performance of states, and coordinates with external agencies and other departments within GoI and the states.

5. Institutional arrangements for the management of the RWSS sector vary across states. The 73rd constitutional amendment (1993) provided for the devolution of RWSS to the three-tier Panchayat Raj Institutions[7] (rural local governments - PRIs) by conferring a constitutional status of local self-governments to the PRIs and also mandating transfer of 29 subjects to the PRIs,

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[1] WSP (2007). The economic impacts of inadequate sanitation in India. WSP/World Bank, Delhi.
[2] Ref: data.worldbank.org.
[3] Reasonable access is defined as the availability of at least 20 liters a person a day from a source within1 kilometer of the dwelling.
[4] Improved source is a household connection, public standpipe, borehole, protected well or spring, and rainwater collection.
[5] Progress on Drinking Water and Sanitation, 2012 update, WHO/UNICEF.
[6] ibid[5].
[7] The three-tier PRIs comprise Zilla Parishads (district councils), Panchayat Samitis (block councils) and Gram Panchayats (village councils). All these levels of rural local governments have an elected body and an administrative wing.

including water supply and sanitation. GoI aims to push the decentralization agenda through its RWSS program guidelines and devolution incentives.8

6. Punjab, with a population of 27.7 million living in 22 districts, is one of the advanced states of India. It has made great strides in implementing RWSS sector reforms while delivering services appropriate to meet the specific needs of local communities. Punjab is perhaps the first state in India to provide safe water supply to all its 12,258 villages9 (146 residual non-covered villages are expected to be covered by end December 2014). Rural sanitation coverage has been impressive at about 71.9%10 (the all India average is 32.7%) mainly because Punjab has been prioritizing sanitation. In addition to support received from the central government, Punjab has taken a loan from the National Agricultural Bank (NABARD) to finance toilets. The role of nodal agency, Department of Water Supply and Sanitation (DWSS) has been important in this achievement. Currently the State's annual RWSS sector budget is about US$ 90 million11; with significant contributions from by NRDWP, NBA, and the World Bank. The State has demonstrated impressive fund absorption capacity of close to 100% utilization.

7. Adoption of a Sector Wide Approach (SWAp) under the on-going World Bank assisted Punjab Rural Water Supply and Sanitation Project (PRWSSP-I) played crucial role in institutional strengthening, capacity to understand the sector, knowledge and monitoring. The state has demonstrated technical, financial and operational sustainability in about 4,000 villages covered under this project by involving communities in planning, implementation and management through Gram Panchayat (Village) Water and Sanitation Committees (GPWSC), leading to decentralized service delivery. Government of Punjab (GoP) is currently partnering with private operators in construction and operation of small bore sewerage schemes in about 90 villages. To reduce responsive time in breakdown repair, Punjab set up a toll free number based state wide complaint readdress system in 2010, which has become a model.

8. Punjab's RWSS sector is at cross roads: while villages covered under SWAp have demonstrated sustainable operations with several innovations through community management, a large number of villages outside the existing project are delivering poor services. Challenges faced by these villages include: (a) improving service levels, e.g., moving away from intermittent water supply for one hour twice a day to 24x7 continuous water services (35 pilots are now operating successfully) or at least 8-10 hours; (b) augmenting water supply schemes to deliver increased quantity of water (from 20-40 lpcd to 70 lpcd or more) to meet real demand; (c) increasing access or service coverage through household connections (862 of 1413 IDA supported villages have achieved more than 70% of household connection); and (d) promoting water conservation (546 IDA supported villages will have water meters and use volumetric tariff) and financial sustainability (782 of 1272 IDA supported villages surveyed are fully recovering operational costs). In the case of sewerage, the challenge is to find suitable land for constructing treatment plants. Identification of technologies that use less land may be pursued.

[8] 10 percent of national allocations to be provided as devolution incentives measured through a Management Devolution Index, initiated in 2011.
[9] PRWSSP-1MIS, 2014
[10] Census of India 2011
[11] DWSS-GoP, 2014

9. The biggest challenge facing the state is water quality. In addition to the presence of iron, fluoride, salinity etc., recent quality reports confirmed the presence of heavy metals such as uranium (radioactive), lead, and arsenic, especially in the 12 districts of the Malwa Region.. As of now, there is no dependable technology to treat water contaminated with heavy metals effectively. It is widely believed that uranium causes cancer, and press reports indicate that a train in Punjab is called 'Cancer Express' as it regularly carries cancer affected persons to Chandigarh for treatment (http://www.bloomberg.com/news/2013-10-28/cancer-express-carries-sufferers-of-india-s-deadly-waters.html; http://www.hindustantimes.com/india-news/cancer-express/article1-498286.aspx, http://en.wikipedia.org/wiki/Uranium_poisoning_in_Punjab). As an interim solution, the state is installing Reverse Osmosis (RO) Plants in quality affected villages with private sector participation. Perhaps, supply of surface water may be a sustainable solution though expensive.

10. To address these sector challenges, the State has adopted a new Rural Water and Sanitation Policy in 2013-14 setting out an ambitious roadmap for improved access, higher service levels and quality both in water supply and sanitation, targeting sustainable operations and maintenance through community management. In particular, the Policy will help the poor and women, as all households will get a household connection at no cost (both for water and sewerage). A six year action program for both water supply and sanitation is being prepared to initiate implementation of the above policy. This has called for substantial technical and financial resources, given the scale of demand for improved infrastructural services.

C. Relationship to CAS/CPS

11. The proposed Program is consistent with the March 2013 Country Partnership Strategy (CPS) for the period FY13-FY17, which is organized around three engagement areas – integration, transformation and inclusion – with a cross-cutting focus on improving governance, environmental sustainability and gender equality. In addition, the CPS is based on GoI's "Finance-Plus" approach, whereby the value-added by the Bank goes beyond financing and contributes to the transfer of knowledge and international best practices, reform of processes and systems, strengthening of capacity and institutions, and exploring innovative financing instruments. The proposed Program is fully aligned with all of these objectives.

II. Program Development Objective(s)

A. Program Development Objective(s)

12. The development objective of GoP's program (hereinafter referred to as the "Program Development Objective" or "PDO") is "*to improve access to quality and sustainable services and improve the capacity of GoP's sector institutions in planning, implementation and monitoring of its rural water supply and sanitation program in partnership with communities".*

B. Key Program Results

13**.** The Program will concentrate on three key result areas that will contribute to the achievement of the PDO:

a) Result Area 1: Improved access to quality and sustainable water services;
b) Result Area 2: Improved access to quality and sustainable sanitation services; and
c) Result Area 3: Improved institutional capacity for planning, implementation, monitoring and sustainability of RWSS service improvements.

14. The following is a preliminary list of outcome indicators identified to measure the achievement of the PDO, which will be further refined during preparation:

a) Number of households connected to a sustainable water supply system and receiving a regular water service;
b) Number of new sanitary household toilets constructed and in use;
c) Number of households connected to a sustainable sewerage system; and
d) Number of districts using multi-disciplinary approach and results based M&E systems.
{Same as in Section II of the PCN: PDO and Key Program Results}

III. Program Description

A. Description

15. GoP has an existing RWSS program that is fully aligned with and driven by GoI's National Rural Drinking Water Program (NRDWP) for water supply and Nirmal Bharat Abhiyan (NBA) for sanitation. GoP's proposed RWSS program is in line with national vision and goals, and also supports the constitutional mandate of devolution to local governments12. GoP has demonstrated its strong commitment to sector reforms and program objectives by updating sector policies and guidelines. The time horizon of GoP's RWSS improvement program is six years (2014-21) with a total resource commitment of US$540 million.

16. The proposed Bank program, which is sub-set of GoP's 6 year Medium Term Program (MTP), focuses on three key areas:

A. Water Supply:
   (i) Water Quality Affected Villages – addressing water quality issues.
   (ii) Rehabilitate damaged schemes in water logged areas and transfer to communities.
   (iii) Improve quantity of water supply (old schemes) to 70 lpcd and transfer to communities for management.
   (iv) Efficiency improvements through low investments with a focus on transfer of management to communities.
B. Sanitation:
   (v) Increased coverage of toilets –align with NBA.
   (vi) Community managed sewerage schemes.
C. Institutional:
   (vii) Institutional Strengthening, IEC, Community Development, and Program Management.

17. The estimated budget requirement is INR2,200 Cr (US$354 million) of which the Bank is expected to finance INR1540 Cr (US$248 million); this would be consistent with GoI norms of

[12] GoP had transferred Water Supply and Sanitation scheme management to local governments.

70% external financing of projects/programs. The proposed GoP program, which is summarized below, would be reviewed during preparation:

A. Water Supply	
• Rehabilitation - Surface water based damaged schemes	108 villages
• Upgrade – Partially covered to Fully covered status	800 villages
• Performance Improvement of water supply schemes	1,000 villages
• Quality Affected Villages	250 villages
B. Sanitation:	
• Support toilets (part financing) in villages willing to go for 100% toilet coverage - follow GoI's NBA program	Upto 20% total households
• Sewerage Schemes of those managing Water Supply	800 villages
C. Community Development and IEC	
• Sustainability – Community management and Monitoring; inputs to sustain all SWAp villages	3,900 villages
• Transfer of non-SWAP and non-project villages to communities for management and sustainability	3,000 villages
• Sustainability / Community Development inputs to program villages	2,000 villages
• Capacity building – Operators / elected representatives etc.	All villages (?)
• Hygiene – Campaigns / IEC	All villages
• Sanitation – ODF campaigns / IEC	All villages
D. Sector Development	
• Monitoring	Statewide
• Institutional Development	Statewide
• Capacity Building	Statewide

18. Disbursement Linked Indicators (DLIs). DLIs for the Program will be developed during preparation, taking into account DLIs developed for the recently approved Maharashtra RWSS PforR operation and experience with the on-going Vietnam RWSS PforR operation. It is envisaged that DLIs for the Program will cover each of the three Result Areas, with greater weightage to improving access to quality and sustainable water services. In view of the novelty of implementing DLIs and to keep disbursement administration simple, it is proposed to limit the number of DLIs to no more than six.

{Same as in Section III A of the PCN – Description.}

IV. Initial Environmental and Social Screening

19. Environmental Management. The overall environmental impact of the Program is likely to be positive owing to benefits such as improved access to quality and safe water, enhanced availability of water, investments in water supply systems, groundwater management and improved access to sanitation services. However, environmental risks could arise due to improper location, planning, execution and management of both water supply and sewerage schemes. The critical areas sensitive to this are characterized by: extent of groundwater withdrawal (overexploited and critical groundwater status), poor groundwater quality, poor surface water quality, and proximity to protected natural areas and monuments. The risks are:

water sources not being sustainable; poor water quality; contamination from poorly designed/managed water and sewerage treatment units; impacts on natural and cultural heritage sites; occupational and public safety risks; and water wastage.

20. The state has well-defined legal/regulatory systems for safeguarding water resources and ecologically significant areas from pollution, for protection of groundwater sources from interference, and for excluding activities that are likely to have significant adverse impacts on eco-sensitive areas. However, implementation of the existing provisions faces challenges due to multiple regulations, overstretched regulatory authorities, etc. The state has experience of integrating operating procedures on environmental management in single / multi village rural water supply and sewerage schemes. The Bank supported on-going project has introduced environmental management screening, scoping and development of environmental management plans from an environmental sensitivity angle in project supported water supply and sewerage schemes. Environmental compliance and management plans are also part of bid documents. Schemes are well monitored from the environmental perspective. However, monitoring implementation of these procedures at the state-level will need to be strengthened.

21. Based on environmental management challenges experienced under the on-going project, environmental management improvements required will be assessed during preparation, and institutional and operating systems will be strengthened at planning, implementation and monitoring stages of the proposed program.

22. **Social**. The Program is likely to have positive social impacts owing to benefits such as savings in time spent by women and girls in collecting water, improved health and personal hygiene, effective information dissemination, enhanced community participation, creation of institutions accountable for service delivery, and social audits to promote good governance mechanisms. The on-going project confirms that schedule caste and poor households have been provided subsidies. Focused attention has been provided to build awareness amongst stakeholders through outreach programs. The state has pioneered the use of ICT applications for grievance management. However, "the rules of engagement and processes and procedures" to enhance social inclusion, participation, transparency and accountability require further strengthening. Weak institutional capacity to track disaggregated information to assess performance of social development issues remains a challenge. Potential risks for the proposed Program are: (a) elite and male capture of institutions such as the GPWSSC and GP, and the risk of the GPWSCs sidelining GPs; (b) weak involvement of women and other vulnerable groups in participatory decision making; (c) lack of transparency and accountability, and poor conflict management; (d) challenges associated with land required for small civil works; and (e) weak systems to track social inclusion and citizen feedback.

23. The Program will build on experience from the on-going project and support strengthening of processes and procedures to ensure social inclusion, participation, transparency and accountability, through the planning, implementation and O&M stages. The grievance management system will be enhanced to address complaints associated with access to information, benefits, etc.

24. **Information sharing and Communication.** The on-going Project has designed robust

information, education and communication (IEC) activities specifically targeted to increase demand for the use of piped water to prevent health related risks of using other unsafe sources for drinking and cooking and demand for connecting toilets to sewage systems. The proposed new Program will be designed to create and meet demand for 24/7 piped water and sanitation for all. IEC activities will include training and capacity building for rural water supply and sanitation in areas such as M&E, water quality control, and planning and sustainability of water, sanitation and sewerage schemes.

25. Going forward, the Program will strengthen linkages with GoI's *Nirmal Bharat Abhiyan* (NBA) and National Rural Drinking Water Program (NRDWP). The shift/convergence will be proposed via the design and implementation of a state -wide communication strategy for rural water and sanitation (including toilets, solid waste, liquid waste and pond/ lake revival). This will continue the behavior change and IEC activities under the on-going project designed to promote demand for clean piped water, hygiene and behavior change, increased demand for sanitation construction and usage, and changes in sanitation behaviors and outcomes.

26. Information sharing and communication activities will be designed to support outreach activities of the Program involving key stakeholders in the sector and the setting up of an electronic platform to promote transparency and social accountability, using modern tools in addition to traditional mass media tools. This platform is expected to also be used for feedback. During preparation, communication studies, including a consumer research study, will be conducted to identify factors that influence water and sanitation behavior (such as Open Defecation) and identify the most trusted and appropriate channels of communication.

V. Tentative financing

Source:	($m.)
Borrower/Recipient:	106
IBRD IDA Others (specify)	248
Total	354

VI. Contact point

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