Social Assessment, Capacity Building and Communication Framework for the Rural Water Supply & Sanitation Project in Jharkhand

DRAFT REPORT

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ACRONYMS

ANM	Auxilliary Nurse Midwife
APL	Above Poverty Level
ASHA	Accredited Social Health Activist
AWW	Anganwadi Worker
BCC	Behaviour Change Communication
BPL	Below Poverty Level
CDD	Community Driven Development
CE	Chief Engineer
DPSU	District Project Support Unit
DWSC	District Water and Sanitation Committee
DWSD	Drinking Water & Sanitation Department
DWSM	District Water and Sanitation Mission
FGD	Focus Group Discussions
GP	Gram Panchayat
HH	Household
HDPR	Habitation Level Detailed Project Report
IEC	Information, Education and Communication
MVS	Multi Village Schemes
NC	Not Covered
O&M	Operation and Management
PC	Partially Covered
PRI	Panchayat Raj Institutions
RWSS	Rural Water Supply and Sanitation
RWSSD	Rural Water Supply and Sanitation Department
SA	Social Assessment
SC	Scheduled Caste
SE	Superintendent Engineer
SHG	Self Help Group
SO	Support Organizations
SPSU	State Project Support Unit
ST	Scheduled Tribe
SVS	Single Village Schemes

SWOT	Strengths, Weaknesses, Opportunities, and Threats
SWSM	State Water and Sanitation Mission
TDP	Tribal Development Plan
TMC	Thousand Million Cubic Feet (Billion Cubic Feet)
TSC	Total Sanitation Campaign
TWC	Tribal Welfare Commissioner
UGD	Under Ground Drainage
VWSC	Village Water and Sanitation Committee

EXECUTIVE SUMMARY

Social Assessment, Capacity Building and Communication Framework for the Rural Water Supply and Sanitation Project in Jharkhand

State Profile of Jharkhand

The two notable features of Jharkhand are its high proportion of Scheduled Tribe population which is about 28 percent against an all India average of 8 percent, and a high percentage of area under forest cover which is about 29 percent against the Indian average of 23 percent[1]. It has around thirty two Tribal Groups, major among them being Santhal, Munda, Oraon and Ho. Eight out of the thirty-two tribes of Jharkhand fall under Primitive Tribal Group (PTG)[2]. Out of 259 blocks in the state of Jharkhand, 112 fall under the Fifth Schedule areas (spread across 15 districts out of 24 districts).

Jharkhand is one of the recently formed states of the Indian union. Like any new administrative entity, it also faces a number of issues. Some of these issues are as follows:

- Jharkhand is the fifth poorest Indian state with 51.6% rural people below the poverty line (BPL).
- Natural resouces are depleting as forestlands are degrading due to uncontrolled grazing, illegal logging
- Declining fertility of soils, increasing incidences of drought and seasonal shifts in rainfall patterns are affecting traditional cropping patterns and limiting harvests.
- It was only in 2010 that the Government of Jharkhand (GoJ) conducted the Panchayat elections, empowerment of these institutions by devolving finances and executive powers is yet to begin in the right earnest.[3]
- Left Wing Extremism has created its own kind of governance problems particualrly in tribal dominated areas which today afflicts 20 out of 24 districts in Jharkhand[4]. LWE on the one hand, mobilizes the discontent amongst tribal people to its cause, and on the other hand, prevents the government to deliver services to improve their quality of life and living conditions.
- The state accounts for one of India's highest mortality rates for children under five. Infant mortality rate is 67 as against all India average of 57 with low percentage of child immunisation at 34.2%[5].
- Four out of every 10 women in Jharkhand are undernourished. Half the children younger than three are considered malnourished. About 57% are underweight due to both chronic under nutrition, worse nutritional status than children in most other states in India.[6]
- The coverage of rural water supply and sanitation services is very low in Jharkhand. Besides, there are water quality related issues too, with many places mainly reporting Fluoride, and Iron contamination. 49% of the population is dependent on hand pumps for their water and the rest remaining meet their needs from a variety of sources, such as, wells, ponds, rivers, streams, piped sources, etc. The sanitation facilities in the rural areas too leave much to be desired. Only 7.6% of

[1] Census of India, 2001; http://jharkhand.nic.in

[2] Among scheduled tribes, there are certain tribal communities who have declining or stagnant population, low level of literacy, pre-agricultural level of technology and are economically backward. 75 such groups in 17 States and 1 Union Territory have been identified and categorized as Primitive Tribal Groups (PTGs).

[3] IFAD/India-Jharkhand Tribal Empowerment and Livelihood Project - Project Design Report-Appraisal- Main Report, 2012

[4] http://www.satp.org/satporgtp/countries/india/maoist/

[5] IFAD/India-Jharkhand Tribal Empowerment and Livelihood Project - Project Design Report-Appraisal- Main Report, 2012

[6] *Ibid*.

rural households have toilets in their houses. The situation is even worse for SC (4.3%) and ST (3.7%) households. Only around 2% of the rural households have closed drainage facility.[7]

Initiative to Improve Rural Water and Sanitation

As per the NRDWP, there are a number of states with less than 10 percent coverage of rural households with piped water supply and are lagging behind in many service parameters related to water and sanitation. To assist these low income states, the Ministry of Drinking Water and Sanitation (MoDWS), GoI has developed a program for **Rural Water Supply and Sanitation for Low Income States (RWSSP-LIS)** with the assistance of the World Bank. Four States (Bihar, Uttar, Pradesh, Jharkhand, and Assam) are being taken up as part of the Phase I project. The project aims to improve piped water coverage integrated with sanitation services through decentralized service delivery systems. It will be implemented through a special window of assistance under NRDWP.

The **main objectives of RWSSP** are: (a) to demonstrate the viability of cost recovery and institutional reforms by developing, testing and implementing the new decentralized service delivery model on a pilot basis; and (b) to build the State's capacity in improved sector management in order to scale up the new decentralized service delivery model State-wide.

The **RWSS Project in Jharkhand will be implemented in six districts**, namely, Garhwa, East Singbhum, Saraikela-Kharsawan, Khunti, Dumka and Palamau. In the first five districts there will be four types of schemes, namely, Single Habitation Schemes (SHS), Single Gram Panchayat Schemes (SGS), Simple Multi Village Schemes (MVS) and Large Multi Village Schemes (MVS). Palamau will have only one Large MVS scheme.

The Need for Social Assessment Study

Since the project beneficiary profile is not homogeneous, but quite diverse comprising a number of sub-groups identifiable on the basis of their tribal–non-tribal status, ethnicity, gender, differential endowment, different economic groups and other regional features, the project needs to address the requirements of all the sub-groups, with special attention towards the tribal poor and other socially excluded sub-groups in some areas. Besides, there are a large number of stakeholders, some internal and others external to the project, who would have varying degrees of influence and impact on project activities and outcomes. This makes it necessary for the project to provide a framework for participation of all key stakeholder groups and enable solicit their contributions towards project design and delivery mechanisms. To this effect, as part of the project preparation this **social assessment** has been undertaken.

The **objective of this assignment** is to assess the possible social impacts of the proposed project interventions; develop measures to mitigate negative impacts and enhance positive impacts; examine the legal, policy and institutional aspects to judge their suitability for the sustainability of the intervention. The scope of the assignment is expanded to cover aspects related to capacity building, communications strategy and gender inclusion in general and for the PRI in particular.

The assignment consists of **three components**:

A. The Social Assessment (SA)Study
B. Capacity Building (CB)Strategy
C. Information. Education and Communication (IEC) Strategy

Social Assessment Study

[7] Census, 2011

Approach:

The study has been conducted using **participatory approach** throughout. It has taken into account all the stakeholders at all levels i.e. from the policy level to field operations level. Consultation with the identified stakeholders has been ensured during all stages of the study.

Methodology:

1. Review of Secondary Information
2. Quantitative Survey: Selecting 960 households from 60 villages from 30 GPs across 5 districts (Dumka, Garhwa, East Singbhum, Saraikela-Kharsawan and Khunti)
3. Qualitative Study: 30 FGDs with Rural Community, 30 FGDs with Women and SHG members and 30 Key Informant Interviews (KII) with GP representatives. In-depth Interviews (IDI) with Block and State level counterparts

Beneficiary Assessment: Findings

- There is severe lack of awareness on felt need of water and sanitation
- People spend substantial time and energy in collecting water
- Piped water coverage is very low or non-existent
- The quality of water accessed is not good enough
- There is not enough or adequate supply of potable water
- Coverage of household latrines are abysmally low
- Most people prefer open defecation
- There is lack of awareness on water sanitation and health relationship
- Problem of waste and waste water disposal in almost every habitation/village
- Problem of timely repair and maintenance due to lack of local capacity
- Preference in employment to local people in water and sanitation work

Rural Water and Sanitation issues

- Piped water coverage is very low or non-existent. Coverage of household latrines is abysmally low.
- There is not enough or adequate supply of potable water within 50 meters from the dwelling and thus people spend substantial time and energy in collecting water
- Tribal habitations in many villages are scattered and difficult to access thereby leading to increased chances of them being excluded from development projects. The situation becomes more pronounced in the case of PTG habitations. Ensuring, to the extent possible, the accrual of project benefits to the traditionally marginalized communities-more specifically, the PTGs under the project area
- There is lack of awareness on water sanitation and health relationship. Hygiene practices are inadequate
- Women being the key stakeholder in water and sanitation are at the most disadvantageous position at present since there is a lack of basic sanitation facility, drinking water and awareness related to health and hygiene.
- There is absence of a proper grievance redressal system

Institutional Structure and Implementation issues

- There is a lack of leadership for water and sanitation plan at district and block level.
- Village/Habitation level institutions are not adequate.

- The leadership role required for water and sanitation mission is lacking at district and block level at the DWSC/DWSD.
- Zilla Parishads do not have enough knowledge and capacity to address water and sanitation issues.
- Lack of interdepartmental coordination, particularly DWSD, Health and Education as well as little or no convergence in the programmes running under the water and sanitation sector in these departments.
- Local level institutions like VWSC and traditional institutions are technically as well as financially not strong enough to take up water and sanitation issues effectively.

Stakeholder Analysis: Finding

- PRI and other Local capacity are weak and inexperienced to manage water and sanitation services in CDD approach.
- Jalsahiya's capacity presently is not adequate. The role envisaged for her under the project may not be adequately managed by her and need more clarity, commensurate with her capacity.
- Women are excluded from any decision making on water and sanitation services.
- There is no leadership for taking water and sanitation issue at priority.
- Cost recovery is an issue in areas with poor population and smaller habitations.
- Some groups (PTGs, SCs, etc.) may be excluded from the water and sanitation services.
- There is no safe disposal of waste and waste water.
- Timely transfer of funds to VWSC is also a serious issue.
- Traditional institutions of governance may be ignored. They want to be an essential part of design and implementation.
- Tribal rights may be ignored while designing the project

Gender Issues:

- Safety issues in open defecation
- Inconveniences in attending to nature's call during day time
- Less attendance of adolescent girl child in school due to non-availability or locked toilets
- Drudgery of women in fetching water
- Women neglected in water and sanitation planning issues

Perceived Positive impacts due to this project:

- Sufficient availability of quality water.
- Reduced drudgery of carrying water from long distances particularly in summers and rainy season.
- Improvements in quality of life and dignity.
- Reduced nuisance of open defecation due to increased coverage of individual sanitary toilets.
- Improved health conditions - Reduced disease burden due to reduction in water borne diseases and Reduced health expenses
- More chances for girl child to attend schools for all impacted population but particularly poor and tribal
- Less suffering during summers.
- Improved community participation and sense of ownership.
- Improved Capacity of beneficiaries to handle water and sanitation assets.
- Creation of new jobs for locals as masons, plumbers.
- A forum for beneficiary cohesion in making decisions.
- Empowerment of community members in owning and maintaining water supply services.

- Capacity building of HWSC/VWSCs, members enhanced participation in PRI activities.
- Opportunity for provision of reliable water and sanitation services.
- Opportunity for propagating community owned decentralized waste supply systems.

Perceived negative impacts of the project:

- Partisan in User Committee – domination of the powerful in making decisions.
- Conflict among Tribal and Non tribal or among BPL card and non card holders in payment of user charges.
- Water stagnation/water logging in some areas - Health Hazards, due to stagnation of water
- Domination of male members in User Committees may lead to insensitive decisions.
- Chances of VWSC overruling the villagers needs and Scheduled Tribes.
- Higher Tariffs for water
- Exclusion of tribals in non-tribal areas.
- Off shouldering of responsibility of the beneficiaries on the Jalsahiyas.
- Threat of conflict between roles related to regular developmental agenda and that of VWSC Whims and fancies (nepotism) in appointment of Jalsahiya.

Safeguard Measures

Indigenous People (OP 4.10 Triggered): The present study confirms that there are around 15% to 73% Scheduled Tribes in the six project districts. They belong to various tribal groups with unique identity, diverse religious and cultural practices, different languages and festivals which are distinctly different from the other locals in the state. The tribals are related to the habitations since generations. After having a baseline study and a beneficiary assessment, the present study has concluded that OP 4.10 will be triggered; accordingly, a separate **Tribal Development Plan (TDP) for Jharkhand** to address the needs of the tribals and to ensure their ***discriminatory targeting*** has been prepared and is presented as separately.

Land Acquisition (OP 4.12 Not Triggered): Based on records of previous years in Jharkhand, there has been no incidence of acquiring private lands on involuntary basis for similar projects. The current study also shows that there is no need to acquire private land involuntarily. However, if at all needed, voluntary donation of land will be taken up from PRIs.

Recommendations

- Stakeholders to have access to project information;
- Partnership with NGOs/SOs to enhance transparency and accountability.
- Flexible operational structure to engage stakeholders at all levels and clear delineation of roles and responsibilities at each level of operational structure.
- Conducting continuously state and district level stakeholder consultation workshops to discuss the problems and priorities of people and take feedback from stakeholders.
- Partnering with NGO/SOs to achieve participatory planning and implementation particularly in areas such as awareness creation, social mobilization and group formation as well as community training in various aspects of watershed, livelihood, etc.
- Post-project handing over of assets to community level institutions for operation and maintenance.
- The project to facilitate convergence with other development programs.
- Establishment of a MEL (Monitoring, Evaluation & Learning) system that provides timely and necessary information for achieving transparency and accountability.
- Addressing Gender issues

  - Representation for women in HWSC/VWSC and other community level institutions.
  - Representation for women in training and other capacity-building initiatives.
  - Support or partner agencies to be appointed will deploy at least one-third women staff.
- Ensuring Convergence across departments
  - Convergence and integration should be attempted during the project design.
  - Integrating or converging rural water and sanitation work particularly with MGNREGS work particularly for farm ponds and rain water harvesting.
  - The DWSD should periodically review progress of planning, training and extension, and program convergence along with implementation of the schemes at the District level.

Capacity Building Strategy

The main **Objectives of the Capacity Building Component** for the communities are:

- Guide the process of Community Awareness, Gender Mainstreaming, Construction facilitation and Pubic Participation components in districts under the project bringing about their integration with the state and national programs in water supply and sanitation;
- Strengthen the stakeholders to facilitate the process of Water supply and Sanitation improvement with aim to " Do Good" to any one impacted by the project;
- Ensure the awareness and participatory needs of the communities; and
- Establish a framework for involving all stakeholders in order to achieve an efficient and smooth implementation of the program.

Key Issues in Capacity building In Jharkhand

- Local Level capacity is not adequate for water and sanitation implementation
- Jalsahiya not capacitated for the current envisaged role
- Some District level engineers not interested in social engineering and in taking leadership for water and sanitation in a mission mode
- Lack of technical personnel at local level for repair and maintenance
- Existing institutional capacity with DWSD is very limited particularly in terms of social engineering and leadership by the district level functionaries.
- Past trainings have been ad-hoc and not systematic. Also there is lack of training modules that can be rolled out quickly.
- Confidence building among the Mukhiyas and other PRI members
- Knowledge Attitude and Practice shift
- Integration and capacity building of Traditional village level institutions
- Self actualisation to community leaders and in general and implementing agencies in particular.
- Jalsahiya –their current capacity and assigned role mismatch
- A very high percentage of beneficiaries are tribal population and has high level of dependency on government officials. This dependency needs to be reduced through local level capacity building on a sustained basis.

Approaches to Training

The learning process in the training is strengthened more by learners' efficiency to learn than the trainers' efficiency to train. A training programme can achieve better learning efficiency of the learner through the following approaches to Training in addition to Class room sessions

- Participatory sessions
- Introductory Workshops & Public Relations and Awareness Building Campaign
- Practical sessions

- Exposure visits
- Sharing & learning
- Meeting sessions learning
- Model demo centres

Capacity Building Requirements are Multi stage and Multi Level: The capacity building strategy has to focus on Multi stage & Multi Level training programmes which transforms the current behavioural, technical, financial and managerial dimensions of the projects.

Information, Education and Communication Strategy

IEC is a package of planned interventions which combine informational, educational and motivational processes, as a component of a national programme. It aims at achieving measurable behaviour and attitude changes within specific audiences, based on a study of their needs and perceptions. IEC has to be well articulated with the provision of relevant products and/or services preferably in local language.

Finding from HH Survey

- The rural community is mostly aware about the MGNREGA, IAY, MDM and PMGSY programme of the government. Awareness about NRDWP and NBA is very low.
- On an average, the people receive information about various government schemes from friends and relatives (79.9), from GP members (77.6), from AWW, ANM, ASHA (69.7) and from hoardings (56.3).
- It is important to notice that very few people have received information from radio, promotional activities and newspapers.
- In the districts, information is received mostly from GP members, friends and families. It is interesting to note that hoardings also play a significant role in capturing the attention of the rural community.
- Regular village level functionaries like the ANM, the AWW and the ASHA are crucial information links for the government. School Teachers play significant role too.
- Most of the respondents could recall initiatives like distributing handbills and rallies by school children as promotional activities for drinking water and sanitation in the village.
- Only 11% in East Singbhum and 12% in Saraikela-Kharsawan responded that Gram Sabhas are organised regularly. Respondents from Dumka, Gadhwa and Khunti were not aware of Gram Sabha meetings.
- East Singbhum and Saraikela-Kharsawan being more urban areas – people watched television more than the other four districts. Nearly 21% people read newspapers in East Singbhum.
- Only 3.6% in East Singbhum and 3.1% in Saraikela-Kharsawan are aware of the grievance-related Helpline number and have called that number for assistance.
- Awareness of respondents from Khunti district related to Jalsahiya was the highest 59.4%. Among the ones who knew about Jalsahiya, very few stated that she has discussed issues related to water and sanitation with the community. Most of the people who responded stated that the role of Jalsahiya "*is to repair and maintain handpumps…*"
- Communication efforts carried out were ad hoc and sporadic, the activities are neither inter-linked nor are they carried out in a systematic phased manner, hence message recall was low
- Centralized distribution mechanism for dissemination of communication material has limited reach and is found stacked at the state / district head quarters
- The penetration of communication channels and messages into the target audience is poor. No one knew about SMS alerts, TV programmes. Jalsahiya is being trained on Hand-Pump maintenance but she does not have the Toll-Free Number for Hand-pump repairing

The Vision of the Communication Strategy

> **Every family, including children, in rural areas will realize the importance of a healthy environment and adopt sanitation facilities along with positive hygiene and behaviour**

The Strategy would focus on only ***four critical sanitation and hygiene behaviours***-

- Building and use of toilets
- The safe disposal of child faeces
- Hand-washing with soap after defecation, before food and after handling child faeces
- Safe storage and handling of drinking water

The **overall objective of the communication strategy** is to attain a positive behavior change among the stakeholders with respect to hygiene, sanitation and use of safe water. This will include enhancing knowledge regarding sanitation, hygiene and safe water encouraging conversion of the knowledge in to practice.

- Increase mass awareness levels and make the identified audiences more conscious about issues related to the importance of sanitation and hygiene;
- To influence decision makers and opinion leaders to advocate for improved sanitation and hygiene standards, thus creating an overall positive environment; and
- Ensure that households have knowledge of the linkages between sanitation, hygiene and health leading to increased public demand for quality sanitation services and adoption of hygiene practices.

The **three main strategies** adopted are:

- Advocacy to raise resources and political and social leadership commitment for development goals;
- Social mobilisation for wider participation and ownership; and
- Programme communication for changes in knowledge, attitude and practice of specific participants in programmes.

When combined with the development of appropriate *skills and capacities*, and the provision of an *enabling environment*, communication plays a central role in positive behaviour development, behaviour change and empowerment of individuals and groups.

Programme Monitoring and Evaluation

The aim of the M&E plan is to "measure the progress in activity implementation as well as extent to which the activity will result in changes in accordance with the objectives".

Objective

The project monitoring will aims in improving the following;

- Status Reporting
- Programme implementation
- Data sharing with partners
- Accountability
- Intermediate correction in programme implementation
- Services (water & sanitation)
- Use of toilet and sustainability of the structures

Type of Monitoring

Internal and external both the monitoring is proposed to ensure accountability.

Internal Monitoring

This could be undertaken at each of the levels like HWSC/VWSC, DWSM and SWSM. At each level, participatory monitoring could be adopted under which representatives of HWSC/VWSCs, NGOs and other stakeholders could be involved and they can submit report to the upper level i.e. DWSM which will further review the progress and then submit its report to SWMS.

External Monitoring

Consultants/Third Party Monitoring Agencies could be appointed by SPMU who will monitor the project progress on pre-identified indicators.

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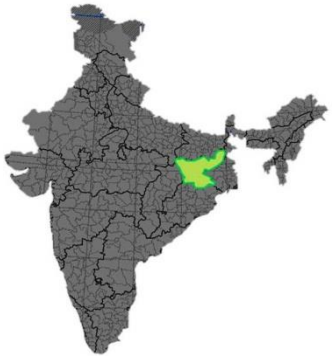
1. INTRODUCTION

1.1 State Profile



Jharkhand is a state in Eastern India. It was carved out of the southern part of Bihar on November 15, 2000. The state has an area of 79,710 km^2. It shares it's boundary with the states of Bihar to the north, Uttar Pradesh and Chhattisgarh to the west, Odisha to the south, and West Bengal to the east. Two notable features of Jharkhand are its high proportion of Scheduled Tribe population which is about 28 percent against an all India average of 8 percent, and a high percentage of area under forest cover which is about 29 percent against the Indian average of 23 percent[8].

With a population of 32.96 Million, the state accounts for 2.6 percent of India's population. The rural and urban population accounts for 77.7 percent and 22.3 percent of the total population respectively. Jharkhand has 24 districts, 260 blocks and 32,620 villages.[9]

Physiography and Climate

Most of the Jharkhand state lies on the Chota Nagpur Plateau, which is the source of the Koel, Damodar, Brahmani, Kharkai, and Subarnarekha rivers, whose upper watersheds lie within Jharkhand.

There are three well-defined seasons in Jharkhand. The cold-weather season, from November to February, is the most pleasant part of the year. The hot-weather season lasts from March to mid-June. May, the hottest month, is characterized by daily high temperatures in the upper 90s F (about 37 °C) and low temperatures in the mid -70s F (mid-20s C). Maximum rainfall takes place during the months from July to September that accounts for more than 90% of total rainfall in the state. The average annual rainfall of the state is 1300 mm.

Tribes of Jharkhand

Among all States and UTs, Jharkhand holds the 6th rank in terms of Scheduled Tribe (ST)[10] population. It has around thirty two Tribal Groups, major among them being Santhal, Munda, Oraon and Ho. Eight out of the thirty-two tribes of Jharkhand fall under Primitive Tribal Group (PTG)[11.] They are Asur, Birhor, Birajia, Korwa, Savar, Pahariya (Baiga), Mal Pahariya and Souriya Pahariya. PTGs remain the most isolated and disadvantaged indigenous tribal groups with noticeable reduction in their population. Malnutrition, Malaria and dysentery are rampant in PTGs villages and the access of these communities to the social welfare programmes remains limited.[12]

The tribals normally live in contiguous areas unlike other communities. Their lives are closely associated with the nature as they eke out their livelihoods from the natural environ – streams, trees, plants, animals etc. It is, therefore, recognized that maintaining their identities would

[8] Census of India, 2001; http://jharkhand.nic.in

[9] IFAD/India-Jharkhand Tribal Empowerment and Livelihood Project Project Design Report-Appraisal- Main Report, 2012

[10] The Article 366 (25) of Constitution of India defines scheduled tribes as "such tribes or tribal communities or parts of or groups within such tribes or tribal communities as are deemed under Article 342 to be Scheduled Tribes for the purposes of this constitution".

[11] Among scheduled tribes, there are certain tribal communities who have declining or stagnant population, low level of literacy, pre-agricultural level of technology and are economically backward. 75 such groups in 17 States and 1 Union Territory have been identified and categorized as Primitive Tribal Groups (PTGs).

[12] IFAD/India-Jharkhand Tribal Empowerment and Livelihood Project Project Design Report-Appraisal- Main Report

invariably mean keeping their environment intact with them. Given the contiguous inhabitations, it also becomes simpler to have an area approach for development activities and also regulatory provisions to protect their interests. In order to protect the interests of the Scheduled tribes, the provision of "Fifth Schedule" is enshrined in the Constitution under article 244 (2).

The Fifth Schedule under article 244 (2) of the Constitution defines "Scheduled Areas" as such areas as the President may by order declare to be Scheduled Areas after consultation with the governor of that State. The criteria for declaring any area as a "Scheduled Area" under the Fifth Schedule are:

- Preponderance of tribal population,
- Compactness and reasonable size of the area,
- Available administrative entity such as district, block or taluk, and
- Economic backwardness of the area as compared to neighboring areas.

Out of 259 blocks in the state of Jharkhand, 111 fall under the Fifth Schedule areas (spread across 15 districts out of 24 districts)

Administrative Setup

The state consists of 5 Administrative Divisions namely:

I. South Chhotanagpur comprising 5 districts - Ranchi, Khunti, Simdega, Gumla and Lohardaga.
II. North Chhotanagpur comprising 7 districts - Hazaribagh, Ramgarh, Chatra, Koderma, Giridih, Bokaro and Dhanbad.
III. Kolhan comprising 3 districts - East Singhbhum, West Singhbhum and Saraikela-Kharsawan.
IV. Palamu comprising 3 districts - Palamu, Garhwa and Latehar.
V. Santhal Parganas comprising 6 districts - Sahebganj, Pakur, Jamtara, Deoghar, Dumka and Godda.

Administrative Units	No. of Units
Districts	24
Sub-Division	36
Developmental Blocks	259
Panchayats	4,423
Villages	32,615
Towns	149
Corporations	3
Nagar Parshad/Nagar Panchayat	37
Source: Census of India, 2011	

Major Issues

As already stated, Jharkhand is one of the recently formed states of the Indian union. Like any new administrative entity, it also faces a number of issues. Some of these issues are as follows:

- ***Poverty***: Jharkhand is the fifth poorest Indian state with 51.6% rural people below the poverty line (BPL).
- ***Depleting Natural Resources:*** It has a large proportion of tribal communities which are highly dependent on the natural resource base for their survival and their livelihood systems revolve around forests, agriculture, livestock and wage labour. Degradation of forestlands

due to uncontrolled grazing, illegal logging and misapplication of forest policies are reducing the availability of NTFPs to the tribal communities.

- ***Reduced Agricultutral Output:*** Declining fertility of soils, increasing incidences of drought and seasonal shifts in rainfall patterns are affecting traditional cropping patterns and limiting harvests.
- ***Devolution of Powers:*** Although a number of specific State and National Acts, Policies and Programmes have been in place for some time, these are yet to make any perceptible impact on the conditions of tribal people in Jharkhand. The Panchayat Raj (Extension to Scheduled Area) Act (PESA) was approved in 1996 but implementation modalities to establish and empower the necessary institutions have been rather slow. It was only in 2010 that the Government of Jharkhand (GoJ) conducted Panchayat elections. Empowerment of these institutions by devolving finances and executive powers is yet to begin in the right earnest.[13]
- ***Left Wing Extremism (LWE):*** Furthermore, issues relating to a deficit in governance, leakage and malpractices, hindrance to productively develop forests and enjoy traditional user rights with control and supervision by the Gram Sabha as against the current system of overriding powers of the Forest Department, high tribal youth dropout rates prior to completing 10-12 years of schooling and lack of meaningful labour opportunities are feeding the discontent of tribal people. This situation is exacerbated by LWE which today afflicts 20 out of 24 districts in Jharkhand[14]. LWE on the one hand, mobilizes the discontent amongst tribal people to its cause, and on the other hand, prevents the government to deliver services to improve their quality of life and living conditions.
- ***Mortality:*** The state also has one of India's highest mortality rates for children under five. Child mortality rate of 69 per 1,000 is much higher than the national average. Infant mortality rate is 67 as against all India average of 57. Percentage of child immunisation is 34.2% as against India's average of 49.7%[15].
- ***Malnutrition:*** Four out of every 10 women in Jharkhand are undernourished. Half the children younger than three are considered malnourished. Half of children under age of 5 are stunted and one-third of children are wasted or too thin for their height. About 57% are underweight due to both chronic under nutrition, worse nutritional status than children in most other states in India.[16]
- ***Water & Sanitation:*** The coverage of rural water supply and sanitation services is very low in Jharkhand. Besides, there are water quality related issues too, with many places reporting Fluoride, Arsenic & Iron contamination. 49% of the population is dependent on hand pumps for their water-the remaining meet their needs from a variety of sources, such as, wells, ponds, rivers, streams, piped sources, etc. The sanitation facilities in the rural areas too leave much to be desired. Only 7.6% of rural households have toilets in their houses. The situation is even worse for SC (4.3%) and ST (3.7%) households. Only around 2% of the rural households have closed drainage facility.[17]

[13] IFAD/India-Jharkhand Tribal Empowerment and Livelihood Project Project Design Report-Appraisal- Main Report, 2012
[14] http://www.satp.org/satporgtp/countries/india/maoist/
[15] IFAD/India-Jharkhand Tribal Empowerment and Livelihood Project Project Design Report-Appraisal- Main Report, 2012
[16] *Ibid*.
[17] Census, 2011

1. 2 Water and Sanitation – Current Initiatives

In spite of over two decades of targeted approach towards providing water and sanitation services to the rural households, achieving 100 percent population coverage in terms of piped water supply and household latrines remains a challenge. The National Rural Drinking Water Program (NRDWP) and the Total Sanitation Campaign, now rechristened as, Nirmal Bharat Abhiyan (NBA) are the flagship programs of Government of India (GoI) aimed at achieving the aforementioned target. These initiatives have started showing some results, although there still remains a long way to go before 100 percent population coverage for piped water and household latrines can be achieved.

As per the NRDWP, there are a number of states with less than 10 percent coverage of rural households with piped water supply and are lagging behind in many service parameters related to water and sanitation. To assist these lagging states, the Ministry of Drinking Water and Sanitation (MoDWS), GoI has developed a program for Rural Water Supply and Sanitation for Lagging States (RWSSP-LS) with the assistance of the World Bank. Phase I will be to the tune of US$1 billion (US$500 million from the International Development Agency [IDA]and US$500 million as Government of India's counterpart funding)[18].

Four States (Bihar, Uttar, Pradesh, Jharkhand, and Assam) are being taken up as part of the Phase I project. The goal of the World Bank project is to enhance the institutional capacity of MoDWS and participating states in delivering the RWSS-LS. The project aims to improve piped water coverage integrated with sanitation services through decentralized service delivery systems. It will be implemented through a special window of assistance under NRDWP.

1.2.1 Rural Water Supply and Sanitation Project (RWSSP)

The main objectives of **RWSSP** are: (a) to demonstrate the viability of cost recovery and institutional reforms by developing, testing and implementing the new decentralized service delivery model on a pilot basis; and (b) to build the State's capacity in improved sector management in order to scale up the new decentralized service delivery model State-wide. This will assist the Government in furthering its sector related goal of increasing the access of the rural communities/habitants, particularly the poor and socially disadvantaged groups, to drinking water supply and environmental sanitation services.

Key Elements of the RWSSP are:

- Placing GPs / VWSC / Scheme Level Committee and communities in the central role, supported by higher levels of PRIs, the State government and the local non-governmental and private sector, for facilitating, planning, implementing, monitoring and providing a range of O&M back-up services.
- Using sustainable, community or local government managed models for intra-GP RWSS schemes and using State-PRI / DWSC partnership models for multi-GP schemes. Putting water resources security as a core theme of the new model, including increased community management of scarce resources.
- Moving the RWSS sector to recovery of at least 50% O&M and replacement costs and initiating contribution to capital costs keeping affordability and inclusiveness in mind.

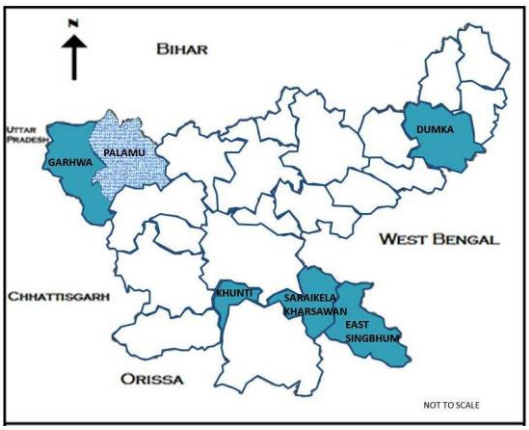
[18] Minutes of the Meeting for Project on Rural Water Supply and Sanitation for Lagging States, 14 June, 2012

- Moving towards metered household connections, with 24/7 water supply where feasible, as a basic level of service.
- Promoting professionalized service provision management models, and/or back-up support functions, for the different market segments (simple/small single village/GP schemes; large single village/GP schemes; multi village/GP schemes).
- Integrating water supply and sanitation, with effective sanitation promotion programs for achieving "clean villages".
- Establishing M&E systems with independent reviews and social audits.

1.2.2 RWSS Project in Jharkhand

The RWSS Project in Jharkhand will be implemented in six districts, namely, Garhwa, East Singbhum, Saraikela-Kharsawan, Khunti, Dumka and Palamau.

In the first five districts there will be four types of schemes, namely, Single Habitation Schemes (SHS), Single Gram Panchayat Schemes (SGS), Simple Multi Village Schemes (MVS) and Large Multi Village Scemes (MVS). Palamau will have only one Large MVS scheme. The district-wise details of schemes is given in the table below:



S.No.	Name of District	Scheme Type	Number of Schemes
1	**Garhwa**		
	New	SHS	211
		SGS	8
		Simple MVS	3
		Large MVS	0
	Sub-total		**222**
	Rehab	SHS	2
		SGS	0
		Simple MVS	2
		Large MVS	0
	Sub-total		**4**
	District Total		**226**
2	**Khunti**		
	New	SHS	31
		SGS	49
		Simple MVS	19
		Large MVS	0
	Sub-total		**99**
	Rehab	SHS	0
		SGS	4
		Simple MVS	0
		Large MVS	0
	Sub-total		**4**
	District Total		**103**
3	**Dumka**		
	New	SHS	18

		SGS	123
		Simple MVS	26
		Large MVS	2
	Sub-total		**169**
	Rehab	SHS	0
		SGS	12
		Simple MVS	0
		Large MVS	0
	Sub-total		**12**
	District Total		**181**
4	**Purbi Singhbhum**		
	New	SHS	120
		SGS	7
		Simple MVS	1
		Large MVS	0
			128
	Rehab	SHS	0
		SGS	2
		Simple MVS	0
		Large MVS	1
	Sub-total		**3**
	District Total		**131**
5	**Saraikela**		
	New	SHS	70
		SGS	20
		Simple MVS	11
		Large MVS	1
	Sub-total		**102**
	Rehab	SHS	0
		SGS	2
		Simple MVS	1
		Large MVS	1
	Sub-total		**4**
	District Total		**106**
6	**Palamu**	MVS	1
	Total		**747**

The financial requirement for the project over the next six years is presented in the table below:

Projected 6 years Financial Requirement				
Sl.No.	**Project Components**	**Units**	**Total**	**Population Served * ('000)**
1	**WATER SUPPLY**			
A	**NEW SCHEME**			
a1	SVS (single habitation)	Rs. CR	106.41	342.009
a2	SVS (multi hab within same GP)	Rs. CR	188.27	332.599
b	Simple MVS (2 to 3 GPs)	Rs. CR	206.22	250.966
c	Large MVS (more than 3 GPs)	Rs. CR	74.67	85.832

	Sub Total (A) NEW SCHEME	**Rs. CR**	**575.57**	**1011.405**
B	**Rehabilitation of Old Scheme**			
a1	SVS (single habitation)	Rs. CR	0.86	10.764
a2	SVS (multi hab within same GP)	Rs. CR	11.59	42.684
b	Simple MVS (2 to 3 GPs)	Rs. CR	9.29	31.120
c	Large MVS (more than 3 GPs)	Rs. CR	9.79	34.000
	Sub Total (B) Rehabilitation of Old Scheme	**Rs. CR**	**31.52**	**118.568**
C	**Water Quality Management**	Rs. CR	0.00	0.00
	Water Total (A+B+C)	**Rs. CR**	**610.89**	**1129.973**
2	**Environmental Sanitation**			
a	Drainage Scheme/ Lane Improvement Scheme	Rs. CR	56.61	
b	Community toilets	Rs. CR	0.00	
Environmental Sanitation Total (a+b)		**Rs. CR**	**56.61**	**1129.973**
3	**Household Sanitation**	**Rs. CR**	78.68	**1129.973**
4	**Support Organisation**			
a	Support Organisation (SO/NGOs)/ Engg. Support (Design Consultancies)/ IEC	Rs. CR	13.82	
Support Organisation Cost Total		**Rs. CR**	**13.82**	**1129.973**
Total (1+2+3+4)		**Rs. CR**	**760.00**	**1129.973**

1.3 The Need for a Social Assessment of RWSSP-Jharkhand

The initial project inquiry reveals that project beneficiary profile is not homogeneous, rather, quite diverse comprising a number of sub-groups identifiable on the basis of their tribal–non-tribal status, ethnicity, gender, differential endowment, different economic groups and other regional features. The Project needs to address the requirements of all the sub-groups, with special attention towards the tribal poor and other socially excluded sub-groups in some areas. Besides, there are a large number of stakeholders, some internal and others external to the project, who would have varying degrees of influence and impact on project activities and outcomes. This makes it necessary for the project to provide a framework for participation of all key stakeholder groups and enable solicit their contributions towards project design and delivery mechanisms. To this effect, as part of the project preparation this social assessment has been undertaken.

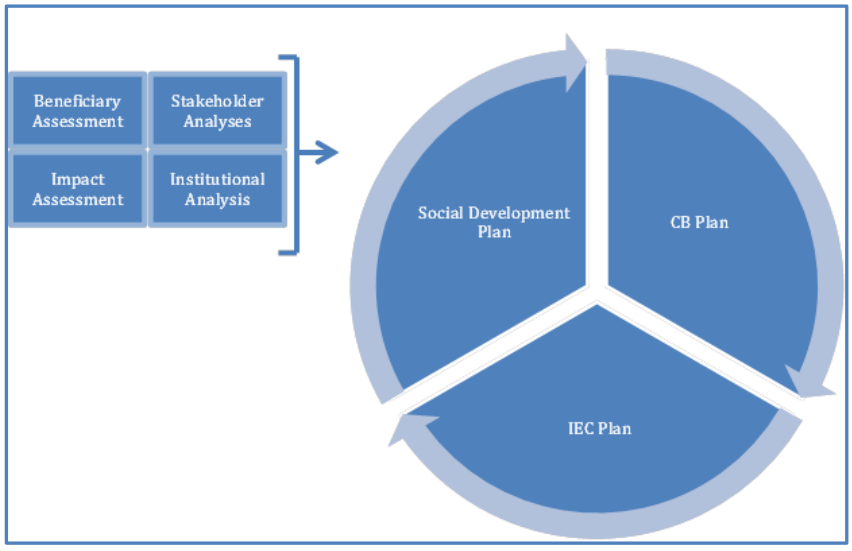
1.3.1 Objectives and Scope of the Social Assessment

The objective of this assignment is to assess the possible social impacts of the proposed project interventions; develop measures to mitigate negative impacts and enhance positive impacts; examine the legal, policy and institutional aspects to judge their suitability for the sustainability of

the intervention. The scope of the assignment is expanded to cover aspects related to capacity building, communications strategy and gender inclusion in general and for the PRI in particular.

The **assignment** consists of three components schematically represented in the following diagram:

D. The Social Assessment Study
E. Capacity Building
F. IEC



A. The objective of the **Social Assessment Study** is to examine:

1. The present condition of the villages in general in terms of education, income and housing the project beneficiaries' assessment on the current status of rural water supply and sanitation management and Services, The linkages thereof with governance mechanisms and PRI functioningspecifically the water supply and sanitation arrangements and the diseases caused by unhygienic water and insanitary conditions.
2. Stakeholder Analyses, Identifying stakeholders at different levels, Mapping Key Expectations, Impacts, Issues and Concerns as related to each stakeholder and the subgroups thereof
3. Impact Assessment, Identifying positive and negative social impacts likely to occur for different sub-groups or beneficiaries as a result of project interventions, Assessing and prioritizing impacts based on their significance,
4. Suggesting measures to minimize negative impacts and derive the maximum from positive impacts.
5. Analysis and Assessment of Risks, from ascertaining and analysing the key social risks, internal and external, to the project, measures to address them were developed. From the analysis and assessment, the elements for a Community Driven Development (CDD) approach will be built duly listing issues and the suggestive measures towards building CDD approach.
6. Rules for securing lands
7. Identifying issues that need to be taken into account, particularly, relative to ST areas. To this extent, a Tribal Development Plan (TDP) will be prepared in accordance with the Bank's OP 4.10.
8. Gender Vulnerability and Mainstreaming:
    - 'Good practice on gender and sanitation', provides success story of gender mainstreaming in World Bank supported water supply and sanitation project in various countries. In this

study also gender was specifically focused as tribal societies are often matriarchal and play a vital role.

- Carrying out a gender vulnerability analysis to develop a detailed understanding of the issues involved. The main issue is to ensure access for these groups to services and decision making process. Based on the findings develop strategies to enhance the participation of these groups in the implementation of the water and sanitation sector services.
- The awareness of the women regarding the connection between clean drinking water, sanitation and incidence of diseases.

B. The Capacity Building Plan

1. General Assessment of the existing capacity of sector institutions to face the new functions, in terms of personnel, knowledge instruments, information systems, procedures etc. This would include financial management systems, planning systems and operational and administrative functions.
2. Conduct Training Needs Assessment to assess the training / learning requirements of the personnel of the RWSS sector institutions and Panchayati Raj Institutions at various levels (based on an identification and analysis of the gaps), for enabling them to perform their functions effectively, efficiently and economically.
3. Prepare Capacity building strategy and plan with an inventory of existing institutions in the State (public or private) including WSSO/CCDU and assess their resource capacity to undertake capacity building for the project and prepare a short list of institutions for sector institutions and Panchayati Raj Institutions personnel along with their strengthening requirements (if need be) thereof.
4. An action plan capacity building formulation including an indicative budget for the proposed activities and a time line.
5. the organization, participation levels and education of panchayat members and also of the traditional village level tribal institutions
6. Assessment of the village level functionaries ability to set and to collect user charges in a fair and equitable manner.

C. The objectives of the IEC

1. The objectives of this task is to develop a communications strategy and action plan to support GoJ, in the project states (nodal line departments, PRIs and other related institutions) and local communities in planning, implementation and subsequent operations of the project.
2. Identify key stakeholders (State, District, Block, Gram Panchayat, Village levels).
3. Carry out communication needs assessment – For different stakeholder groups prepare a communications need assessment identifying clearly their assumptions/perceptions and develop key messages that need to be delivered and the method/mode/media and frequency/timing.
4. Institutional analysis and inventory - Identify existing local level institutions (formal/Informal) including non-government organisations, their strengths and their present potential role in carrying out communication activities.
5. Develop overall communications strategy and action plan for different stakeholders
6. The awareness of the officials as part of the PRIs who will be entrusted the responsibility of the asset maintenance.
7. The role of social interactions in their life and how these will be affected by the project.

1.4 Approach and Methodology

1.4.1 Approach

The study has been conducted using participatory approach throughout. It has taken into account all the stakeholders at all levels i.e. from the policy level to field operations level. Consultation with the identified stakeholders has been ensured during all stages of the study.

1.4.2 Methodology

The overall methodology is summarized in the following matrix:

Methodology Matrix

Stage	Methodology	Major Activity
1	**Horizon Scanning**	
A	Project Initiation	Meeting the Client and Team Mobilization
B	Desk Review	Study of all Secondary Reports and Data
C	Area Visit	Familiarization with project areas
2	**Survey Design**	
A	Sample design	Selection of representative sample
B	Design of Study Tools	Household level Questionnaire, GP level Questionnaire, FGDs
C	Orientation and Training	Training of the Team Members for survey
3	**Field Survey**	
A	Quantitative Survey through Questionnaires	Data collection from Sample households and GP level functionaries
B	Qualitative Survey through FGD, Interview, Stakeholder's consultation	Information collection from different Stakeholders
4	**Data Entry and Processing**	
5	**Analysis**	
A	The Social Needs Assessment and Mitigation Plan	• Stakeholder Analysis • Beneficiary Assessment • Impact Assessment • Institutional Analysis • Risk Assessment • Social safeguard and mitigation management plan
B	The Training Needs Assessment and Capacity Building Plan	• Training Needs Assessment Plan • Development of Capacity Building Strategy • Design of Capacity Building Strategy
C	The Communication needs Assessment Study and	
	Report Preparation and submission	Writing of the report and submission to the Client

Stage 1: Horizon Scanning

This phase included the following tasks:

- Initial interaction and meetings with relevant state officials
- Collection and desk review of all information related to the RWSS sector in Jharkhand
- Scheduling of visits and workshops with client/targeted group
- Exploratory visits to project areas
- Team Mobilisation

Stage 2: Survey Design

A. Sample Design

- The Survey took place in the 3 regions based on the agro-climatic, socio economic and RWSS scenario and as specified in the brief. The regions are a) East Singhbhum and Khunti b) Saraikela and Garhwa and c) Dumka
- As per the TOR, 30 GPs were to be selected from across the 3 regions. 12 GPs from two regions and 6 GPs from one region.
- **Selection of GP:** The GPs were selected based on the agreed criteria in each region with client suggestion.
- **Selection of Villages**: Two villages were selected from each GP, one close to the GP office and one away from the GP office. The other criteria for selection of villages were, water quality, water availability, distance covered for fetching water, tribal and non-tribal dominated villages, forest villages, availability of current government water schemes or not etc. The names of final villages were decided with the help and information of District Water and Sanitation Coordinators and the PMU appointed by the state based on the above criteria.

A1 The Quantitative (Household) Sample

- **Selection of Households**: 16 HHs were selected from each village. The details of selection is described in the following table. The head of the household is generally selected for the interview.
  The following number of respondents was targeted for Interviews

Districts	GPs	Villages	Households
East Singhbhum&Khunti	12	12x2=24	12x2x16=384
Saraikela and Garhwa	12	12x2=24	12x2x16=384
Dumka	6	6x2=12	6x2x16= 192
Total	**30**	**60**	**960**

- **Study Tool (Quantitative)**-Structured Questionnaire
- **Target Group**: Household members (community in general)
- **Gender balance in selection of respondent with atleast 1/3 female respondents**

A2. The Qualitative Sample

Sample: Qualitative

Methodology	GPs	Villages
Focus Group Discussion with Community (Both Men and Women)	30	30x1=30
Interaction with SHG/Women's Group	30	30x1=30
Interaction with VHSNC/ PRI for Sustainability Monitoring	30	12 villages randomly selected

A. **Development of Study Tools:** All the study tools including those of checklist for discussion with all stake holders were prepared and field tested. This included structured questionnaires, checklists for PRIs (FGDs) and VWSC members and SHG members.
B. **Appointment of Field Staff. T**eams were deployed for the study and each team was headed by a supervisor.
C. **Training of Field Investigators, supervisors:** All members of the team were given rigorous training on collecting information and administration of the survey tools. The training involved both classroom sessions and hands on field training.

Stage 3. Field Survey

A. The Quantitative Survey

As already indicated, quantitative data from the project areas were collected from households based on a **Household Survey Questionnaire** and from Gram Panchayat officials based on a **GP Level Questionnaire.** The former covered all 960 selected households in the sample and dealing with household particulars, water use, incidence of diseases and other issues related to their willingness to participate in the maintenance of the facilities. The latter covered all the 60 selected villages and examined village resources and capabilities and levels of participation of community.

B. The Qualitative Survey

The qualitative review is the most important component of the study which tried to capture the social implication affecting the lives of rural poor.

- **Focus Group Studies:** The Focus Group Studies were carried out in one village from all the 30 selected GPs. Therefore, FGD will take place in 30 villages. The exercise will map the settlement pattern within each GP. The information on *settlement pattern*[19] of Jharkhand will be fed from these state data as well as secondary research. The FGD (conducted with both men and women) will provide information on demand, capacity, impact, inclusion, O&M, gender inclusion and capacity, community driven approach, sanitation practices (see FGD guidelines and questions)and mitigation measures to be taken for resettlements besides use of water resources and disease pattern due to water related problems including current level and expectations.

  The FGD is a key methodological tool in a formative study for a Community Driven Development (CDD) Programme because it is important to elicit the view of the villagers regarding the project particularly with respect to the crucial importance of safe drinking water as well as their willingness to pay for and participating in implementation, operation and maintenance of the project. The FGD is also a key element in developing an Information Education and Communication (IEC) strategy for the project.
- **Interaction with SHGs and Women's Group:** One SHG was selected (wherever available) from one of the selected villages within a GP. In total 30 groups were interacted. The SHG group members' communication helped to understand their role in the demand generation and participating in O& M activities in the community.
- **Interaction with Village Water and Sanitation Committees (comprising PRIs) and Jalsahiya:**

[19]Jharkhand is one of the most rural states in India. Dispersed villages are characteristic of Chotanagpur, where settlement is confined largely to river valleys, deforested peneplains (areas reduced almost to plains by erosion), and mineral and industrial belts. The indigenous groups are concentrated mostly in the districts of Ranchi in central Jharkhand, Dumka in the northeast, and East and West Singhbhum in the southeast.Source:"Jharkhand". ***Encyclopædia Britannica. Encyclopædia Britannica Online.*** Encyclopædia Britannica Inc., 2012. Web.15 Nov. 2012, <http://www.britannica.com/EBchecked/topic/736533/Jharkhand/281150/Settlement-patterns).

There were interactions in all the 30 GPs with VWSC and Jalsahiyas. Questions in particular related to s*ustainability were probed* with these stakeholders to find answers of critical questions of long-term sustainability of rural water supply and sanitation service delivery and how the physical and social infrastructure created in rural communities will continue to function effectively and efficiently in future. Interaction with the Water and Sanitation Communities also included understanding the key mediums to develop and deliver the IEC.

- **Discussions with Concerned Officials, staff line departments, consultants**

  Detailed interactions took place with concerned officials, staff line departments, consultant and NGOs. These interactions took place at different stages. Discussion took place at the state level and they were apprised of the progress constantly. The staffs dealing with RWSS were interacted at state level, district level, block level, GP level and village level.

- **NGO/Training Institutes/ Academic consultations: C**onsultation took place with prominent civil society, and academic institutes and training institutes working in field of water and sanitation in the state. International agencies like UNICEF and Global Sanitation Fund also provided brief of their work in Jharkhand.

Stage 4 : Data entry and Processing

The field team supervisors carried out the day to day scrutiny of filled up questionnaires during the fieldwork. Collected data will be dispatched for data entry. The forms will be scrutinized and coded by the editors and the data entered using a data entry package.

Qualitative data will be entered after completion of the survey and it will be analyzed and summarized by designated members of the core team.

Stage 5: Analysis

The analysis of data would be structured under four heads:

- Social Assessment
- Capacity Building
- Information Education Communication

1.4.3 Organization of the Report

This report has been organized in twelve chapters. First chapter gives introduction to the report which includes location, geographic, physiographic profile, demographic profile and socio-economic profile of Jharkhand. It provides the key issues being faced by the state, including those in the rural water supply and sanitation sector and information on the proposed RWSSP in the state. It also includes need for social assessment, scope of work and key tasks, and approach & methodology adopted for this study.

The Second chapter deals with the assessment of the intended beneficiaries in selected districts of the study and includes the physiographic profile, socio-economic conditions, systems of local governance, . It presents water supply coverage, sanitation, water sources, quality of water, user treatment and handling, persons engaged in collecting water, and satisfaction about the water supply. It also covers the aspects of sanitation such as latrine usage, drainage, disposal of solid waste and issues related to water and sanitation.

The Third chapter details the present status of rural water supply and sanitation in the project districts in terms of quality and availability. Chapter Four deals with the institutional arrangements proposed under RWSSP-Jharkhand. The Fifth chapter details stakeholder analysis and includes the

various stakeholders at the state, district, block and village levels, their expectations from the project and issues. Chapter Six details the gender related assessment of the project and also includes a few case studies. The Seventh chapter presents the anticipated positive and negative impacts of the project. Chapter Eight deals with the major risks and assumptions under the project and their mitigation measures.

The Ninth chapter deals with social safeguards under OP 4.10 and OP 4.12 and their relevance for RWSSP Jharkhand. Chapter Ten focuses on the capacity building needs and proposed measures. Chapter Eleven includes the communication framework proposed under the plan and the Twelfth chapter details the M&E plan for the project.

Tribal Development Plan proposed under the project is a separate document. It includes a profile of the districts proposed under RWSSP Jharkhand and the blocks falling under Schedule V of the constitution meant for safeguarding the rights of the tribal peoples. It also describes the socio-economic condition of the tribal living in the study districts, the challenges faced by them in the area of water and sanitation and a plan to address the challenges under the RWSSP Jharkhand.

2. BENEFICIARY ASSESSMENT

The table below presents the change in key demographic indicators over a 10 year period (2001-2011)

2.1 Demographic Profile[20]

Description	2011	2001
Approximate Population	**3.29 Crore**	**2.69 Crore**
Actual Population	**32,966,238**	**26,945,829**
Male	16,931,688	13,885,037
Female	16,034,550	13,060,792
Population Growth	**22.34%**	**23.19%**
Sex Ratio	**947**	**941**
Child Sex Ratio	943	966
Density/km2	**414**	**338**
Density/mi2	1,071	875
Literacy	**67.63 %**	**53.56 %**
Male Literacy	78.45 %	63.83 %
Female Literacy	56.21 %	38.87 %

The sex ratio in Jharkhand has improved from 2001 to 2011, unlike most of the states in India. It is also useful to note that female literacy rate has increased from nearly 39% to 56% over the decade.

2.2 Sex Ratio, Population Growth & Literacy[21]

Description	Rural	Urban
Population (%)	**75.95 %**	**24.05 %**
Total Population	**25,036,946**	**7,929,292**
Male Population	12,775,468	4,156,220
Female Population	12,261,478	3,773,072
Population Growth	**19.50 %**	**32.29 %**
Sex Ratio	**960**	**908**
Child Sex Ratio (0-6)	952	904
Child Percentage (0-6)	16.96 %	12.49 %
Average Literacy	**62.40 %**	**83.30 %**
Male Literacy	74.57 %	89.78 %
Female Literacy	49.75 %	76.17 %

Nearly 76% of the population of Jharkhand lives in rural areas. The sex ratio of rural Jharkhand is better that urban. Female literacy rate is quite low in rural areas compared to urban Jharkhand.

2.2 Economic Activity

The state is richly endowed with minerals, such as bauxite, mica, graphite, quartz, iron, copper, and magnetite. About 40% of the country's total mineral resources are located in the state. It is recognized as a region of great potential. The state is also the only producer of uranium and coking coal in the country. The state has an abundance of water, energy reserves, forests, and fertile land which can help the state become one of the most developed states in the country. The table below shows the different activity of workers in the state.

[20] Census 2011

[21] *ibid*

2.3 Economic Activity

Economic Activity by Number, Gender, Category of Workers			
Number of Workers	**Nos.**	**Category of Workers**	**Nos.**
		Cultivators	3889506
Persons	10109030	Agricultural Laborers	2851297
Males	6659856	Household industries	480965
Females	3449174	Other Workers	2937262
Work Participation rate (%)	37.5	Cultivators (%)	38.5
Number of main workers	6446782	Agricultural Laborers (%)	28.2
Number of marginal Workers	3662248	Household Industries (%)	4.3
Number of Non- Workers	16836799	Other Workers (%)	29.1

Source: Jharkhand.gov.in

The analysis of rural labor market participation reveals five main conclusions. They relate to: (i) the subsidiary status of farming; (ii) the predominance of non-agricultural casual labour as the main form of employment; (iii) a limited role for rural non-farm self-employment; (iv) the relatively higher incomes of non-agricultural (especially salaried) workers; and (v) an increasing rate of distress out-migration. *First*, farming is largely seen as a subsidiary occupation both for the poor and the non-poor with 39 percent of the rural working population regarding it as their subsidiary occupation and only 12 percent considering it as their main occupation. In contrast, rural wage labour is the main occupation for 61 percent and the subsidiary occupation for 20 percent of the rural working population. This is in sharp contrast to irrigated agriculture in the plains such as in West Bengal, Bihar and Bangladesh, where farming tends to be the main occupation of at least 40—60 percent of rural households while the corresponding figure for rural wage labour is in the range of 25—33 percent. The low variation in this respect across different agro-ecological regions suggests that the relatively low share of farming in Jharkhand is not the outcome of agro-ecological constraints alone[22].

2.3 Land and Assets

An average rural household in Jharkhand is in a disadvantaged position with respect to access and control of assets. Assets, as defined in terms of the rural livelihoods framework, include natural, human, physical, financial and social assets. The most important physical asset, land, shows highly skewed distribution in rural Jharkhand. According to the 2005 Rural Jharkhand Base Line survey data, the bottom 43 percent of the rural population, as per the land ownership scale, has only 4 percent of land, while the top 8 per cent has 41 percent. The average size of landholdings has declined over the 10-year period from 2.25 acres to 1.64 acres, which is a very sharp drop by any standard. This has been accompanied by growing land alienation, as indicated by the rising Gini for landownership from 0.65 to 0.70[23]. The relatively high inequality in land distribution is surprising given the colonial legacy of legal restrictions on the transfer of tribal land ownership in the state. It is quite possible that the 2005 RJBS data has overstated the inequality of landownership. Estimates based on the 55th round of NSS indicate, however, that the concentration of landownership in rural Jharkhand is indeed considerably skewed notwithstanding the legal protections of tribal land, as originally envisaged in the Chhotanagpur and Santhal Pargana Tenancy Acts. The estimated Gini inequality of rural land ownership for the state in 1999/00 was 0.64, which is admittedly lower than the all-India average of

[22]Estimated from the 2005 Rural Jharkhand Baseline Survey (RJBS), quoted in World Bank Jharkhand Development Report,2007

[23]Ellis (2000)

0.71, but would still appear to be on the high side (given the initial condition of tribal land ownership). More importantly,inequality in land distribution is possibly on rise in the recent years through illegal (distress) land transfers[24].

2.4 Culture, Religion and Language

Jharkhand is a tribal dominated state. The worship of Nature has been given utmost importance in every sphere of life and culture. Branches of sacred trees are brought and ceremonially planted in the courtyards mostly by the tribal population. Karma puja, Jitia Puja, Sarhul are a few examples of worship. Poush Mela or Tusu Fair is a significant occasion celebrated during the Makar Sankranti wherein brightly coloured decorated symbolic artifacts of folk deity are carried by the People. This is also a season for folk harvesting festival.

As per the 2001 census Hinduism is followed by 68.5% of the population of Jharkhand. Islam is followed by 13.8% of the population and ***the animisitic Sarna religion is practised by 13% of the population***. Christianity with 4.1% of the population is the fourth largest religious community in Jharkhand. Jainism, Buddhism and Sikhism are all practised, but are less than 1%[25]. Most members of the scheduled tribes of Jharkhand follow the animistic Sarna religion. Sarna is the Mundari word (a local tribal language) for 'Sacred Grove'. Sarna involves belief in a great spirit called the Sing Bonga. Tribal belief holds the world to be inhabited by numerous spiritual beings of different kinds. Tribal communities consider themselves as living and doing everything in close association with these spirits. Rituals are performed under the groves of Sal trees called Sarna (also called Jaher), where Bonga is believed to appear or express himself.

There are three language groups spoken in Jharkhand. They are the Munda languages, (Korku, Mundari, Kurmali, Santhali, Bhumij, Ho and Kharia) the Dravidian languages (Oraon, Korwa and the Paharia (Malto)) and the Indo-Aryan Languages like the Nagpuri, Angika, Sadri, Bhojpuri, Khortha, Hindi, Oriya, Bengali and Urdu. Recently the Jharkhand government has also made knowledge of at least one of the four tribal languages mandatory for its government officials. The four tribal languages among which the officials must learn one, are Mundari, Kurukh, Ho and Santhali. Santali is spoken predominantly in Dumka, Jamtara, Pakur, Godda, Sahibganj and in parts of East Singhbhum and Saraikela-Kharsawan districts. Mundari is also spoken mainly in Khunti and parts of Ranchi, West Singhbhum, Gumla, Simdega and Latehar districts. Ho is mainly spoken in West Singhbhum and Saraikela-Kharswan districts. These three languages can be considered as sister languages as all of them are grammatically similar and 80%–90% of the words used are same. Most members of the scheduled tribes of Jharkhand follow the animistic Sarna religion. ***Sarna is the Mundari word for 'Sacred Grove'***. Sarna involves belief in a great spirit called the Sing Bonga. As per the 2001 census the animistic Sarna religion is practised by 13% of the people.

2.5 Traditional system of Local Governance

In Jharkhand basically four forms of traditional governance system exist in some form or other in different tribal regions.

- Munda- Manki system in Ho areas.
- Parha system in Oraon villages.
- Munda- Manki system in Khuntkatti Munda dominated areas.

[24]http://www.pucl.org/Topics/Dalit-tribal/2004/adivasi-jharkhand.htm)

[25]http://censusindia.gov.in/Census_Data_2001/Census_data_finder/C_Series/Population_by_religious_communities.htm

- Manjhi Pradhan system in Santhal[26].

These institutional systems will also have to be considered for any planning and implementation of the water and sanitation schemes as they have substantial influence in the tribal areas in their respective communities and people often have more faith in these than PRIs and VWSCs.

2.6 Profile of Study Locations

2.4 Demographic Profile

Districts	Total Population	Males	Females	Sex Ratio	Literacy rate Persons	Literacy rate Males	Literacy rate Females	SC %	ST%
Jharkhand	32966238	16931688	16034550	947	67.63	78.45	56.21	11.8	26.3
Dumka	1321096	669240	651856	974	62.54	75.17	49.60	7.35	39.89
Garhwa	1322387	683984	638403	933	62.18	74.00	49.43	23.88	15.35
Khunti *	530299	265939	264360	994	64.51	75.33	53.71	-	-
PurbiSingbhum	2291032	1175696	1115336	949	76.13	84.51	67.33	4.75	27.85
Saraikhela-Kharsawan **	1063458	543232	520226	958	68.85	81.01	56.19	-	-
Palamau	1936319	1003876	932443	947	65.5	76.27	53.87	27.55	9.0

Source: Census 2011 and for SC and ST – Census 2001

***The district of Khunti was carved out of Ranchi district on 12 September 2007**

****This district was carved out from West Singhbhum district in 2001**

	Total population	Rural	Urban
Jharkhand	32966238	75.95	24.05
Garhwa	1322387	94.73	5.27
Purbi Singhbhum	2291032	44.45	55.55
Dumka	1321096	93.18	6.82
Khunti	530299	91.49	8.51
Saraikela-Kharsawan	1063458	75.71	24.29
Palamau	1936319	88.34	11.66

2.5 Fifth Scheduled Areas

Districts	Divisions	Blocks	Gram Panchayats	Villages	Nos of Blocks in Scheduled Areas	
Garhwa	3	19	193	907	1	Bhandaria block
Purbi Singhbhum	2	11	231	1810	9	Golmuri-Jugsalai, Patamda, Potka, Dumaria, Musabani, Ghatsila, Dhalbhumgarh, Chakulia and Bahragora blocks
Dumka	1	10	206		10	Saraiyahat, Jarmundi, Jama, Ramgarh, Gopikandar, Kathikund, Dumka, Sikaripara, Raneswar and Masalia blocks
Khunti	1	6	86	884	6	Arki, Khunti, Murhu, Karra, Torpa, Rania blocks
Saraikela-Kharsawan	1	8	120	120	8	Govindpur(Rajnagar), Adityapur(Gamhariya), Saraikela, Kharsawan, Kuchai, Chandil, Ichagarh and Nimdih blocks
Palamau	3	13	283	1918	-	-

[26]Anon; Participatory Development & Traditional Democratic Institution; Pearl Shramjivi Unnayan, Ranchi

2.6 Tribes, Language and Festivals

Districts	Major Tribes	Language spoken	Major festivals
Garwah	Oraon, Chero, Korwa and Parahiya	Hindi and Oraon	Sarhul, Karma and Burih Karma
Purbi Singbhum	Santha,Munda,Ho, Bhumij,Kharia and sabar	Mundari. Santhali, Mahili, Bhumij and Kharia, Oraon,Bengali,Oriya	Sharhul, Chait-Ganjan, Ind-Karam, Bandna, and Makar or TusuParab
Saraikela Kharsawan	Ho, Santhal and Oraon.	Ho	Maghe, Baa , Hero ,Jomnamah Kolom, Damurai and Batauli
Khunti	Munda, Oraon and Christians	Mundari, Birhor	Pahni
Dumka	Santhal,Ho	Santhali, Ho	Sahrai,BahaMaghe,Baba Bonga, Sahrai, Ero, Asaria, Hariar, Namah, Ma

2.7 Primary Data Analysis: Household Details

The present section gives an analysis of the finding of the field survey of the beneficiaries status with regard to their socio-economic profile, access to water and sanitation, gender finding and related subjects on capacity need and awareness levels. The sample villages were drawn keeping in view not only the three geographical areas which are distinct from one to another on some parameters mostly on tribal and non-tribal but also in case of economic status and availability of water. The coverage of water and sanitation supply, safe sources, partial reach of government schemes to fully reached, atleast for hand pumps etc.

Table 2.7: Education

Education Level of All respondents		
Levels	Male in %	Female in %
Illiterate	29	79
Literate but no formal schooling	4	-
Below primary	5	-
Primary	14	14
Upper primary	18	-
Secondary-Matric	19	-
Higher Secondary	6	7
Graduate	3	-
Post Graduate	1	-
Diploma	0	-
Grand Total	100	100

Table 2.8: Average family size in selected districts

District	Avg Family Size
Dumka	5.59
East Singbhum	6.26
Garhwa	7.04
Khunti	5.90
Saraikela Kharsawn	5.85

2.10 Religion and Social Stratification in selected districts

In all the districts, Hinduism is the majority of the religion. In Garhwa villages, 1/3 of the population has reported to be Muslims. Khunti has the highest Christian population at 24%.

Table 2.9: Percentage Distribution based on Religion

District	Hindu (%)	Muslim (%)	Christian (%)	Others (%)
Dumka	91.7	1.6	6.8	0.0
East Singbhum	93.2	1.6	3.6	1.6
Gadhwa	63.5	32.3	4.2	0.0
Khunti	66.7	9.4	24.0	0.0
Saraikela-Kharsawan	86.5	9.9	3.6	0.0
Total	80.3	10.9	8.4	0.3

In the selected districts and sample villages, Dumka, East Singhbhum and Khunti have majority of tribal population, while in While Garhwa and Saraikela Kharswan has majority of the OBC population.

Table 2.10: Social stratification

District	SC (%)	ST (%)	OBC (%)	General (%)
Dumka	8.9	57.8	30.2	3.1
East Singbhum	12.5	50.5	30.2	6.8
Gadhwa	9.4	13.0	57.3	20.3
Khunti	13.0	44.8	38.0	4.2
Saraikela-Kharsawan	6.8	24.0	61.5	7.8
Total	10.1	38.0	43.4	8.4

2.11 Occupation, Work force, Employment status

Most of the people have responded that (over 40%) they are self employed in agricultural work with highest being in Dumka at 52.1%. East Singhbhum and Saraikela Kharsawan has highest proportions of person with regular salaries or wage employment which are 27.6% and 24.5% respectively.

Table 2.11: Employment Status

District	Self-employed in Ag/ Pry (%)	Ag Wage Labour (%)	Non Ag Wage Labour (%)	Self-employed in Non-Ag (%)	Regular Salary/ Wage Employment (%)	Other Sources (%)
Dumka	52.1	9.9	22.4	5.7	7.3	2.6
East Singbhum	40.6	6.3	18.8	4.7	27.6	2.1
Gadhwa	47.4	5.2	25.0	4.2	14.1	4.2
Khunti	51.6	6.3	20.8	6.8	12	2.5
Saraikela-Kharsawan	40.6	7.3	16.7	9.9	24.5	1.0

Table 2.12: BPL Status

District	Possess BPL card and shown it to the Interviewer(%)	Possess BPL card but not shown it to the Interviewer(%)	Possess No BPL Card (%)
Dumka	40.1	17.7	42.2
East Singbhum	40.1	7.8	52.1
Gadhwa	50.0	10.9	39.1
Khunti	40.6	16.1	43.2
Saraikela-Kharsawan	46.9	5.7	47.4

District	Possess BPL card and shown it to the Interviewer(%)	Possess BPL card but not shown it to the Interviewer(%)	Possess No BPL Card (%)
Total	43.5	11.7	44.8

In all the selected districts more than 43.5% of the people have BPL cards with the highest in Garhwa with 61% indicating that majority of the population are in the BPL category in all the selected districts.

2.12 Land and Assets

Among the interviewed people, Saraikela has 26% of population with no land ownership other than household and 63.6% have less than 1 hectare of land. While in Dumka and Khunti only 7.3% and 7.8% have reported not to own any land other than house. Data shows that majority of the people have very small amount of land.

Table 2.13: Land Ownership other than house

District	No Land (%)	less than 0.02 ha (%)	0.02 ha to less than 1.00 ha (%)	1.00 to less than 4.00 ha (%)	4.00 to less than 10.00 (%)	10.00 ha or more (%)
Dumka	7.3	44.3	43.8	3.6	1.0	0.0
East Singbhum	18.8	45.3	26.0	8.9	1.0	0.0
Gadhwa	7.8	31.3	47.4	12.0	1.6	0.0
Khunti	12.5	40.1	39.1	6.8	1.0	0.5
Saraikela-Kharsawan	26.0	39.6	24.0	10.4	0.0	0.0
Total	14.5	40.1	36.0	8.3	0.9	0.1

53.1% of the surveyed people have mobile phones in their household. More than 76% population also owns a bi-cycle. More people have access to television than radio.

Table 2.14: Household Assets:

District	Mattress (%)	Cot/ Bed (%)	Chairs (%)	Tables (%)	Electric fan in working condition (%)	Radio (%)	TV (%)	Sewing Machine (%)	Mobile / Phone (%)	Refrigerator (%)	Bicycle (%)	Motor Cycle (%)	Car/ Van/Jeep (%)
Dumka	98.4	82.8	61.5	22.9	25.0	1.6	27.6	16.7	36.5	5.2	76.6	10.4	0.0
East Singbhum	92.2	89.6	59.4	34.4	59.9	7.8	53.6	22.9	61.5	7.3	79.7	25.0	4.7
Gadhwa	98.4	87.0	79.7	36.5	39.6	2.6	37.0	20.8	65.6	4.7	80.2	18.2	0.5
Khunti	95.8	93.2	61.5	30.2	32.8	2.6	26.6	17.7	44.8	7.3	79.7	14.6	0.5
Saraikela-Kharsawan	92.7	88.5	57.3	26.6	50.5	7.3	49.0	19.8	57.3	5.7	65.1	12.0	0.5
Total	95.5	88.2	63.9	30.1	41.6	4.4	38.8	19.6	53.1	6.0	76.3	16.0	1.3

2.13 Housing/Dwelling Ownership

100% of the interviewed people have their own house in all the districts but many of them have no other land beside house as mentioned earlier.

Majority of the people live in Kutcha houses except in Garhwa where 51% live in semi-pucca houses with also 15.6% living in pucca house again in Garhwa. Dumka has the lowest per cetnage of peole living in pucca houses at 5.2%.

Table2.15: Types of house ownership

District	Pucca (%)	Semi-Pucca	Kutcha
Dumka	5.2	46.4	48.4
East Singbhum	14.6	41.1	44.3
Gadhwa	15.6	51.0	33.3
Khunti	10.4	39.6	50.0
Saraikela-Kharsawan	15.6	39.1	45.3
Total	12.3	43.4	44.3

But it is interesting to note that overall nearly 84.1% of population has between 2-4 room in their houses. Majority of them overall 30.4% has 3 rooms. Only 7.5% overall population has only 1 room.

Table 2.16: No. of Rooms in the House

Districts	No. of rooms in the house							
	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0
Dumka	8.3	31.3	33.9	24.0	1.6	0.0	1.0	0.0
East Singbhum	6.3	29.2	31.8	20.3	8.9	3.1	0.0	0.5
Gadhwa	3.6	26.6	28.1	27.6	7.8	4.7	1.6	0.0
Khunti	13.5	31.3	27.6	19.8	5.2	1.6	0.0	1.0
Saraikela-Kharsawan	5.7	30.2	30.7	28.1	4.2	1.0	0.0	0.0
Total	7.5	29.7	30.4	24.0	5.5	2.1	0.5	0.3

Key Issues - Beneficiary Assessment

- Average family size in the selected districts is nearly six members per family
- Most people are self-employed in agriculture
- Most people hold BPL cards
- Most people have less than 1 hectare of land, thus living on mere subsistence level
- People spend substantial time and energy in collecting water
- Piped water coverage is very low or non-existent
- The quality of water accessed is not good enough
- There is not enough or adequate supply of potable water
- Coverage of household latrines are abysmally low
- Most people practice open defecation
- There is lack of awareness on water sanitation and health relationship
- Problem of waste and waste water disposal
- Timely repair and maintenance due to lack of local capacity
- Preference in employment to local people in water and sanitation work

3. RURAL WATER AND SANITATION STATUS

3.1 Water, Health and Sanitation

Access to safe drinking water and sanitation facilities is critical for the health of population in general,and women and children in particular A study conducted by USAID, found that the health related problems of women were mainly related to poverty, illiteracy, lack of resources, and lack of access to clean drinking water and sanitation. The same is true for the state of Jharkhand as well. Also, most often, women have less access to clean drinking water, bathing, and toilet facilities leading to drudgery, fatigue and morbidity Hence, it is critical that all households receive improved water and sanitation services. In Jharkhand it will be important that women are equally or preferably included in planning and management of water and sanitation services. The change will have higher impact if women decision-makers take charge to improve how water, sanitation, and solid waste disposal services are provided in the rural areas.

Many documents and reports at national and international level have agreed that poor access to water; poor water quality provision and poor sanitation facilities have adverse impact on health of human being. Water used for drinking purpose also contains bacteria, viruses, parasites as well as chemical contaminations, which leads to infections and intestinal diseases. Occurrences of diarrhea, dysenteries and typhoid are directly related to water quantity and water quality. More than 20 % of the children in Jharkhand suffer from diarrheal and acute respiratory infections[27].Further, insufficient quantity of water available with the household in rural areas more often than not, becomes a hindering factor in maintaining proper personal hygiene. In many parts of Jharkhand, water for domestic consumption is contaminated with fluoride, arsenic, iron, and TDS (Total Dissolved Solids . Intake of water with the fluoride content over a lifetime weakens bones and may lead to fracture of bones, skeletal flurosis and dental flurosis. Similarly, prevalence of open defecation practices and poor drainage system contaminate the water systems, resulting in increased instances of disease. The importance of the isolation of waste lies in an effort to prevent diseases which can be transmitted through human waste. Further, research indicates that poor sanitation also hampers the effectiveness of polio vaccine[28]. Improving water, sanitation and hygiene conditions is thus a major step towards reducing preventable diseases.

3.2 Water Resources in Jharkhand

The present scenario of ground water and surface water in Jharkhand is as follows[29]:

1. Ground Water Reserve of Jharkhand -	4992 M.C.M.
2. Surface Water -	25876.98 M.C.M.
3. Allocation for irrigation required by fields -	3813.17 M.C.M.
4. Industry Requirement -	4338 M.C.M.
5. Urban area requirement -	1616.35 lakh gallons
6. Availability in urban area -	734.35 lakh gallons

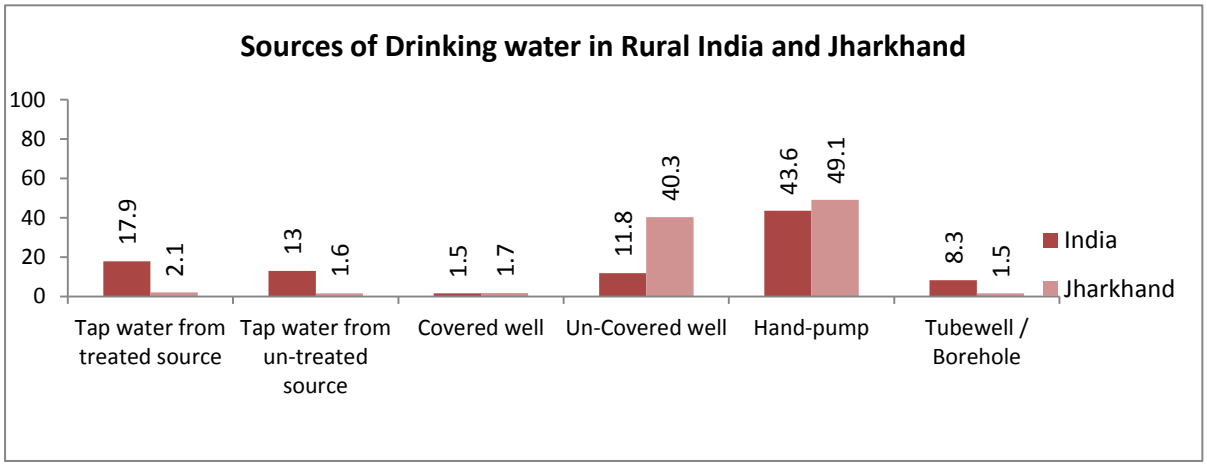
[27]http://www.unicef.org/india/Jharkhand_Fact_Sheet.pdf accessed on February 26, 2013

[28] Role of Marketing in Polio Eradication, Rahul Goswami

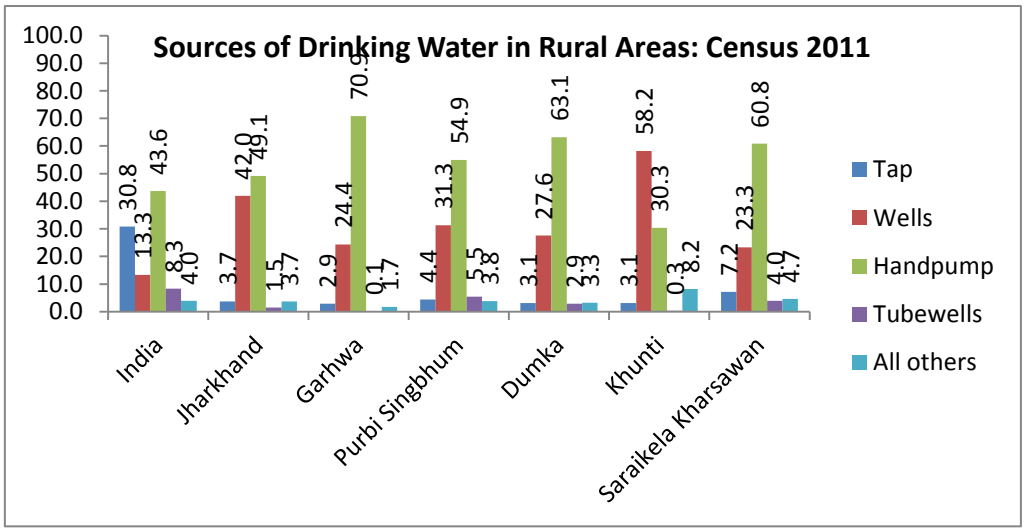
[29]http://wrdjharkhand.nic.in/Present%20Scenario%20of%20Ground%20Water%20and%20Surface%20Water%20in%20Jharkhand.pdf

Table 3.1: The water availability and usage in Jharkhand is as follows[30]:

Water Source	Figures in Million Cubic Meter
Dependable surface water (75%)	2,37,89
Availability of ground water	49,92
Utilization for domestic purposes	
• Surface water	82
• Ground water	5,56
Utilization for cattle surface water	59
Utilization for non-irrigation purpose	
• Surface water	8,12
• Ground water	5,56



In terms of household level arrangements, the bulk of Jharkhand's rural households cite dependence on un-covered wells (40.3%) and hand pumps (49.1%). Further, only 11.7 % of the rural Jharkhand households have access to drinking water within their own premises, about 51.9% within 500 m from their premises and the rest 36.4% more than 500 m away from their premises[31]. The chart below depicts the high dependency on hand-pumps across rural areas in the districts of Jharkhand except for Khunti (a new district), where people still depend on uncovered wells.



[30] Water Budget, Jharkhand Government, Table 1, culled information, source Jharkhand.gov.in
[31] Census 2011

Water quality issues are also emerging in the State with the Jharkhand RWSS Sector Assessment (2005) pointing to widespread iron content in several parts of the State. Fluoride contamination is also reported in some of the study districts selected under the world bank funded project in Jharkhand. The study districts have water quality problems mainly related to fluoride and, iron contamination. These issues were highlighted during the FGDs conducted in the six project areas. Population Coverage by Drinking Water in Selected Districts as on 01/04/2012

Table 3.2: Coverage of Drinking Water in Selected Districts:

S.No	District	Total Population				% of Total Population Covered with >= 40 LPCD				% of Total Population Covered with < 40 LPCD			
		SC	ST	GEN	Total	SC (%)	ST (%)	GEN (%)	Total (%)	SC (%)	ST (%)	GEN (%)	Total (%)
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	**DUMKA**	65581	592532	478821	1136934	99.98	99.72	99.81	99.77	0.02	0.28	0.19	0.23
2	**GARHWA**	277127	222212	645804	1145143	99.93	99.93	99.96	99.95	0.07	0.07	0.04	0.05
3	**KHUTI**	22666	349089	92199	463954	95.31	96.81	91.56	95.69	4.69	3.19	8.44	4.31
4	**PURBI SINGHBHUM**	86639	619413	432921	1138973	56.16	83.14	88.65	83.18	43.84	16.86	11.35	16.82
5	**SAREIKELA AND KHARSAWAN**	40699	341165	421104	802968	90.43	95.20	83.26	88.70	9.57	4.80	16.74	11.30
Total		**2811523**	**8032977**	**12120957**	**22965457**	**98.10**	**97.82**	**98.48**	**98.20**	**1.90**	**2.18**	**1.52**	**1.80**

Source: Physical Progress Report, National Rural Drinking Water Programme[32]

The above table depicts that the study districts are adequately covered by water supply at 40 LPCD, through hand pumps, open wells, etc. However, the field level enquiry reveals that these sources are either contaminated or at a distance from houses or have varying availability during different months of a year. Thus, piped water supply is still a necessity.

Also many of the hand pumps installed in the study districts are broken down thus, they are inadequate to cover 50 people (in another words 10 households). .

Table 3.3: Status of Drinking Water Coverage of Habitations as on 31/03/2012[33]

S.No	District	Total Habitations	No. of Habitations With Population Coverage > 0 and < 25%	No. of Habitations With Population Coverage >= 25 and < 50%	No. of Habitations With Population Coverage >= 50 and < 75%	No. of Habitations With Population Coverage >=75 and < 100%	Total (4+5+6+7)	No. Of Habitations with 100% Population Coverage
1	2	3	4	5	6	7	8	9
1	**DUMKA**	7384	3	0	4	6	13	7371
2	**GARHWA**	4371	0	0	5	9	14	4357
3	**KHUTI**	2995	8	20	10	6	44	2951
4	**PURBI SINGHBHUM**	6697	360	0	0	17	377	6320
5	**SAREIKELA AND KHARSAWAN**	4835	215	0	0	0	215	4620
Total		**119191**	**3232**	**46**	**201**	**654**	**4133**	**115058**

[32]Physical Progress Report, National Rural Drinking Water Programme, Jharkhand, 2012
[33]Physical Progress Report, National Rural Drinking Water Programme- Jharkhand 2012

3.3 Rural Water Supply in the Study Areas

The section below details out the qualitative and quantitative analysis carried with the help of primary data collection from 30 GPs, 60 villages and 960 households, selected from the five study districts. The results from Household questionnaires are discussed below which further help in highlighting the key issues related to water availability, its coverage, quality, treatment, etc., in the five districts proposed under the RWSSP.

3.3.1 Availability

All the five districts covered under this study reported insufficient water availability in varying degrees around the year thereby underscoring the need for a focused approach towards provisioning of water supply services in these districts.

Table 3.4: Water Supply Availability

Districts	Sufficient throughout the year %	Not Sufficient in Some Months %	Not Sufficient in Most of the Months %
Dumka	12.0	77.6	10.4
East Singbhum	42.7	50.5	6.8
Gadhwa	20.8	71.9	7.3
Khunti	26.0	59.9	14.1
Saraikela-Kharsawan	39.1	44.8	16.1
Average	28.1	60.9	10.9

***Most months mean > six months; some months mean <six months.**

The table below provides details of drinking water availability in five study districts. Water availability in summers varies in each district. East Singbhum records the highest number of respondents reporting decrease in availability of drinking water especially in handpumps, shallow wells, and open ponds indicating acute shortage of water in summer season. This is mainly because the majority of the population in the study district are dependent on ground water[34] which does not get easily replenished during summers, especially shallow aquifers, the open wells and handpump get dry.

Table 3.5. Season wise water supply availability

District	Summer	Monsoon	Winter
Dumka	13.0	96.9	97.4
East Singbhum	43.2	94.3	96.9
Gadhwa	21.4	100.0	99.0
Khunti	27.1	95.8	97.4
Saraikela-Kharsawan	37.5	95.8	96.9
Average	28.4	96.6	97.5

3.3.2 Access and Collection

Less than 15% of the respondents have reported a drinking water source within the dwelling. In East Singhbum and Saraikela around 3.6% and 4.2% respondents, respectively, fetch water from a source which is at a distance of around one kilometer from their dwelling. The table depicts that in Dumka,

[34] National Rural Drinking Water Programme

only 1.6% out of the total respondents have access to a water source within their own dwelling unit. An average of 23.8% respondent reported that they have to walk upto 500 meters to fetch water.

Table 3.6: Distance covered by people for collection of water

Districts	Within Dwelling	Outside Dwelling but within Premises	Outside Premises: less than 200 mtrs	200 to 500 mtrs	500 mtrs to 1 km	1 to 1.5 kms
Dumka	1.6 %	7.8 %	58.3 %	30.7 %	1.6 %	0.0 %
East Singbhum	8.3 %	20.3 %	43.8 %	24.0 %	3.6 %	0.0 %
Gadhwa	9.9 %	11.5 %	56.3 %	20.8 %	1.0 %	0.5 %
Khunti	9.9 %	17.2 %	51.0 %	21.4 %	0.5 %	0.0 %
Saraikela-Kharsawan	14.1%	19.3 %	39.6 %	21.9 %	4.2 %	1.0 %
Average	8.8 %	15.2 %	49.8 %	23.8 %	2.2 %	0.3 %

Although drinking water is accessible to more than 40% of the respondents in the study districts, but it is time consuming as the villagers, especially the women folk have to fetch the same from outside their house. Since people in these villages fetch water at least thrice in a day, they spend more than an hour every day for fetching water indicating loss of productive time. In Dumka around 80.7% respondents complain of spending upto one and a half hour every day in collection of drinking water. Thus, if one calculates the total time wasted in collecting water from an outside source, the net economic loss in fetching water will be substantial.

Table 3.7: Time spent on collection of water

Districts	Less than 10 Mins	10 to 20 Mins	20 to 30 Mins	30 to 45 mins	45 mins or more	No time
Dumka	5.2	45.8	34.9	4.7	0.0	9.4
East Singbhum	14.6	33.9	20.8	2.1	0.0	28.6
Gadhwa	5.7	49.0	21.4	2.6	0.0	21.4
Khunti	13.0	37.0	21.9	1.0	0.0	27.1
Saraikela-Kharsawan	7.8	36.5	17.2	4.7	0.5	33.3
Average	9.3	40.4	23.2	3.0	0.1	24.0

Further, in all the surveyed districts, the burden of fetching water is with the women. An average of 68.2% of women in the villages spent time in fetching water. In Dumka about 83.3% of women respondents confirmed that they spend a subastantial amount of time in the afternoon collecting drinkable water. In, Khunti a significant proportion of males and children also reported to be involved in collection of water..

Table 3.8: Person engaged in Collection of water

Districts	Adult Male (%)	Adult Female (%)	Children (%)	Others (%)
Dumka	7.8	83.3	2.1	0.5
East Singbhum	6.8	64.6	2.6	0.0
Gadhwa	6.8	72.4	1.6	0.0
Khunti	26.0	59.4	7.3	1.0
Saraikela-Kharsawan	3.6	61.5	12.0	2.1
Average	10.2	68.2	5.1	0.7

3.3.3 Water Quality, Treatment and Storage

An average of only 51.8% of the population rate water quality as satisfactory . Further probing revealed that the respondents' understanding of water quality was based on its physical attributes, such as, colour, odour, taste, sedimentation, etc. Very few respondents were aware of chemical contaminants as well as biological contaminants.

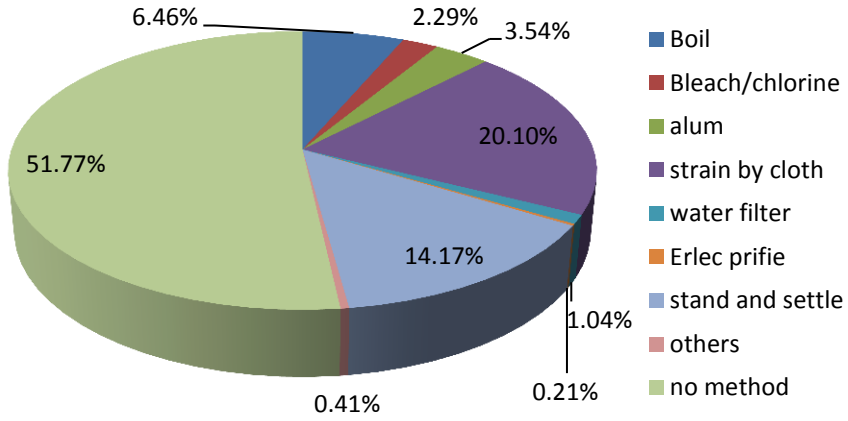
Table 3.9: Quality of Water

Districts	% of population satisfied	% of population Not Satisfied
Dumka	55.2	44.8
East Singbhum	53.6	46.4
Gadhwa	60.9	39.1
Khunti	42.2	57.8
Saraikela-Kharsawan	46.9	53.1
Average	51.8	48.2

Out of the total household surveyed around 51.8% do not use any kind of disinfecting agent for treating water for drinking. Around 20% of the respondents in the study district use cloth to filter water. Only an average of 2.3% use alum, bleaching powder and chlorine tablets as disinfectant for treating water obtained from open wells and handpumps. This reflects a lack of awareness and knowledge about the different forms of contamination of water and measures to tackle the same-a fact corroborated by the findings in the earlier table.

Table 3.10: Treatment of water – data presented in % of Population

Districts	Boil	Add Bleach/ Chlorine Tablets	Use Alum	Strain it through Cloth	Use Water Filter	Use Electronic Purifier	Stand & Settle Down	Others	Not use any method
Dumka	5.7	3.1	0.5	27.1	1.6	0.0	6.8	0.0	55.2
East Singbhum	8.3	1.0	5.7	11.5	1.6	0.0	17.7	0.5	53.6
Gadhwa	2.6	1.0	0.0	26.6	0.0	0.0	7.8	1.0	60.9
Khunti	8.3	4.7	3.1	20.3	1.0	0.0	20.3	0.0	42.2
Saraikela-Kharsawan	7.3	1.6	8.3	15.1	1.0	1.0	18.2	0.5	46.9
Average	6.5	2.3	3.5	20.1	1.0	0.2	14.2	0.4	51.8



Overall 82.9% respondents stated that they protect the drinking water by covering the vessel with the help of a lid. However, in Khunti and Saraikela 22.4% and 18.8% respondents do not use any method to cover the drinking water.

Table 3.11: Protection of Water - data presented in % of Population

Districts	Bottle with Cap	Other Protected/ Covered Items	Unprotected Storage Item
Dumka	1.6	87.5	10.9
East Singbhum	3.6	81.8	14.6
Gadhwa	1.0	93.2	5.7
Khunti	4.2	73.4	22.4
Saraikela-Kharsawan	2.6	78.6	18.8
Average	2.6	82.9	14.5

3.3.4 Preferred form of Supply and Willingness to pay

Table 3.12: Preference for Water Supply- data presented in % of Population

Districts	Exclusive Piped Connection of Treated Water within Dwelling/ Yard/ Plot (%)	Community Piped Connection of Treated Water (%)	No Response (%)
Dumka	83.3	16.1	0.5
East Singbhum	68.2	27.1	4.7
Gadhwa	96.4	3.6	0.0
Khunti	60.4	25.5	14.1
Saraikela-Kharsawan	62.5	28.1	9.4
Average	74.2	20.1	5.7

An average of 74.2% of the surveyed population has indicated preference for exclusive piped connection, having highest percentage of respondents from Garhwa Preference for community piped connection is highest in Saraikela Kharswan followed by East Singhbhum Districts.

Over all 72.7% people have indicated that they are willing to pay some amount for piped and treated water supply. Majority of then over 34.2% are willing to pay somewhere between 50-70 INR per month. The highest percentage for this range is in Garhwa at 45.3%.

Table 3.13: Willingness to pay for Piped and treated water connection

Districts	Yes: less than Rs. 20 pm	Rs. 20~50 pm	Rs. 50~70 pm-	Rs. 70~100 pm	more than Rs. 100	Not Willing	No Response
Dumka	1.0	37.5	36.5	6.3	0.5	1.6	16.7
East Singbhum	8.9	25.0	32.3	2.1	0.0	0.0	31.8
Gadhwa	0.5	43.8	45.3	4.2	0.0	2.6	3.6
Khunti	2.1	21.4	28.1	5.2	0.5	3.1	39.6
Saraikela-Kharsawan	7.8	17.2	28.6	8.9	0.0	0.0	37.5
Total	4.1	29.0	34.2	5.3	0.2	1.5	25.8

It is important to note that only 1.5% respondents stated that they are not willing to pay for the water supply services, while 39.5% are willing to pay anywhere between 50 to 100 rupees per month. A large number of people had no response as they were not sure about the scale and effectiveness of the project but at the same time indicated in qualitative survey that they would pay after being satisfied with the improved quality and quantity of water supplied to their housholds.

Table 3.14: Willingness to pay after implementation of Piped and treated water connection (in %):

Districts	less than Rs. 20 pm	Rs. 20~50 pm	Rs. 50~70 pm-	Rs. 70~100 pm	more than Rs. 100	Not Willing	No Response
Dumka	0.5	8.3	5.7	0.0	0.0	1.6	83.9
East Singbhum	4.2	14.6	8.3	0.0	0.0	0.0	72.9
Gadhwa	0.0	1.6	0.0	0.5	0.0	1.6	96.4
Khunti	1.6	10.4	5.7	1.0	0.0	6.8	74.5
Saraikela-Kharsawan	2.1	13.0	7.3	1.6	1.0	3.1	71.9
Average	1.7	9.6	5.4	0.6	0.2	2.6	79.9

The Household survey indicates that people will be expecting atleast 2-4 hours of water supply everyday. However, this only indicates that at present they are getting water for even lesser time and that a little improvement in the present status of water supply would lead to satisfaction among the population.

Table 3.15: Preference of hours of water connection

Districts	up to 2 hrs	2~4 hrs	4~12 hrs	12 hrs or more but less than 24 hrs	24 hrs	No response
Dumka	0.0	82.3	16.7	0.5	0.0	0.5
East Singbhum	4.2	52.1	37.0	2.1	0.0	4.7
Gadhwa	1.0	80.7	16.1	0.5	1.6	0.0
Khunti	0.0	60.4	22.9	1.0	1.6	14.1
Saraikela-Kharsawan	1.0	50.0	36.5	3.1	0.0	9.4
Total	1.3	65.1	25.8	1.5	0.6	5.7

Out of the total surveyed households, 48.2% respondents approach the Gram Panchayat with regard to their water supply problems and 25.8% respondents approach their friend and neighbors to seek solutions. Only 2.5% people contacts Village Water and Sanitation Committee for grievance redressal. This indicates that people do not have much faith on VWSC as well as they lack the knowledge about the functions of VWSC.

Table 3.16: Grievance Redressal- Data presented in % of population

Districts	VWSC (%)	GP (%)	Jr. Engineer (%)	Jal sahiya (%)	Friend/relative/ neighbour (%)	Mukhiya (%)	Traditional head (%)
Dumka	0.5	47.9	1.6	2.6	30.2	17.2	0.0
East Singbhum	2.1	53.1	7.3	1.6	24.5	8.9	2.6
Gadhwa	0.0	44.3	7.3	1.6	40.1	6.8	0.0
Khunti	2.6	49.0	4.7	7.3	17.2	19.3	0.0
Saraikela-Kharsawan	7.3	46.9	9.4	5.7	17.2	13.5	0.0
Average	2.5	48.2	6.0	3.8	25.8	13.1	0.5

3.3.5 Water Borne Diseases

Over all there is very low level of knowledge about water borne diseases. About 65.4% respondents did not have any knowledge about contaminated water being a cause of diseases like diarrhea, jaundice, etc.. The awareness of water borne diseases is slightly better in East Singhbhum where

around 50% respondents are reportedly aware of them. During the study many respondents did not know if their family member fell sick in the last year due to any water related issue.

Table 3.17: Aware about Water Borne diseases- Data presented in % of Population

Districts	Yes %	No %
Dumka	26.6	73.4
East Singbhum	50.0	50.0
Gadhwa	24.0	76.0
Khunti	39.6	60.4
Saraikela-Kharsawan	32.8	67.2
Total	34.6	65.4

Only 9% of the surveyed population stated that their family members fell sick of cholera. In Khunti 10.9% reported also reported cases of jaundice since they recalled some of the members in their family falling sick of the same.

Table 3.18: Percentage of Respondents falling sick due to various Water Borne Diseases

Districts	NA	DK	Cholera	Diarrhea	Diarrhoea	Dysentry	Jaundice	Maleria	nemonia	Typhoid
Dumka	0	74.0	4.2	4.2	0.0	1.6	6.3	2.6	0.0	7.3
East Singbhum	3.1	50.0	15.6	0.0	8.3	2.6	6.8	5.2	0.0	8.3
Gadhwa	0.0	76.0	7.3	3.1	0.0	0.5	7.3	0.0	0.0	5.7
Khunti	0.0	60.9	8.8	5.2	0.0	2.1	10.9	2.6	0.5	8.9
Saraikela-Kharsawan	2.6	67.2	9.6	0.0	5.7	1.6	7.3	2.1	0.0	4.2
Total	1.1	65.6	9.0	2.5	2.8	1.7	7.7	2.5	0.1	6.9

Majority of the people are not able to attribute the causes of diseases to water quality or insanitary conditions in and around their houses..

Table 3.19: Reported major water borne diseases

Districts	NA	CS	Cholera	Diarrhea	Diarrhoea	Dysentery	Haija	Jaundice	Maleria	Typhoid
Dumka	14.1	73.4	2.6	0.0	0.0	0.0	0.0	2.6	1.0	6.3
East Singbhum	20.8	50.0	3.6	0.0	0.5	2.6	0.5	12.0	1.6	8.3
Gadhwa	5.7	76.0	3.1	2.6	0.0	0.0	0.0	3.6	2.6	6.3
Khunti	21.9	60.4	0.5	0.0	0.0	0.0	0.0	4.7	2.6	9.4
Saraikela-Kharsawan	15.6	67.2	1.0	0.0	0.5	1.0	1.0	7.8	1.0	4.7
Total	15.6	65.4	2.2	0.5	0.2	0.7	0.3	6.1	1.8	7.0

Table 3.20: Sickness reported in last 6 months related to water (% of Population)

Districts	Yes	No	Not Responded
Dumka	2.1	24.5	73.4
East Singbhum	5.2	94.8	0.0
Gadhwa	1.6	22.4	76.0
Khunti	2.1	37.5	60.4
Saraikela-Kharsawan	4.2	95.8	0.0
Total	3.0	55.0	42.0

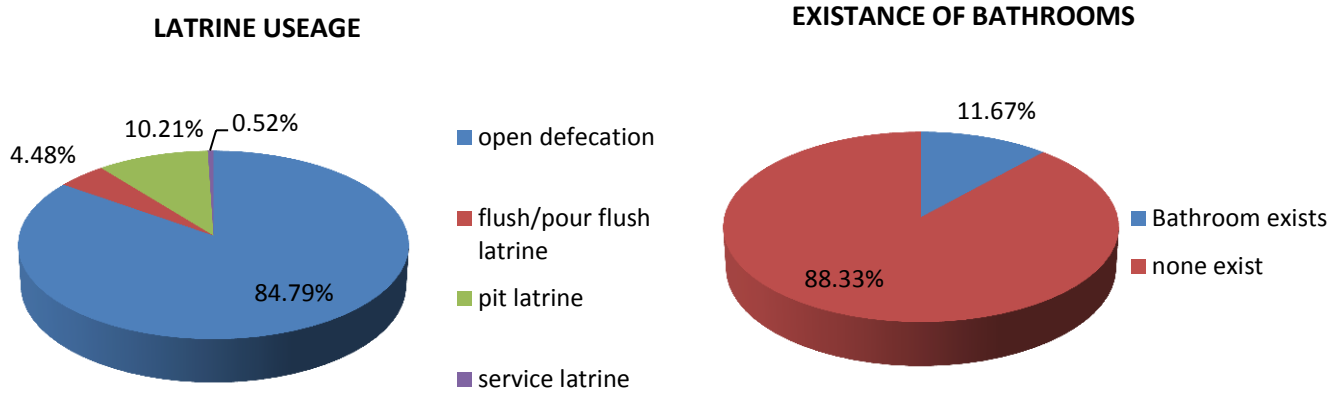
Since the level of awareness about wate borne diseases is very low 42% respondents had no response . Only 3% of total survey population thought that the sickness was related to water borne diseases.

3.4 Rural Sanitation Status

It is evident that coverage of sanitation (latrine) in the study districts is minimal. A total of 84.8% respondents are still practicing open defecation. Open defecation is highest in Dumka as 92.2% of the surveyed population is defecating in the open field. Use of pour flush latrine is around 4.5% while without pour flush is 10.2% of the surveyed population.

Table 3.21: Latrine Usage (% of Population)

Districts	Open Defecation	Flush/ Pour Flush Latrine (Connected)	Pit Latrine (without Flush/ Pour Flush)	Service Latrine
Dumka	92.2	2.1	5.7	0.0
East Singbhum	82.8	5.2	12.0	0.0
Gadhwa	90.6	2.6	5.7	1.0
Khunti	79.2	5.2	14.1	1.6
Saraikela-Kharsawan	79.2	7.3	13.5	0.0
Total	84.8	4.5	10.2	0.5



Open defecation is more of a norm than exception in the study districts, with majority of the respondents resorting to it. Further, most of the respondents reportedly trek anywhere between half a kilometer to one kilometer for open defecation.

Table 3.22: Distance travelled for Open defecation:

Districts	less than 200 mts	200-500 mts	500mts - 1000 mts	1-1.5km	1.5 km or more
Dumka	0.0	27.6	62.5	4.7	0.0
East Singbhum	0.0	25.0	25.0	19.8	13.0
Gadhwa	0.0	37.0	52.6	2.6	0.0
Khunti	0.5	26.6	43.8	14.6	0.0
Saraikela-Kharsawan	0.0	22.9	23.4	22.4	9.9
Average	0.1	27.8	41.5	12.8	4.6

3.5 The Key Issues

WATER

Coverage: Although out of the total households surveyed, around 81% of the respondents stated that they have access to water, however, only 50% perceived the water to be clean and safe. In

another words one can say the coverage of safe water is less, even though there is 95% coverage in the study districts with respect to water supply according to the NRDWP data on the state.

Key Issue: Piped water coverage is very low or non-existent . Coverage of household latrines is abysmally low.

Availability: Based on the primary assessment, only 28.1% of the population perceive that they receive sufficient water throughout the year, and the rest get less than 40 lpcd especially in summer months. Further, only 24% of the respondents have a source of drinking water within their own premises. This source may be a shallow hand pump, open well, a deep borewell, etc. In most of the study districts, a very high percentage of respondents have to commute up to 200 meters to fetch water at least twice or thrice a day and another 23.8% have to walk for 200 to 500 meters. Subsequently, in the absence of toilets within the dwelling units, most respondents reported that they have to travel more than 500 meters every day to an open field nearby. The overall coverage on latrine is very minimal with only at 14.7% people using latrine while rest practice open defecation.

Key Issue: There is not enough or adequate supply of potable water within 50 meters from the dwelling and thus people spend substantial time and energy in collecting water

Accessibility: Tribal habitations in many villages are scattered and difficult to access thereby leading to increased chances of them being excluded from development projects. The situation becomes more pronounced in the case of PTG habitations.

Key Issue: Ensuring, to the extent possible, the accrual of project benefits to the traditionally marginalized communities-more specifically, the PTGs under the project area

SANITATION

Sanitation: Out of the total respondents only 14.7% of the household are using toilets. More than 84.8% of the respondents do not have toilets in the houses and thus they resort to open defecation or using temporary or kutccha toilets outside their own premise. During the primary survey and preliminary assessment it was alarming to note that all children and adult male, defecate in the open. This is a serious health hazard and it also degrades the environment by contaminated soil, ground water and and river streams. One can attribute the presence of bacterial contamination and high instances of water borne diseases to the poor sanitary conditions in all the villages covered under the study. Thus, there is a serious concern to raise awareness levels on the importance of sanitary toilets which should be installed within the dwelling.

Community Sanitation: None of the villages surveyed had a designated land for sanitary waste disposal. It was observed, that the waste was either thrown in front of the house or on the roadside. Also, the issue of water logging near most of the hand pumps was observed during the primary survey and preliminary filed visits. In the absence of a proper drainage channel the water accumulates near the hand pump which increases the probability of the aquifer contamination. Thus, an intensive as well as a long term Information, Education and Communications campaigns for Behaviour Change should be organised through physical contacts and community monitoring.

Key Issue: There is lack of awareness on water sanitation and health relationship

Participation of women: Women are the most important stakeholders in this project, as they are the water managers in the household and are primarily responsible for its collection and storage. The qualitative survey clearly depicts that females are not the final decision makers in this sector though they carry most of the burden related to water and sanitation. Based on the primary survey in 68.2%

households, only the female folk are engaged in fetching. This is an issue as the project needs ensure that the opinion of women are incorporated in all stages of the project cycle, such as in pre-planning, planning, implementation and O&M. There full inclusion in the project will ascertain its success.

Key Issue: Women being the key stakeholder in WATSAN are at the most disadvantageous position at present since there is a lack of basic sanitation facility, drinking water and awareness related to health and hygiene.

Hygiene Behaviour: Even though, most of the households do not have toilets, their household premise was found to be very clean. Even the spaces used for bathing were clean. However, it was noted that the personal hygiene was not proper and mud or ash is used as a means to wash hands. Also, it was noted during the qualitative and quantitative primary survey, the women folk were disposing the used menstrual cloth in empty spaces far away from their own dwelling.

Grievance Redressal Mechanism: During the field assessment, it was noted that there is little or no awareness on who to approach in cases of problem with respect to water supply or sanitation. People seldom approach village water and sanitation committee, however, they approach representatives of Gram Panchayat who in turn send them to VWSC. Most people also prefer to speak to their neighbours to find basic solutions to their problems than to approach VWSC. There is no proper grievance redressal system in the villages with regard to water and sanitation issues.

Key Issue: Absence of a proper grievance redressal system.

Slip-back toilets of Jharkhand – Toilets built for BPL families around 2005-06 have disappeared in Jharkhand. There were construction issues, issues related to sanitary materials provided and O&M issues. It was also reported that since the toilets constructed were of very poor quality, the people used-up the tin sheets for roofing needs. Moreover, during, the Aila Cyclone in May 2009, a large number of toilets were blown away in East Singbhum. Overall, the toilets were not as per the satisfaction of the users and water availability was another concern for slip-back

4. INSTITUTIONAL ARRANGEMENT

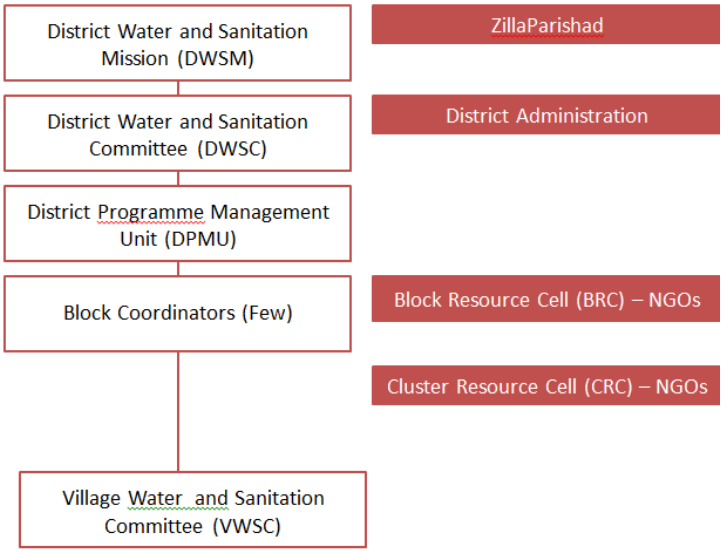
4.1 The State Level Institutions

The **State Water Sanitation Mission (SWSM)** is the state-level nodal body in Jharkhand. The Mission is managed by an Executive Body called **Programme Management Unit (PMU)**. The PMU is headed by the Chief Engineer-cum-Executive Director. Initially, there was one Director reporting to him, but now there are two Directors, out of which one of the director is a is a Consultant. There are two Deputy Directors, the first Deputy Directortakes care of Training and the Consultant's Team and the second Deputy Director looks after the NBA and Water Quality.

There are State Coordinators and Assistant State Coordinators for Sanitation Hygiene, IEC, Water Quality, Technical etc for the State Water and Sanitation Support Organization (WSSO).

State Programme Management Unit (SPMU): A State level Programme Management Unit has been constituted by GOJ for handling the RWSS project exclusively in the 5 study districts proposed under the World Bank funding.

4.2 District level -District Water and Sanitation Mission



At the District Level there is District Water and Sanitation Mission (DWSM) headed by the Chairperson Zilla Parishad. The executive body at the district is the District Water and Sanitation Committee (DWSC), headed by the District Collector. There may be two Executive Engineers depending on the divisions in the district. Both the Executive Engineers are Drawing and Disbursing Officers (DDOs). The District Programme Management Unit (DPMU) is managed by District Coordinator and Assistant District Coordinator (at some places). There is also Computer Operator at the DPMU who helps with data entry.

It is to be noted that a **District Programme Management Committee (DPMC)** has been additionally proposed for the RWSS-LIS project in Jharkhand. This team will consist of 8 specialists who will be recruited as consultants.

District Programme Management Unit (DPMU): The **DPMU** is formed at the Districts equipped with IEC, capacity building, hydrology and Monitoring and evaluation experts.

District Programme Management Centers in 6 districts exclusively for World Bank funded projects -

- Implement IEC strategies as decided by the DWSC including conducting workshops and orientations
- Capacity building of all relevant stakeholders.
- Maintain databases consisting of baseline information on sanitation aspects of the district including household latrines, school latrines and their usage.
- Prepare financial management systems and controls.
- Promote establishment of rural sanitary marts and production centers.
- Coordinate with NGOs and Support Organizations (SOs) imparting IEC activities.
- Prepare Project Implementation Plan (PIP) and assist DWSC in implementing the same.

4.3 Block Resource Centers (BRCs) at Block level

The last level of Technical Officer i.e. an Assistant Engineer/Junior Engineer is at the Block level. Some Blocks also have Block Coordinator. A **Block Resource Centre (BRC)** has been constituted. BRC will be managed by NGO partners, who will only look into issues related to Capacity Building and IEC, but not anything related to construction. 16 BRCs have been formed for 24 districts. A **Cluster Resource Centre (CRC)** for every 70,000 population (4-5 Gram Panchayats) would be also constituted to expedite the implementation of the water and sanitation schemes.

For the WB assisted districts SPMU is proposing to establish consulting agencies as **Support organizations**. Where ever NGOs are in position they are given the option of continuing with support organizations role with linkage with DPMC managed by consultants at the WB assisted districts.

4.5 Gram Panchayat Level

There is no separate institutional arrangement at the GP level.

4.6 Village level

In line with GoI guidelines, a Government Order for the formation of **Village Water and Sanitation Committee (VWSCs)** was issued on 24/08/2011[35]. VWSCs are headed by the 'Mukhia' of the GP. Each VWSC comprises a team of 9-12 members; care is taken to ensure women are duly represented on the community. The **Jalsahiya** is the woman representative in the group. She is also the treasurer

[35] GO-185/Date:24/08/2011-Memo No.4078/24/08/2011

of the committee and is envisaged to be playing a very important role. She is being trained to function as a 'Hand-pump Mechanic' for the village, which would also address her livelihood issues. She collects water samples from various water sources in the village and brings it to the Gram Panchayat office, where there is a Field Testing Kit (FTK) to check the quality of water against 6-7 parameters. The Jalsahiya is supposed to receive an incentive amount for some of her activities. She is also the one who is going to collect monthly dues related to water supply from the families. A detailed task description has been given to Jalsahiyas and the incentives against every task are enumerated.

Considering the fact that Jharkhand had its first Panchayat elections after 32 years in 2010, the state has been able to form 22453 VWSCs against 29826 revenue villages. 18,004 WSCs have been successful in opening Bank Account and nearly 110 million INR have been transferred from the state. The major tasks that the VWSC undertakes works related to hand-pumps, repairing, IHHL and IEC activities. It would also be important to analyse the role of PRIs particularly related to Schedule V areas under Panchayati (Extension to Schedule Areas), as three of the five districts are tribal dominated districts.

4.7 Key Issues - Institutional Structure and Implementation

Some of the key issues identified under the existing Institutional arrangements are as follows:

- There is a lack of leadership for water and sanitation plan at district and block level.
- Lack of Inter-department coordination.
- Village/Habitation level institutions are not adequate.
- The leadership role required for water and sanitation mission is lacking at district and block level at the DWSC.
- Zilla Parishads do not have enough knowledge and capacity to address water and sanitation issues.
- Lack of interdepartmental coordination, particularly DWSD, Health and Education as well as little or no convergence in the programmes running under the WATSAN sector in these departments.
- Local level institutions like VWSC and traditional institutions are technically as well as financially not strong enough to take up water and sanitation issues effectively.

5. STAKEHOLDER ANALYSIS

5.1 The need for Stakeholder analysis

The State's water and sanitation projects implemented under various programs since 2001 were mostly supply driven without any community participation. The water supply projects were focused on covering more and more villages, mainly through hand pumps. The efforts on sanitation were restricted only to build latrines without considering the availability of water supply in the toilets. Schools too are provided with latrines, without regular water supply provision. This supply driven approach focused more on technical outputs and achieving targets with very little attention given to its sustainability. Further, lack of maintenance of these installations results in complete discard of the systems after few years. Thus, to ensure the longevity of structures build under water and sanitation project, involvement of the stakeholders is essential at all stages of project cycle. Moreover, the ultimate focus of all these projects earlier, was to address the present issue of meeting gaps, the long term impacts were hardly accounted for. As neither the water supply created the desired impact nor the latrines as most villages have slipped back to open defecation. Though there is some evidence that many village level institutions generated their own finance to repair and maintain the hand pumps when the need became dire but almost no evidence to show that the community have the appropriate skills to manage these assets.

Keeping the previous experiences in mind, it was felt that an all-inclusive stakeholder consultation, participation and involvement in the project are an important necessity. A detailed stakeholder consultation and analysis was carried out as an important component of this Social Assessment study with the objectives to support the project in evolving an effective project implementation plan and strategy and the requirements for capacity building and developing appropriate IEC materials. These consultations were carried out with various stakeholders at Village, Block, District and State level both with government officials as well as civil society organisations. The table below lists all the stakeholders identified at different level and is presented in two categories, viz. direct beneficiaries and indirect beneficiaries.

5.2 Stakeholders at Different Levels

The project's direct and indirect stakeholders at different levels. i.e., Habitation, Gram Panchayat, District and State level are given below:

Direct Stakeholders at Different Levels

Village Level
✓ All villagers, particularlyWomen, ✓ Tribals, scheduled caste and backward groups ✓ Panchayat members ✓ Members of water & sanitation committees ✓ SHG groups, traditional village level institutes ✓ Waterman/ Operator/ Sanitation Workers ✓ Jalsahiyas
Gram Panchayat Level
✓ Current Mukhiyas and Ex- Mukhiyas ✓ Other elected PRI Members

Block Level
✓ Block Level Development Officers (BDOs) ✓ Panchayat Raj Extension Officer (PESA) ✓ RWSSD Engineers (JEs) ✓ Block Level Resource person for Water and Sanitation
District Level
✓ RWSSD - Executive ✓ Engineer, SDOs and SEs ✓ SC and ST Development Organisations ✓ ICDS Functionaries ✓ Health Department Functionaries ✓ NGOs
State Level
✓ SPMU and Water and Sanitation Related departments and Engineers ✓ Tribal Welfare Department ✓ DWSD Technical Support Agencies (from ✓ government and non-government sector) ✓ Development Support Organizations, NGOs ✓ Government of India Departments (Rural ✓ Development, Water Supply, Tribal Development, Panchayati Raj, Rural Employment

Indirect stakeholders
✓ Traders and Retailers of Sanitary Materials ✓ Village health workers ✓ NGO functionaries, ✓ Mechanics, Electricians, Mason and others in Transportation ✓ Health Department ✓ State and national level Training Institutions ✓ Women & Child Development Department ✓ Media Groups (Print & Electronic)

5.3 Beneficiaries/Stakeholders Expectations from the Project and Issues

Stakeholders	Expectations
All Users/Beneficiary	✓ Wants water for all purposes – both drinking, domestic and for cattle. ✓ Wants good quality and sufficient water at pre-informed timing on regular (daily) basis. ✓ Power (Electricity backup) with adequate water storage to tide over the scheduled and unscheduled power cuts. ✓ Prefer household connection. ✓ Community tap fine if not more than 25-30 mts away. ✓ Number of community stand posts as per the clusters of households and not by fixed numbers of HH in village. ✓ Maintenance free sanitation facilities or easy to maintain toilets with less water requirement. ✓ Identification of poorer families irrespective of social status and provision of support preferably for constructing individual latrines. ✓ Adequate and timely O&M of the water supply. ✓ For APL, subsidized individual latrines, water connections. ✓ Technical know-how, mass awareness generation on sanitation, health and gender. ✓ Mass awareness generation among all water users. ✓ Special campaign like awareness for ST and other marginalized sections and their priority inclusion in VWSC or related committees.
Scheduled Tribes	✓ Would like to be consulted through their traditional (Pradhan) institutions as well as elected PRI members in decision making, implementation and operation and maintenance. ✓ Would like to be part of Village WCSC so they have their say as well. ✓ Equitable rights or even preferred right over water while planning water supply systems. ✓ Would like to work in the projects initiated in their panchayat or village. ✓ Would like to receive training as plumbers and masons. ✓ Government should protect their interests in all aspects of Water and Sanitation as they are very poor.
Women as primary users and as a Sub-Group	✓ Better quality and quantity of water. ✓ Better capacity of tanks (OHSR). ✓ Water available at an appointed time. ✓ Preference for household connections. ✓ Timely repairs and better management of standposts/household connections. ✓ Good quality but cheap and safe sanitary facilities. ✓ Disposal of wastewater in a safe manner. ✓ Well defined government support and subsidy (period and incremental tariff).

	✓ No Open defecation. ✓ All schools with water and sanitation facilities – compulsory.
VWSC Members	✓ Regular good quality water supply and ODF village. ✓ Acceptance for equitable water supply and latrines of same quality. ✓ Training of VWCSC members and other skilled persons on operations and maintenance of all aspects of water and toilets. ✓ Preferred employment for labour to STs and villagers. ✓ Handholding for longer period of schemes in Water and sanitation. ✓ Engagement of locally built institutions for Operation and Maintenance. ✓ In-depth consultation with all groups with regard to siting of water facilities. ✓ WVSC's training and empowerment for responsibility of collecting tariff from villagers. ✓ Exposure visit to "seeing is believing" for replication.
Jalsahiyas	✓ Orientation and training on roles and responsibilities, financial management, organizing meetings, maintaining minutes register and conflict resolution. ✓ Incentives for the service.
Gram Panchayat	✓ Strong and regular capacity building of PRI members in Water and Sanitation. ✓ Adequate and timely funds. ✓ Good quality and quantity of water supply. ✓ Treatment of water for drinking purposes. ✓ VWSC to work under the direction of Gram Panchayat (PRI). ✓ Timely repair and maintenance. ✓ Regular water supply and ODF status. ✓ Regular payment of tariff to be collected by VWSC. ✓ Capacity building of Jalsahiyas and different kind of incentives for her. ✓ Strong training to both VWSC and Jalsahiyas. ✓ Mukhiya to be consulted for all work. ✓ Timely completion of work by engineers/government. ✓ Regular interaction with JE and SDO for these schemes. - ✓ Initial subsidy for all for water connection and latrines. ✓ Surplus funding for emergency work.
Block Development Level	✓ Want additional technical manpower to manage projects. ✓ Wants strong financial support from the project. ✓ Wants involvement of local political both MLA and MP. ✓ Capacity building of Elected representatives as they do not understand financial and technical implications.

	✓ Establishment of BRCs for specifically water and sanitation.
Zilla Parishad	✓ Wants only to be a facilitating agency for implementation of the program. ✓ Wants sufficient financial support from project. ✓ Wants all stakeholders including involvement of current MLAs and MPs. ✓ Wants that key decisions related to implementation are made at ZP level.
Panchayati Raj Department	✓ Strong and regular capacity building of PRI members in Water and Sanitation. ✓ Adequate and timely funds. ✓ Good quality and quantity of water supply. ✓ Treatment of water for drinking purposes. ✓ Timely repair and maintenance. ✓ Regular water supply and ODF status. ✓ Regular payment of tariff to be collected by VWSC. ✓ Greater Convergence with Drinking Water Supply & Sanitation Department, Health Department, Social Welfare Department, etc.
Social Welfare Department	✓ Equitable access over water while planning water supply and sanitation projects ✓ Ensure tribal rights are protected while designing the project ✓ Representation of tribals and other excluded sections in project related decision making ✓ Ensuring the inclusion of tribals in the project cycle ✓ The employment generated, if any, should equally benefit the tribals, PTGs and other excluded groups ✓ Greater Convergence with Drinking Water Supply & Sanitation Department, Health Department, Rural Development Department, etc.
AE/JE DWSD	✓ Want more technical man power to reach all villages. ✓ Would like facilities for quick movement to far off villages like dedicated vehicles. ✓ They should be involved only in supporting the technical aspects. ✓ Mass capacity building for all field level functionaries including DPC and Block level resource person. ✓ Long term IEC plan. ✓ Individuals/Community to take care of maintenance after providing connection-toilets. ✓ Better ground water data. ✓ Plans for systematic recharge of wells and rain water harvesting. ✓ Role clarity of Jalsahiyas.
EE/ SE, SDO	✓ Strong IEC along with capacity building particularly to PRIs and VWSC ✓ More field level technical manpower support AEs ✓ Very good quality Community Mobilizers and Community Communicators ✓ At least total cost collection of O &M

	✓ DWSD should be overall project implementation agency ✓ Should seek support of good NGOs in CDD and strengthening VWSC and Jalsahiyas role ✓ Regular consultation with professional and technical staff at DWSD ✓ Quality training in Procurement, Planning and Implementation ✓ Planning tress on augmentation of sources through ground water recharge measures ✓ Provision of adequate funds for complete augmentation or new water and sanitation systems ✓ Sufficient fund flow from government timely completion of work
DPMU/BRC	✓ Should be an experienced and capable person in Water and Sanitation ✓ Should be the link between all GPs and VWSC ✓ Should take leadership role for making ODF villages ✓ Should design locally relevant trainings to change current attitudes or practices ✓ Should take up regular IEC & capacity building to ensure that community starts owning the project
SPMU – State Water and Sanitation Mission	✓ Long term viability of the project ✓ Long term viability of O & M ✓ Strong monitoring of the project implementation ✓ Need some good models first for replication ✓ Exposure visits for GP and Village level functionaries
NGOs/INGOs	✓ Their participation and involvement in all watsan programs particularly those who are working on watsan ✓ Policies based on ground realities ✓ Issues of sanitation, health, hygiene, livelihood and nutrition need to be converged. ✓ Comprehensive training of VWSC on above ✓ Use of culturally appropriate methods of IEC ✓ Create demonstration villages for quicker and wider replication

5.4 Key Issues - Stakeholder Analysis

- PRI and other Local capacity are weak and inexperienced to manage water and sanitation services in CDD approach.
- Jalsahiya's capacity presently is not adequate, and thus the role envisaged for her under the project may not be adequately managed by her.
- Women are excluded from any decision making on water and sanitation services.
- There is no leadership for taking water and sanitation issue at priority.
- Cost recovery is an issue in areas with poor population.
- Some groups (PTGs, SCs, etc.) may be excluded from the water and sanitation services.
- Disposal of waste and waste water.
- Timely transfer of funds to VWSC.
- Traditional institutions of governance may be ignored. They want to be an essential part of design and implementation.
- Tribal rights may be ignored while designing the project
- Exclusion of tribals, PTGs, SCs and other marginalized sections in project related decision making

6. IMPACT ASSESSMENT

6.1 Gender specific findings on water supply and sanitation

Water Supply

Rural women in all five districts of Jharkhand, carry the burden of overall management of water both for domestic and drinking purpose at the household level. Adolescent girls help their mother in fetching water from hand pump\wells and assist in household chores when they are away for work in the field. In sharing water from common hand pumps, women and girls face problems due to long queue and disputes and tensions between communities. Women felt that collection of water from far off places is time consuming, thus they are not able to spend time with their children. Many of them shared that in the absence of nearest water source, they collect less amount of water. As a result, they are not able to maintain cleanliness. During discussions, group of women from Bhilaipahari village, Deoghar GP in East Singhbhum district shared that they are not satisfied with the water and sanitation in the village and generally face water shortage in summer season. Women from Nawagram village, GP Paura, district East Singhbhum shared that few households have access to piped water connection; however, most of them are not satisfied with the quality of water supply. Focus group discussions with women groups from Chhata village in Bichna GP of Khunti district revealed that there is strong voice against poor operation and maintenance of the system. They said that in their locality, several hand pumps are defunct and there is no timely maintenance of the hand pump. Discussion with women inhabitants from Patamda GP in East Singhbhum district revealed that they were not aware of the role of Jal Sahiya and Village water and sanitation Committee (VWSC) in their village.

Sanitation

In all the five districts, open defecation among women and girls is prevalent. Open defecation sites around the village have been designated for women and girls. They wake up early in the morning and go to the open defecation sites in groups. They shared the thought that women and girls defecating in open is a matter of shame but they do not have any option. In addition, they cannot go and defecate during the day. As they have to go to the outskirts of the village, women and especially adolescent girls do not feel safe going alone. They are scared of incidences like eve teasing, sexual assault by anti-social elements. Further, women and girls are scared of snake bites or other poisonous insects while defecating in open. They are not concerned of hygiene related practices but generally, hand washing with soap after defecation is practiced to some extent. They are not aware of the adverse health impacts of open defecation. Women shared that the toilets that were constructed have not been used and has been converted into a store room. Key reasons for not using the toilets include their age old habit of defecating in open, non availability of water, lack of money, for the shed and flooring of the toilet area, and lack of maintenance. It has been observed that the demand for the toilet from women members in villages of Jharkhand is still lacking. In some of tribal dominated villages due to the prevalent culture, women members do not feel unsafe in going out for open defecation.

It has been asserted from the women groups of all five districts that there is no proper drainage system for waste water disposal in the villages and thus during rainy season, there is a water logging in low lying areas. Proper garbage disposal system is a distant dream. Majority of the women

asserted that the implementation of the sanitation project would lead to toilet facility in every household.

6.2 Other Sanitation issues

- **School Sanitation**

  It was observed that in most of the cases toilets were not constructed in government aided schools . Wherever toilet exists, it is in a pathetic condition due to non-availability of water and lack of maintenance. In some of the locations mainly in Khunti districts, separate toilets exists for girls and boys in co-education schools but it was kept locked by the teachers and children are prohibited to use the toilets. It was argued that it is difficult to monitor that the school children are using toilets appropriately and maintaining and therefore teachers use to lock it. In these circumstances, young and adolescent girls usually go behind the schools around the bushes to answer the nature's call.

- **Menstrual Hygiene Management**

  In rural areas of Jharkhand, there are very few women who practice hygienic behavior during menstruation. In the absence of toilets and safe corner, they find it extremely difficult to change the cloth pads. Pads which are discarded are not disposed safely but thrown along with other household waste or in some empty corner. Among many communities, menstruation is a secret affair and need not to be talked about publically. In rural areas of Jharkhand, due to lack of proper sanitation in school, girls do not go to schools during these days. They generally feel ashamed of talking about this.

- **The Perceived Roles and Responsibilities of a *Jalsahiya***

  The analysis and findings from qualitative and quantitative survey clearly reveals that community in general and women in particular are not aware of the roles of the Jalsahiya. it is a matter of concern that Jalsahiya too is not aware of her roles and responsibilities. In many cases they are not confident and thus not able to exercise their rights. In this context, there is a need to create awareness among the community members about the roles and responsibilities of Jalsahiya's and how to cooperate them in performing their roles effectively and efficiently. Capacity of Jalsahiya's needs to be developed in the areas of intellectual capacity, institutional capacity and attitudinal capacity as mentioned in the previous section under gender specific capacity building strategy.

- **Proposed approach for gender mainstreaming in RWSS**

  In water and sanitation project, gender mainstreaming can be done through two ways – [1] by understanding the differences in needs and priorities of women, men, girls and boys that arise from their different activities and responsibilities; and [2] analysing the inequalities in access to and control over water resources and access to sanitation services[36]'. It has been argued that gender mainstreaming in the sector has largely about women making projects work, rather than projects working to reduce gender inequities[37]. In this context, there is a need to move beyond involving women merely as *Jalsahiya* and as VWSC members, build their capacities as important beneficiaries and stakeholders. In their role of stakeholders there is a need to find out their priorities and needs in

[36] UNICEF. 2003. 'Gender Mainstreaming in Water and Sanitation'. Available at http://www.unicef.org/wash/index_main_streamiang.html last accessed on March 7, 2013

[37] Joshi, D. and M. Zwarteveen, 2012. 'Gender in Drinking Water and Sanitation: An Introduction', in M. Zwarteveen, S.Ahmed and S. Rimal Gautam (eds), *Diverting the flow: Gender equity and water in south Asia*. New Delhi: ZUBAAN, 2012

relation to water and sanitation. Examining following components for gender mainstreaming in rural water supply and sanitation project in Jharkhand would be a step forward towards gender inclusive project:-

- ✓ Assessment of the needs and priorities of women in context of water supply and sanitation project cycle.
- ✓ Incorporating gender sensitive indicators and gender tools during the project cycle. That is to incorporate these from planning to implementation to monitoring and evaluation phase. In this way women can be also be involved as decision makers.
- ✓ Ensure the participation of women in institutions at every level – VWSC and PRI are village level institutions and mandatory participation of women in these institutions as per the guidelines. However to ensure their participation, there is a need to generate awareness and build capacities of both women and men. There is a need to ensure the participation of women at block, district, and state level which is missing particularly in context of government institutions.
- ✓ For gender mainstreaming in monitoring and evaluation, and to see the positive and negative impact of the programme on women it is important to develop indicators and data disaggregated by sex.
- ✓ Incorporating gender agenda in accountability tools like citizen report card, or performance monitoring would be useful to strengthen women's voice to be heard. Here in the context of the project women collectives could be involved in conducting participatory monitoring of water and sanitation services.
- ✓ In order to give greater emphasis to women's hygiene issue particularly, Menstrual Hygiene Management it is important to follow the recommendations of the policy documents in letter and spirit. For instance, Twelfth Five Year Plan – 2012 – 2017; Report of the Working Group on Rural Domestic Water and Sanitation[38] uses the term 'gender', 'gender equality' and 'gender issues' on several occasion and highlights the need to incorporate gender issues in water and sanitation project. It has elaborately mentioned the role of civil society in addressing the issues related to Menstrual Hygiene Management[39]. Provision of girl friendly toilets with suitable water facilities and for safe menstrual hygiene management in all schools and to make sanitary napkins available to them in rural schools either free of cost or at affordable prices have also been recommended by the working group[40]. Menstrual Hygiene Management is an important part of WASH and comes as one of the major components of sanitation. Preliminary field visits to rural areas and interaction with the women members shows that this has not been prioritized in school sanitation.

- **Scope of participation of women at various levels**
  - ➢ **Participation at Community level**

    At the community level, women can participate as a one of the important stakeholders and beneficiaries. They can actively participate in community monitoring of water and sanitation services. In their role of a consumer, they should be encouraged to participate in overall water and management by using practices related to save water and adequate water use and by paying monthly water bill. Women groups asserted that traditionally they are responsible for managing water and that they understand the importance of water. They explained that active participation of men and women would result in quality access to

[38] Planning Commission. 2011. 'Twelfth Five Year Plan – 2012 -2017; Report of the Working Group on Rural Domestic Water and Sanitation', GOI. Available at http://planningcommission.nic.in/aboutus/committee/wrkgrp12/wr/wg_indus_rural.pdf (accessed 11 March 2013)

[39] Ibid p.118

[40] Ibid p. 208

water and sanitation service. As a member of community, women can maintain the drinking water structure at the village level. In sanitation sector, they could play the role of a watch dog and encourage other community members to use toilets instead of defecating in open. The service provision would benefit them most and thus they should play an active role in the management of services.

- **Participation at Institutional level**

  It has been observed that women's participation at village level institutions are still an area which needs focus. This issue is directly related with the gender concerns of seeing women in public places and sharing them with their men counterparts. The tribal dominated society of Jharkhand that has a culture of placing women equal in the society could be a boost for promoting greater gender participation at the institutional level. Jal sahiya from VWSC thus, need to play the role of a facilitator and provide support for greater participation of women at the institutional level.

Key areas of Capacity building

Capacity development of women, one of the key stakeholders for rural water supply and sanitation project mainly targets capacity enhancement of women in VWSCs, women panchayat leaders, women collectives and women community members.

Key Issues

- Safety issues in open defecation
- Inconveniences in attending to nature's call during day time
- Less attendance of adolescent girl child in school due to non-availability or locked toilets
- Drudgery of women in fetching water
- Women neglected in water and sanitation planning issues

7. IMPACT ASSESSMENT

7.1 The positive and negative impacts

Impact Assessments was carried out through identification of positive and negative social impacts that are anticipated to occur for different sub-groups or beneficiaries as a result of project interventions and subsequently the section suggests its mitigation measures. The anticipated **positive impacts of the JRWSSP** are

1. **Easy access to safe drinking water**

Easy access to safe drinking water will be ensured with the availability of treated water through piped-water supply which will be provided to each household covered under the project. This will contribute significantly to leaser incidences of water-borne diseases. Furthermore, this will also save time as well as drudgery of collecting water regularly from a distance.

2. **The involvement of the Panchayati Raj Institutions**

The project envisages placing the GPs and communities in the central role for facilitating, planning, implementing, monitoring and providing a range of O&M back-up services related to water and sanitation. The project would focus on building the capacities of the PRIs to undertake these new responsibilities. Hence the project would significantly contribute in ensuring the democratization of the decentralized system of governance.

3. **New Skills and Training for Livelihood:**

It is anticipated that the project will be able to train local people in masonry work, plumbers and repair and maintenance of water assets, which will create local jobs and enhance income of these people.

7.2 The Impact Assessment Matrix

The perceived positive and negative impacts of the project by the stakeholder groups are presented below:

Stakeholder Groups	Perceived Positive Impacts	Perceived Negative Impacts
All Users	Sufficient availability of quality water. Improvements in quality of life and human dignity. Reduced nuisance of open defecation due to increased coverage of individual sanitary toilets. Improved health. Less suffering during summers. Improved community participation and sense of ownership. Improved Capacity of beneficiaries to handle own assets. Creation of new jobs for locals.	Partisan in User Committee – domination of the powerful in making decisions. Conflict among Tribal and Non tribal or among BPL card and non card holders in payment of user charges. Water stagnation/water logging in some areas.
Women as Sub-group	Availability of quality water at less time and energy spent.	Domination of male members in User Committees may lead to

Stakeholder Groups	Perceived Positive Impacts	Perceived Negative Impacts
	Reduced drudgery of carrying water from long distances particularly in summers and rainy season. Reduced disease burden due to reduction in water borne diseases. Reduced health expenses. Improvements in quality of life and dignity. More chances for girl child to attend schools.	insensitive decisions.
Scheduled Tribes (ST)	Availability of quality water in sufficient quantity. More productive use of time. Scope for having water points near their houses. Reduced drudgery of carrying water from long distances. Reduced disease burden due to reduction in water borne and water related diseases. Reduced health expenses. Chances of having more school attendance among tribal girl child. Overall Improvement in life and health.	Chances of VWSC overruling the villagers needs and Scheduled Tribes. Health Hazards, due to stagnation of water. Higher Tariffs. Exclusion of tribals in non-tribal areas.
Scheduled Caste (SC)	Availability of quality water in sufficient quantity. More productive use of time. Scope for having water points near their houses. Reduced drudgery of carrying water from long distances. Reduced disease burden due to reduction in water borne and water related diseases. Reduced health expenses.	VWSC may be controlled by few powerful individuals.
VWSC	A forum for beneficiary cohesion in making decisions. Empowerment of community members Capacity building of VWSCs. VWSC members enhanced participation in PRI activities.	VWSC may be controlled by few powerful individuals. Off shouldering of responsibility of the beneficiaries on the Jalsahiyas. Chances of incidence of conflicts over the distribution and use of water.
Gram Panchayat	Opportunity for provision of reliable water and sanitation services. Opportunity for propagating community owned decentralized waste supply systems. Building the capacity of VWSCs to handle water and sanitation at the village level.	Threat of conflict between roles related to regular developmental agenda and that of VWSC Whims and fancies (nepotism) in appointment of Jalsahiya.
DWSD	Opportunity to provide water and sanitation services to rural areas with community ownership. Opportunities for skill development and	Lack of interest beyond providing technical capacities.

Stakeholder Groups	Perceived Positive Impacts	Perceived Negative Impacts
	capacity improvement at local level, off burdening some of their work. Capacity Building opportunities in social engineering.	
Daily Wage Earners	Employment Opportunities during implementation and sometimes during maintenance. Likely Increased wages. Opportunities for working with skilled persons and learning new skills.	(None envisaged)

8. SAFEGUARDS

The section below provides a brief write up on the two operation policies, 4.10 and 4.12 under the safeguards with respect to the RWSS project funded by world Bank.

Indigenous People (OP 4.10)

The present study confirms that there are around 15% to 73% Scheduled Tribes in the six project districts. They belong to various tribal groups with unique identity, diverse religious and cultural practices, different languages and festivals which are distinctly different from the other locals in the state. The tribals are related to the habitations since generations. After having a baseline study and a beneficiary assessment, the present study has concluded that a separate Tribal Development Plan (TDP) for Jharkhand needs to be prepared to address the needs of the tribals and to ensure their discriminatory targeting. The same has accordingly been prepared and is presented as a separatereport.

Lands (OP 4.12)

Land requirement arises for four purposes: FOR (i) water source; (ii) water treatment plants (WTP); (iii) construction of ground level or overhead tanks (G/OHT) or cisterns; and (iv) Water transmission and distribution pipelines as well as sullage/ storm water drains. Water sources could be either ground water or based on surface sources, chiefly, rivers and canals. The ground water sources require 'land' and so is the case with WTPs and tanks. Transmission and distribution lines are laid mostly in public land or along public streets and no land needs to be secured. In a few cases, pipelines may have to pass through private agriculture fields. Since the pipeline are laid at least 90 cms below ground level, no land acquisition is needed, but permission from the land owner is taken. If such permission is not forthcoming, then alternative pipe routing is used, even if it is more expensive to do so. This means, lands are required for Sl No (i), (ii) and (iii).

When plots of lands are to be acquired for project installations, their ownership could be either public or private. While it is easier to access public land, arrangements will have to be made for securing privately owned land. The prevailing normal practice in the state is obtaining such land plots either through voluntary donation or by outright purchase. The discussions with the communities and experts as well as the past experiences reveal that most villages do have sufficient public/Panchayat lands; and (ii) in case, it becomes inevitable, the local community will secure lands either through voluntary donations or outright purchase.

Based on records of previous years in Jharkhand, there has been no incidence of acquiring private lands on involuntary basis for similar projects. The current study also shows that there is no need to acquire private land involuntarily. However, if at all needed, voluntary donation of land will be taken up.

Rules of taking possession of land

- All donations and purchases will be voluntary. Mechanisms will be developed not only to ensure the voluntariness but also that it will not involve any significant adverse impact upon incomes or physical displacement.

- All voluntary land transactions will meet the following criteria: (i) the land in question will be free of squatters, encroachers or other claims of encumbrances; (ii) land will be chosen by the community after ensuring that water will be available in that particular piece of land; (iii) verification of the voluntary nature of land donations in each case; (iii) due transparent measures will be in place; (iv) land transfers will be complete, land title will be vested in the community/ GP through a registered sale deed or MOU; and (v) provision will be made for redressal of grievances (ROG) if any.
- All voluntary transactions will be documented and signed by both the parties. Agreements on above will be reached during appraisal and legal documents will include the necessary clauses.
- DPMU will arrange for an examination of all land purchases by an independent agency before according the approval. Further, lands will not be accepted from such land owners whose holding will be less than the minimum economical viable stipulated size (2.5 acres).

9. MAJOR RISKS AND ASSUMPTIONS

This Social Assessment confirms the issues relating to - Participation, Inclusion and Equity. While Participation cuts across population sub-groups, the other two are essentially grass root based. To be precise, it relates to differential access to project benefits; and the need to address the requirements of poor as well as socially disadvantaged vulnerable groups (STs, PTGs, SCs, and Women). This effort may be supplemented with the following:

- Stakeholder access to project information; partnership with NGOs to enhance transparency and accountability.
- Flexible operational structure to engage stakeholders at all levels and clear delineation of roles and responsibilities at each level of operational structure.
- Conducting continuously state and district level stakeholder consultation workshops to discuss the problems and priorities of people and take feedback from stakeholders.
- Partnering with NGO/SOs to achieve participatory planning and implementation particularly in areas such as awareness creation, social mobilization and group formation as well as community training in various aspects of watershed, livelihood, etc.
- Post-project handing over of assets to community level institutions for operation and maintenance.
- Shall facilitate convergence with other development programs.
- Establishment of an MEL (Monitoring, Evaluation & Learning) system that provides timely and necessary information for achieving transparency and accountability.
- The MEL system will serve as a tool for better management and decision-support, learning and accountability throughout the project period.

Gender issues

- Representation for women in VWSC and other community level institutions.
- Representation for women in training and other capacity-building initiatives.
- Support or partner agencies to be appointed will deploy at least one-third women staff.

Convergence across departments

- Convergence and integration should be attempted during the project design.
- Integrating or converging rural water and sanitation work particularly with MNREG work particularly for farm ponds and rain water harvesting.
- The DWSD should periodically review progress of planning, training and extension, and program convergence along with implementation of the schemes at the District level.

9.1 Issues and Recommendations

The earlier sections conducted an in depth social assessment and brought out various issues. However a collation of inferences and findings led to the identification of some key issues which have been enlisted below along with its recommendations for creating an enabling environment for project implementation and sustainability.

Issues	Recommendations
• The beneficiaries are willing to accept the proposed piped water schemes and are ready to pay for improved service • They seem to be less aware of the scheme details including site of the project and other details. • Beneficiaries apprehensive regarding the reach of piped water to the farthest point.	• Since the beneficiary preparedness exists, the commissioning of the schemes should be done as early as possible in ensuring water security addressing the issues of quantity quality and regularity. • Project details to be displayed (proactive disclosure) in a permanent board to ensure awareness of the scheme among all

Issues	Recommendations
• Some apprehension is also there about payment of tariff and connection fees among potential users. They are unsure about the total amount to be paid • Community's experience related to government-aided toilets is very poor among stakeholders. Ownership of such assets is also low	stakeholders. • Contour of the land to be considered prior to laying of pipe line. • Detailed discussions with project participants at the community level needs to be done. Doubts related to quantity and regularity of water flow and payment schedule needs to be clarified. • Construction of toilets should be taken-up only after the family / habitation is prepared to accept it and ready to use it.
Stakeholder preparedness	
• State level SPMU is in place but at the sub optimal functional level. • District level DPMUs proposed and establishment in progress • VWSC at the GP level looks after works related to hand-pumps, repairing, IHHL and IEC activities. Since overall O&M of Water Supply and Sanitation are to be handed over to them, they are yet not prepared mentally and technically to takeover multi-village schemes. • AT the GP level there is no separate institutional arrangement in managing Rural Water & Sanitation. The new project under RWSS will be handed over to the PRI, stakeholders and committee stakeholders, who thus will be needed to be capacitated for effective management of such schemes. • Jalsahiyas are functional in most of the cases, but they work under the direct supervision and guidance of VWSC, who at present are incapable of technical monitoring of the existing schemes such as water quality checks, leakages in the system, maintenance of infrastructure, etc. • VWSCs are generally handled by few members and headed by the GP Mukhiya. The other PRI members are not involved in the management. All members need orientation, motivation trainings and also capacity building on management issues including financial management • Jalsahiyas do not have adequate capacity in community mobilization, information dissemination, monitoring and book keeping. • There is a dominance of influential groups in VWSC. • ST members may be left-out from the VWSC	• Strengthening of SPMU with engagement of staff and definition of work roles. • DPMU to be made functional at the earliest through engagement of specialists. The existing staff in the DWSD (Who are also a part of SPMU) needs to be geared towards the World Bank Project provisions. • GP level committees dealing with water and sanitation including VWSC should be oriented and trained to be able to handle multi-village schemes with larger coverage. Adequate staff with technical capabilities has to be mobilized. • Capacitating the VWSC members on information dissemination seems to be required. Local NGOs and a local resource person can work towards capacity building of VWSCs who would in turn carry out the functions in their catchment areas. Activation of the Block Resource Centers are a must in this context. • Capacity building of Jalsahiyas on community mobilization, information dissemination, monitoring and book keeping. • As per the Jharkhand Panchayati Raj Act, there is a provision for more than one Gram Sabha in a scheduled area village. If required, provisions can be made to form another VWSC with ST

Issues	Recommendations
• Convergence of programmes and schemes are not yet streamlined for which program benefits are either duplicated or resources not optimally utilized.	population • Convergence issues need to be dealt in an integrated way at every level through coordination meetings were strategic plans under each programme could be shared for identifying areas of convergence.
• Community is more or less geared up to pay for water but there are some instances where they stopped paying if water is not available or grievances are not addressed. • Subsidy in sanitation sector has a negative impact and community is not maintaining the sanitation system as it comes in a subsidized rate .	• Water security and sustainability issues should be taken care of through appropriate GPWSC and VWSC strengthening. There should be a streamlined system of Grievance Redress at the VWSC levels. • Water supply connection should not be given at free of cost as there is already a habit of paying for getting water and the present Act also has such provision. • If any subsidized rate to be thought for inclusion of poor and marginalized section such as; PTGs, this should be handled by GPWSCs. • Issue of subsidy in sanitation needs to be revisited.
• Community not particularly sensitive to women issues in the context of water and sanitation. Women's role conceived as passive in water management.	• Gender sensitization to be done through appropriate IEC mechanisms. • The mandatory provision of women participation in VWSC Executive Committee to be increased from 30% to 50% or more. At least one position among the President, Secretary and Treasurer should be help by women. (All women member VWSC could also be tried out as an innovative model). • The petty contracts arising out of the sub-project should considered entrusting to the existing women groups on community contract basis in the context of operation and maintenance.
• Some beneficiaries living in elevated or far off habitations may be neglected. • Also, since tribal population is scattered they are likely to get excluded from the proposed schemes under Water and Sanitation.	• Tribal Development Plan, ensuring their inclusion in the best possible way. • Ensuring, to the extent possible, the accrual of project benefits to the traditionally marginalized communities-more specifically, the PTGs under the project area

Risks and Mitigations Measures

Jharkhand is a vulnerable area in terms of ethnic insurgency which can pose a serious threat on the project implementation. Loss of man days due to strikes should be considered in the project planning. On the other hand, Jharkhand holds the 6th rank in terms of Scheduled Tribe (ST)[41]

[41] The Article 366 (25) of Constitution of India defines scheduled tribes as "such tribes or tribal communities or parts of or groups within such tribes or tribal communities as are deemed under Article 342 to be Scheduled Tribes for the purposes of this constitution".

population. It has around thirty two Tribal Groups, major among them being Santhal, Munda, Oraon and Ho. Eight out of the thirty-two tribes of Jharkhand fall under Primitive Tribal Group (PTG). Further, Tribal habitations in many villages are scattered and difficult to access thereby leading to increased chances of them being excluded from development projects. The situation becomes more pronounced in the case of PTG habitations.

Beyond these, assessments of risks and assumptions have been done in the course of beneficiary assessment which has been indicated below:

S.No	Risks	Mitigation Measure
1	Lack of ownership of the constructed schemes by Gram Panchayats (GPs)	• PRI members engaged in implementation phase 'as and when' required basis, this has to be streamlined and a detailed planning to be done staring from planning to handing over of the scheme involving PRI stakeholders. • Handing over process needs to be streamlined and capacitating all the PRI stakeholders concerned needs to be done • The committees constituted for looking after the issues needs to be strengthened with designated power and execution of the power
2	District and Block Level staff may not be comfortable with the new project as it entrusts greater responsibility on PRI	• There has to be a detailed orientation on the roles and responsibilities of the different government and PRI functionaries indicating the advantages of such involvement. • Exposure visit and success story sharing could be a viable method.
3	Additional responsibility on DWSD Engineers at State and District may lead to over burdening on staff capacities	• The SPMU and DPMU needs to be strengthened with adequate staff. • There should be a provision for dedicated technical expert especially in social, environment and procurement sectors, at DPMU level.
4	Women as a stakeholder may remain excluded	• The women participation has to be ensured through appropriate orientation and sensitization. • Women organization and community level stakeholders i.e. women SHGs, ASHA activists, AWWs do not seem to be very active in all the study districts, they needs to be engaged for various grassroots community interactions and advocacy related to WATSAN.
5	Lack of accountability	• Re-defining the functional at all level of stakeholders. • Re-articulating their respective roles and responsibilities in the context of the WB supported project.
6	Slip back of commissioned schemes	• Creating demand for improved piped water supply services. • Subsidy to be minimized in water supply with provision of community system for poor and needy and that has to be the responsibility of respective VWSCs preferably not to be decided at the Apex level. However, in case of tribal population covered under the project, Social welfare department in mutual agreement with the VWSC (having tribal representatives as members) can decide on the respective subsidies, under the project.

S.No	Risks	Mitigation Measure
7	There could be procedural conflicts in integrating water with sanitation under the same committee.	• Orientation of members at all levels. • Procedural streamlining for integration.
8	Lack of convergence may lead to duplication of work and resource use	• Coordination meetings to be organized on a regular basis for sharing of projects proposals • Judicious allocation of funds for the purpose through strategic planning.
9	Left Wing Extremism is a challenge in most of the project areas and may lead to delays in implementation.	• Generating grass roots demand for services and mobilizing community influencers to elicit the community's support in the project areas may reduce such risks.
10	Exclusion of marginalized, particularly the Tribals, SCs, OBCs	• Inclusion of all targeted habitations without any discrimination arising out of cost or technology.
11	Conflict may arise if petty works are not given to local contractor	• Preference to be given to local contractors and laborers.
12	Conflict may arise in VWSC if it is not represented by all sections of the village	• Democratic process to be ensured in the formation of VWSC.

To sum up, the best possible way of mitigating the anticipated risks is to build community capacity is managing the water supply and sanitation schemes and also to bring about an appropriate behavior change in them through a focused IEC/BCC Strategy.

10. CAPACITY BUILDING STRATEGY

10.1 The Jharkhand RWSS Program and Need for Capacity Building

The Rural Water Supply (RWS) sector in the country has now entered the fourth phase with major emphasis on ensuring sustainability of water availability in terms of potability, adequacy, convenience, affordability and equity while also adopting decentralized approach involving PRIs and community organizations. Adequate flexibility is afforded to the States/UTs to incorporate the principles of decentralized, demand driven, area specific strategy taking into account all aspects of the sustainability of the source, system, finance and management of the drinking water supply infrastructure. Adoption of appropriate technology, revival of traditional systems, conjunctive use of surface and ground water, conservation, rain water harvesting and recharging of drinking water sources have been emphasised in the new approach[42]. All this requires a systematic capacity building plan for different stake-holders and carrying out a proper training need assessment keeping the objectives of the program in focus.

10.2 Assessment of current capacity with regard to RWSS in Jharkhand

The study made an assessment of the current capacity using qualitative interactions, focus group discussions and case studies at Engineers, programme staff, PRI, VWSC and Village communities. Following are the key findings:

10.2.1 Engineering staff:

Engineering staff are quite strong with the technical knowledge. Additional inputs are required in the Jharkhand state specific technologies such as Rain Water Harvesting, futuristic planning, water conservation.

The role shift of the implementing agencies from supplier to facilitator and engineer to team leader is very critical at the district and block level.

10.2.2 Programme staff:

Line staff at all level (SPMU/PMU/DPMU/BRC team members) need an in depth understanding of the paradigm shift and focus more on demand generation, community participatory planning, social mobilisation, and facilitating meetings including with the PRI, VWSC and Village communities.

10.2.3 PRI, VWSC and Village communities:

PRI, VWSC and Village communities play a very critical role in the RWSS programme. The field level observations indicate GoJ need to wait and implement the schemes only after carrying out well designed social mobilisation campaigns. “When the community members were asked about the role of existing Village Water and Sanitation Committee and the role of Jal Sahiya, they clearly pointed that the village water sanitation committee as it is not functioning actively in village. They also pointed that they are unaware about the Jal sahiya”.

10.3 Methodology adopted for TNA and Capacity Building

The methodology was open ended questionnaires administered to Key Officials at all levela both Primary and Secondary, and Group discussions with the primary stakeholder to get information on the capacity building requirements of all the stakeholders – namely the Government, Non

[42] *Ms. RAJWANT SANDHU, Ministry of Rural Development, Department of Drinking Water Supply, (Source: Rajiv Gandhi National Drinking Water Mission-National Rural Drinking Water Programme, GoI- April 23, 2010)*

Government Organisations, PRI, Village Water and Sanitation Committees, Traditional Village Institutions, village communities, jalsahiya, local youth in repair and maintenance etc.

10.4 Community participation and RWSS component

The major feature that makes this initiative a unique one is the conditionality of the RWSS Program given to people's participation. This puts the element of community participation as the only way by which programmes sustainability can be achieved. Within the project design, mechanisms of participation are built into all three PRI, Zilla Parshad, Gram panchayat and Gram Sabha.

The Main Objectives of this Capacity Building Component for the communities is:

- Guide the process of Community Awareness, Gender Mainstreaming, Construction facilitation and Pubic Participation components in districts under World Bank bringing about their integration with the state and national programs in water supply and sanitation;
- Strengthen the stakeholders to facilitate the process of Water supply and Sanitation improvement with aim to " Do Good" to any one impacted by the project;
- Ensure the awareness and participatory needs of the communities; and
- Establish a framework for involving all stakeholders in order to achieve an efficient and smooth implementation of the program.

Through the capacity building programmes the RWSS schemes ensures:

1. Community participation
2. Community inclusiveness
3. Community satisfaction
4. Community awareness
5. Community ownership & management

This depends on the pro active role the executing agencies play in involving the communities from the planning stage to the handing over stage constantly focusing on the shift in the mind set from dependency to independently managing the water as an entrepreneur manages his business. All along the project period the DSWD team has to closely facilitate the shift of the communities' behavior elevating the current Knowledge, Attitude and Practice level to an appropriate level expected by the project.

10.5 Key Issues in Capacity building In Jharkhand

- Local Level capacity is not adequate for water and sanitation implementation
- Jalsahiya not capacitated for the current envisaged role
- Some District level engineers not interested in social engineering and in taking leadership for water and sanitation in a mission mode
- Lack of technical personnel at local level for repair and maintenance
- Existing institutional capacity with DWSD is very limited particularly in terms of social engineering and leadership by the district level functionaries.
- Past trainings have been adhoc and not systematic. Even the existing use of human resources have not been properly utilised and trained. Also there is lack of training modules that can be rolled out quickly.
- Confidence building among the Mukhiyas and other PRI members

- Knowledge Attitude and Practice shift
- Integration and capacity building of Tradtional village level institutions
- Self actualisation to community leaders and in general
- Jalsahiya –their current capacity and assigned role mis-match
- A very high percentage of beneficiaries are tribal population and has high level of dependency on government officials. This dependency needs to be reduced through local level capacity building on a sustained basis.

10.5.1 Capacity Building Mission

Capacity Building aims to empower the people and organizations representing communities by enabling them to better manage their current standards of water and sanitation services and hence their health and lives. Capacity building mission has the following dimensions:

- To take measures to empower the community to handle the services of water, sanitation and health issues themselves
- To put pressure on the service providers to demand and access services through a Community Driven Development approach
- To empower the PRI and Village communities to better understand their roles, and participate in local governance with a definite clarity on the water, sanitation and related health issues
- To institutionalize the participation of the Communities and the Civil Society Organizations (CSOs) in the interventions related to water and sanitation issues, and support the community structures to access the development avenues

In practice, Capacity building is viewed as much more than training, to include supplementation of inputs, provision of technical assistance, provision of backward and forward linkages etc, so that individuals and institutions not only are equipped to deal with the components of the current programme but rather to optimize their outputs in all their activities. Capacity building if rightly done acts as a transforming step towards self actualization for an individual. Till self realisation is achieved collectively the communities would expect someone else to do it.

10.6 Approaches to Training

The learning process in the training is strengthened more by learners' efficiency to learn than the trainers' efficiency to train. A training programme can achieve better learning efficiency of the learner through the following approaches to Training in addition to Class room sessions

- Participatory sessions
- Introductory Workshops & Public Relations and Awareness Building Campaign
- Practical sessions
- Exposure visits
- Sharing & learning
- Meeting sessions learning
- Model demo centres

10.6.1 Mentoring by BRC/Support organisation:

Mentoring is the major approach suggested in fulfilment of the mandate of empowerment on a sustainable basis. This is an innovative approach adopted to ensure the involvement of an agency for the project period and through different interventions (given out as part of the comprehensive package of the capacity building) to facilitate the community to integrate all these inputs and respond to the project requirements and in a holistic context achieve the avenues of development.

The Mentoring Agency is to the community and the community what a teacher or 'friend, philosopher, and guide' is to the learning student or individual. Here, the community is in the learning situation, where the various inputs are utilized for the development of its human resources, its readiness to involve in the interventions, and strengthen community cohesiveness to achieve independence and self-management. The Mentoring Agency builds the capacities of the VWSC/Village communities/CBOs in the various phases of initiatives, operationalization and transfer of management and ensures democratic functioning of the community structure at various levels.

10.6.2 Preparation of Manuals for Technical, Administrative, or Managerial Functions: There are already manuals and guidelines available for the use of DSWD in GoI and other states sector programmes. There are times when the most cost effective manner in which to instil a set procedure or process is to provide a well written manual of operations for use by the staff within the DSWD or other agencies. When those occasions arise, the DSWD will assign the most appropriate member of its staff, or seek an outside consultant, to provide a well-directed manual of procedure for use by the technical, administrative or managerial staff.

10.6.3 Frequently Asked Questions (FAQ) Contact Point/Helpline. The DSWD will early on establish key contact points within its own staff, for questions which the staff of the PRIs and various agencies can contact with questions on any and all aspects of their work and of the requirements being imposed or offered to them by the GoJ and GoI. These contact points will be both electronic, through a web-site to be established by the DSWD early on in the project, and telephonic, with accessibility to technical and managerial staff made available at all times. This can be regarded as a both a fall-back, and as a "quick, I need some advice" point of contact, where a staff member can talk with a peer known to him.

10.6.4 Establishing the Community Support Fund

There are some areas where the communities which are interested to take some model initiatives are supported with some funding support. As part of Capacity Building a Community Support Fund could be established especially for supporting the performing tribal dominated (>50%) villages. This money to be supported to the deserving villages based on their successful performance in the water and sanitation front based on their application to the DWSM. The conditions for this fund could be finalized by the SPMU/PMU.

10.6.2 Capacity building-A Step towards self-actualization

Efforts of DSWD in its Capacity Building activities will be aimed at promoting conditions outside as well as within the individual, that go on to build the right attitude on the strong foundation of knowledge that will be conducive for the individual's optimal growth. Against this backdrop of successes, DSWD will strive for the self-actualization of individuals and institutions, through a sustained Capacity Building strategy. Change management with the DWSD is critical.

10.7 Levels of Capacity Building
Capacity Building Requirements-Multi stage & Multi Level

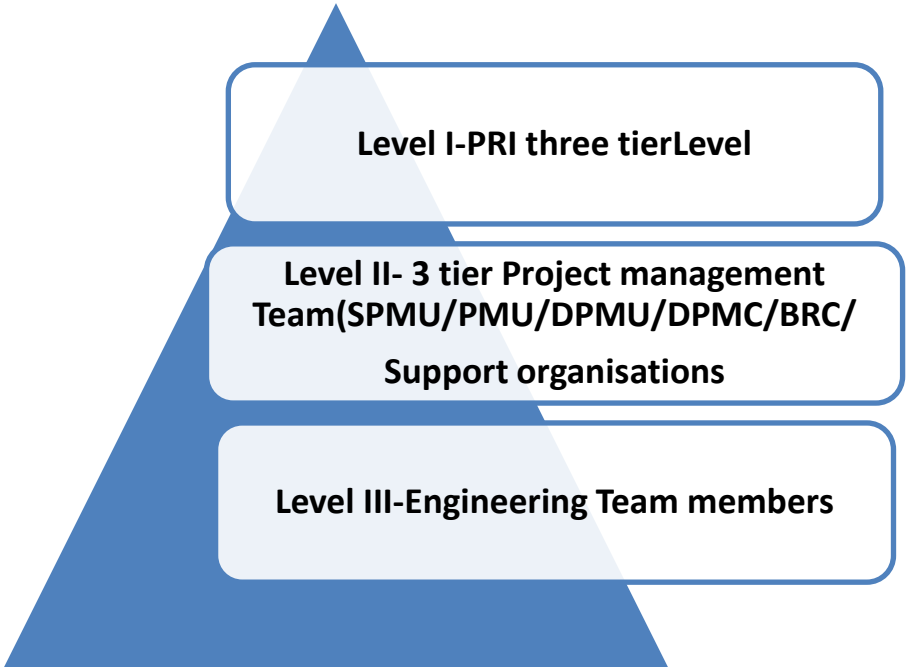
The capacity building strategy has to focus on Multi stage & Multi Level training programmes which transforms the current behavioural, technical, financial and managerial dimensions of the projects. The important among these are:

PRI and VWSC Orientation:

PRI's to be strengthened in a right based approach to these services and effective governance in water and sanitation. VWSC to be empowered through capacity building programmes to implement

it at the village level. The CB strategy handles two major themes, namely, Capacity Building and Technical Assistance. These two items work together to enhance the capacities of the PRI and VWSC by providing training, managerial and consultative inputs.

Suggested levels of training:
Level I-Village Level
Stage -I
Minimum 15 days of training in Soft skill training-leadership, Public speaking, confidence building, Project preparation, community mapping, micro planning, micro planning, Public speaking, Utilisation and O&M of assets.
Stage II
Minimum 9 days focus on technical dimensions of the project.
O&M-Technical details
The days could be reduced based on the need assessment of the participants.
There are roughly 33000 Village level functionaries, Jal Sahiyas and the state may need to design a JR&TC (Jal Sahiya's Resource & Training Centre), which can take up handholding and training on a sustained basis.
Level II- 3 tier Project management Team level-
SPMU team members
DPMU/DPMC team members
Block level (BRC/Support Organisation) team members
Level III-Engineering Team members:



10.7.1 CATEGORIES OF STAKEHOLDERS AND CAPACITY BUILDING/ TECHNICAL ASSISTANCE ACTIVITIES

The RWSS has various categories of stakeholders, cutting across different sections in the community, and hierarchy. The different categories of stakeholders and the type of Capacity Building interventions relevant for each of them are given in the following chart:

I. Social Mobilisation (Environment building focussing on change in Knowledge, Attitude and Practice)
II. Capacity Building (Training, Workshops, Reviews based learning and sharing, Exposure visits, Experts presentations, quarterly exhibitions at Gram Panchayt level)
III. Technical Assistance support (Planning support, DPR preparation etc)

IV. Mentoring/Handholding (by BRC/Support Organisation)
V. Community based Good initiatives fund (For the performing villages for scaling up some good initiatives,

Table- Category of stakeholders & Capacity Building interventions

Sl. No	Category of stakeholders	Social Mobilisation	Capacity Building	Technical Assistance support	Mentoring	Good initiatives fund
1	Community/Traditional tribal leaders/Organisations					
2	VWSC					
3	PRI					
4	(NGO/CBO/SHG/Faith Based Organizations					
5	Project management Team(SPMU/DPMU/BRC/ Support organisations					
6	**Engineering Team members**					
8	Other Stakeholders for Inter-Sectoral Collaboration **District Collector Chairperson Zilla Parishad*** Representatives from: Social welfare department Education department Women &Child Wel. Department					

Green shaded stakeholders are the recipients of the CB interventions

***District Collectors and the Chairperson Zilla Parishad will have to play a charismatic leader's role in this mission of water and sanitation.**

It is evident from the above that the list includes wide range of hierarchical positions, differential levels of education, and involvement with the community. The CB interventions also have to be designed both in content and methodology to accommodate the same. CB activity is expected to result in better functioning of these categories of people within the area of their work, as well as qualitative inputs for the DSWD based on their understanding of the programme nuances and their own role in strengthening them.

Thus with reference to the primary stakeholders at the community level, the roles and responsibilities of the various members as belonging to the structure, would help them to understand the role expectation of them in the community. For example, the newly elected PRI/VWSC members would be given specific inputs on the scheme under which the PRI/VWSC system has been constituted, its philosophy, and the role expectation of them. This would greatly help them to play a more proactive role in the community and take leadership in water and sanitation program.

On the other hand specific inputs are also required to understand the participatory nature of the RWSS Scheme, and the need for a pro-active role of the members to solicit the involvement of the community for good results. The strategy of community involvement in the social mobilization, base

line data, community planning, monitoring and O&M should be taken as a result of the exercise and inputs of the PRI/VWSC would enable them to play a more active role in the process.

10.7.2 Training needs of the VWSC, Tribal leaders and community based organisation:

During the field level interaction the following training needs were assessed to support the VWSC, Tribal leaders and community based organisation

- Taking up series of Capacity building activities on the following:
  - -KAP building
  - -Skill Development
  - -Collective behavior
  - -Personality/leadership/communication development

-Healthy & hygiene practices
-Micro planning
-Collective activity
-Community contracting
-Problem identification /strategy formulation /budgeting/ implementation /monitoring/ evaluation of projects
-Collective acquisition and ownership of assets
-Linkages with development avenues
-Regular group and inter group sharing of experiences and building up best practices
-Understanding the functioning of society-level structures
-Encouraging participation in all RWSS related and other participatory components of the government
(Source: Qualitative data based on stakeholders interviews by the consultant)

10.7.3 Schedule of Training/Technical Assistance

The training input need to be slow and steady so that the stakeholders absorb the knowledge reinstates the changed attitudes and support a better practice. Any capacity building programme aims at shifting the Knowledge, Attitude and Practice from the current level to a higher level.
The consultant suggests the following phase wise capacity building and technical assistance support.

Phase wise capacity building plan:

Sl.No	**Phase I**	Awareness	Capacity Building	Technical support
1	Community Driven Social Mobilisation-3rd to 6th month	Good IEC & BCC Campaign to forerun the planning process	VWSC members roles & Responsibilities(including the Jalsahaiyas & women PRI Members) Social mobilization techniques Baseline village data collection skills	DPMU/DPMC/Support organisations support in Baseline village data collection exercise
2	Community Driven data generation/mapping exercise-4th to 5th month	In a backward village the IEC & BCC Campaign to run parallel	Village plan/DPR preparation skills	DPMU/DPMC/Support organisations support in Baseline village data collection exercise

	Community Driven village planning exercise-5th to 6th month	In a backward village the IEC & BCC Campaign to run parallel		DPMU/DPMC/Support organisations support in village plan exercise & DPR Preparation
	Phase II			
3	Community Driven implementation exercise-7th to 15th month		Water and sanitation technical issues Project execution skills	DPMU/DPMC/Support organisations support in community monitoring of the project implementation
4	Community Taking over of the WATSAN assets		O&M skills Project sustainability skills	PRI/VWSC
	Phase III			
5	Community Driven taking over & O&M-16th to continuous		Monitoring & evaluation skills	PRI/VWSC
6	Community Driven Social Audit exercise-16th to continuous			PRI/VWSC

This demands trained Jalsahaiyas, community volunteers, SHG members and faith Based organizations of any religious denominations to take forward the Water and Sanitation components on a mission mode.
The capacity building and hand holding support has to precede with a well designed social mobilization (environment building) lasting between 3 to 6 months (based on the status of backwardness of the village) gives a strong base to the CDD approach.

The following are the sequential time frame for a CDD approach:

- Community Driven Social Mobilisation-3rd to 6th month
- Community Driven data generation/mapping exercise-4th to 5th month
- Community Driven village planning exercise-5th to 6th month
- Community Driven implementation exercise-7th to 15th month
- Community Driven O&M-16th to continuous
- Community Driven Social Audit exercise-16th to continuous

10.7.4 Tentative Budget Requirement

Total tentative budget arrived for the project period relating to the Capacity building related components is INR 250-280 Millions (includes training cost and out sourced agency/personnel cost). This budget would undergo changes based on the feedback of the DSWD, GoJ.
Budget for State Level Training Centre to be out sourced agency/personnel/ it is suggested 10% cost of provisional sum (stated below) may be earmarked from the proposed total investment.

10.8 Expected Impacts of the Capacity Building and Technical Assistance

The overall positive impacts of the component will include:

- Better provision and access to water and sanitation facilities
- Right based approach to seek water and sanitation services
- Improved capacity to manage water and sanitation activities at local level
- Increased health and hygiene practices

- Equitable distribution of the benefits of the project to the communities through village planning skills
- Reduction in the diseases relating to improper disposal of waste water due to improved
- Enhanced quality of healthy life
- Improved health by increased awareness about water, hygiene and sanitation;
- Increased participation in the planning, implementation and monitoring of the component related activities;
- Increased capacity and competence to address and to take up issues related to water and sanitation.

10.9 Profile of training institutions available in the state for the Capacity Building programmes:

10.9.1 Vishweshwaraiya Sanitation & Water Academy (ViSWA) is an exclusive training institution for training in Water and Sanitation sector.Vishweshwaraiya Sanitation & Water Academy (ViSWA) has been established by Drinking Water & Sanitation Department, Government of Jhakrhand as a key learning centre at Kanke, Ranchi. ViSWA intend to outsource regular training programmes for different stake holders in this institution on the basis of mutually agreed MoU.

Vishweshwaraiya Sanitation & Water Academy (ViSWA) -Currently use the support of external resource persons. A tie up with Xavier Institute of Social Sciences, Ranchi is suggested, which has good human resources and other required equipments for training.

10.9.2 Xavier Institute of Social Sciences, Ranchi:

The institute is committed to the community development initiatives. There is a Knowledge Management Centre, GRCs are also proposed in the communities, Capacity Building, Gender Inclusive strategy development, IEC development for the relevant themes. Discussions with Xavier Institute of Social Sciences revealed that they are currently supporting the National Aids Control Organisation (NACO) GOI through its Stale Resource and Training Centre**. They stated that they can conduct above mentioned type of trainings both at state and district/Block level.**

10.9.3 IL&FS Education:

IL&FS Education states that it creates and delivers customized programmes for comprehensive capacity building and empowerment solutions for Government Employees, beneficiaries of the National Rural Employment Guarantee Scheme (NREGS), Panchayati Raj Functionaries and the armed forces including the police and paramilitary forces. IL&FS training programmes also state that it inculcates a feeling of ownership towards jobs, enhance self-esteem, build team spirit and leadership qualities. Their interactive methodology includes participant centric activities, unique peer interactions, hands on computer, group and individual exercises, problem solving activities, self-introspection and reflection. They claim to have trained more than 8,00,000 government employees in various organizations including Delhi Police, ASHA workers and Block Development Officers in various states.

10.9.4 State Institute of Rural Development (SIRD):
The Institute was originally set up by Ministry of Food, Agriculture, Community Development and Co-operation (Department of Community Development), Government of India as “DEVELOPMENT OFFICERS TRAINING INSTITUTE”, when Community Development Programmes first started in the country. The Institute was set up to impart training to the Block level functionaries in the Community Development Programmes from Bihar After the bifurcation of Bihar and creation of Jharkhand State, the Government of Jharkhand changed the name as “STATE INSTITUTE OF RURAL DEVELOPMENT” in the year 2002. At present, the institute has capacity to train 100 trainees at a time at its campus.

This institute works under Rural Development department of the state of Jharkhand. NIRD, Hyderabad also supports this institute in developing training skills of the faculties of this institute. There is another training institute in the state called Central Training Institute (CTI), Ranchi. The main task of this institute is to provide training to Gram Panchayat Supervisor, Panchayat Sewak, Dalpati etc[43].

10.9.5 Rashtriya Technical Institute (RTI)

RTI is based in Jamshaedpur and provides relevant training in Land surveyor, Piping, foreman, Electrician Water Treatment, Fitter and Fabricator, etc.

10.10 List of Institutes outside Jharkahnd for capacity building for various functionaries are:

- National Institute of Administrative, Mussoorie (NIAR)
- WSSO/CCDU, Uttarakhand
- Communication and Capacity Development Unit, MANIPUR
- Centre for Good Governance (CGG), Hyderabad
- National Institute of Health and Family Welfare (NIHFW)
- CCDU DWSS Punjab, PUNJAB
- Water, Sanitation & Hygiene (WASH) Institute / Plan India
- National Institute of Rural Development (NIRD, Andhra Pradesh)
- The Energy and Resource Institute TERI, Patna
- Engineering Staff College of India, Andhra Pradesh
- XLRI, School of Business & Human Resources, Bhubaneswar
- Institute of Rural Management, Anand (IRMA)

10.11 Executing Capacity Building and Public Participation in the Water and Sanitation Program:

GoJ has rightly dedicated an academy Vishweshwaraiya Sanitation & Water Academy (ViSWA) for training its team members in water and sanitation sector. Visit to ViSWA and discussion with the training coordinator reveals that there is infrastructure and facilities available for meeting the centralised training requirements for this Water and Sanitation Mission Project of Jharkhand. The training coordinator explained about the out sourced programmes conducted by ViSWA. But it was also observed that the Resource Person required to do technical and capacity building is inadequate within the state.

It is absolutely necessary to strengthen the centre with personnel and technical resource to elevate this centre to WATSAN centre of excellence. For procurement the following options are suggested:

I. Partnership with XISS for Community/Social engineering related Training of Trainers at State level and District Level tie-ups through ViSWA.
II. Taking Senior Engineers (On duty or retired) with interest and charismatic leadership on deputation/contract to handle technical matters.
III. Take Education/Health/Rural Development department personnel (On duty or retired) with interest and charismatic leadership on deputation/contract to handle convergence related matters.

[43] http://www.sirdranchi.nic.in/

11. INFORMATION EDUCATION AND COMMUNICATION (IEC) STRATEGY

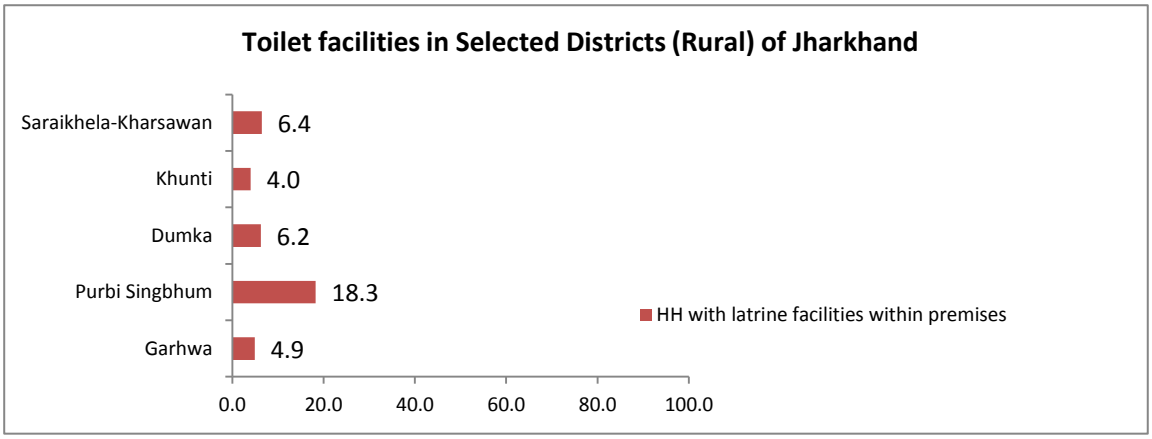
IEC is a package of planned interventions which combine informational, educational and motivational processes, as a component of a national programme. It aims at achieving measurable behaviour and attitude changes within specific audiences, based on a study of their needs and perceptions. IEC has to be well articulated with the provision of relevant products and/or services.

The broad objectives of Communication Needs Assessment

- To identify and prioritize the audience for communication related to drinking water and sanitation
- To gain an 'insider' understanding of the various target audiences with regard to drinking water and sanitation.
- To assess the current knowledge, attitudes, values and perceptions, preferences, practice, and beliefs of the audience regarding drinking water and sanitation
- To understand psychological factors that motivates audiences to safer behavior.
- To identify the existing drinking water and sanitation related communication materials, media, and interventions.
- To identify communication approaches and means of communication most effective for various audiences.
- To identify existing human resources/ institutions for providing IEC to the Jharkhand DWSM

A. Behaviour challenges

1. **Open defecation is a socially accepted traditional behaviour**. Most rural and tribal people in Jharkhand are so habituated with open defecation, that they do not even perceive it as an issue. Moreover, water for drinking purpose and other household use have to be collected from sources outside the household. So if they are to use toilets, then they have to collect and store more water. To add further, the quality of toilets provided in recent times was of such inferior quality, that the trust of the community is lost.[44] The Census 2011 reports very low availability of toilets (within premises) in the selected districts of Jharkhand.



[44] Interactions with women, girls and community members (Purbi Singbhum and Khunti Districts)

Type of latrine facility mainly used				
District	**Open Defecation**	**Flush/ Pour Flush Latrine (Connected)**	**Pit Latrine (without Flush/ Pour Flush)**	**Service Latrine**
Dumka	92.2	2.1	5.7	0.0
East Singhbhum	82.8	5.2	12.0	0.0
Gadhwa	90.6	2.6	5.7	1.0
Khunti	79.2	5.2	14.1	1.6
Saraikela-Kharsawan	79.2	7.3	13.5	0.0

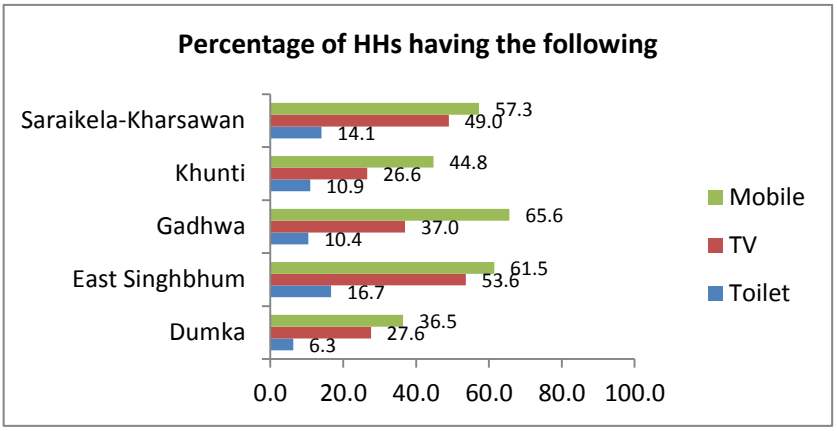
The Household Survey Data also reiterates the fact that defecating in the open is a general practice among rural people in these selected districts of Jharkhand.

2. **Lack of awareness of the linkages between using a toilet, the safe disposal of faeces and hygiene and health.** Improved sanitation is not prioritized in many households and the links between open defecation and common diseases, including diarrhoea are not understood. Practicing open defecation creates an environment where disease transmission takes place and it is young children in particular who pay the highest price. Over 80% of all deaths due to diarrhoea among children under-five years of age are directly attributable to poor sanitation, unsafe drinking water and unhygienic practices. However, most communities do not view diarrhoea as life threatening.

   Respondents were asked about the problems they face or associate with open defecation and were asked to prioritize in terms of most important second most important and third most important. Only 10% respondents from Saraikela-Kharsawan cited health issues as third most important. Most of the respondents did not associate any issues with open defecation. The members of the tribal community are so familiar with the woods and bushes all around their areas, that women do not even feel insecure. Adolescent girls do not attend school during menstruation as a practice and also as the school toilets remain locked.

3. **Access to a toilet does not always mean it is used or maintained.** Ownership of a toilet does not always lead to better adoption of sanitation and hygiene practices. Often faulty design, lack of proper maintenance, lack of knowledge about proper toilet usage and insufficient running water in the vicinity raises dissatisfaction levels, resulting in a return to open defecation. Along with highlighting the relevant benefits of constructing toilets there is an urgent need to provide information about the availability of improved and affordable design options and how these can easily be maintained.
   For instance, East Singbhum constructed around 1,26,967 IHHL for BPL households (131%), but none of the toilets exist now, due to faulty designs, poor quality raw materials and lack of proper maintenance. Moreover, the efforts were not backed-up by effective IEC interventions to raise awareness of people to use toilets.

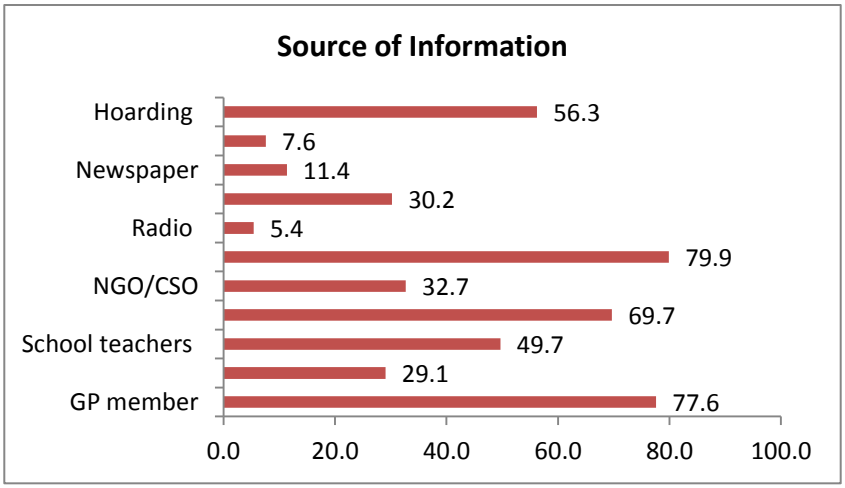
4. **Building and owning a toilet is not perceived as inspirational.** Construction of toilets is still seen as a government responsibility, rather than a priority that individual households should take responsibility for. As such people prioritise buying a mobile phone or TV rather than investing in, using and maintaining a toilet. The challenge is to motivate people to see a toilet as fundamental to their social standing, status and well-being.



The chart clearly shows that people have invested in buying televisions and mobile phones, but do not feel the need to invest in making a toilet at home. The toilet is not a priority and that is something that is the responsibility of the government to provide. For instance, when the households whose toilets were damaged in the Patamda village were asked why they did not repair the toilets, they said that *since the government made it, it is their responsibility to renovate it*.

- Lack of role clarity. Jalsahiya – who is perceived to be a key player in water and sanitation activities have not been adequately sensitized or inducted but have received training on hand-pump repairing and maintenance.

B. Findings from the Household Survey



The rural community is mostly aware about the MGNREGA, IAY, MDM and PMGSY programme of the government. Awareness about NRDWP and NBA is very low. Knowledge about ICDS programme is not very impressive.

On an average, the people receive information about various government schemes from friends and relatives (79.9), from GP members (77.6), from AWW, ANM, ASHA (69.7) and from hoardings (56.3). It is important to notice that very few people have received information from radio, promotional activities and newspapers. In the districts, information is received mostly from GP members, friends and families. It is interesting to note that hoardings also play a significant role in capturing the attention of the rural community. Regular village level functionaries like the ANM, the AWW and the ASHA are crucial information links for the government. School Teachers play significant role too. Respondents from East Singbhum and Saraikela-Kharsawan reported that they

received information from Television too. Khunti and Saraikela-Kharsawan reported of some promotional activities. People have also received some information from NGOs across all the five districts.

	Street Play	Folk Song	Hand Bill	Rally
Dumka	2.6	6.3	51.6	24.0
East Singbhum	8.9	5.7	78.1	32.8
Gadhwa	2.1	2.6	51.6	23.4
Khunti	8.3	7.3	52.6	24.0
Saraikela-Kharsawan	9.9	2.6	74.5	24.0

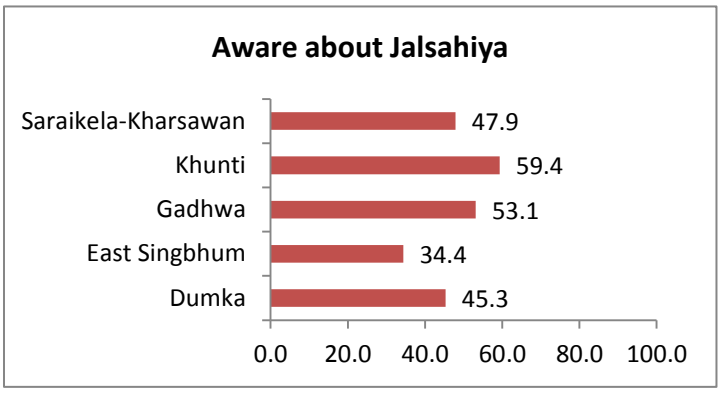
Most of the respondents could recall initiatives like distributing handbills and rallies by school children as promotional activities for drinking water and sanitation in the village. There was very poor response at Gadhwa related to street plays and folk songs.

Only 11% in East Singbhum and 12% in Saraikela-Kharsawan responded that Gram Sabhas are organised regularly. Respondents from Dumka, Gadhwa and Khunti were not aware of Gram Sabha meetings.

	Radio	Newspaper	T.V
Dumka	0.0	7.8	26.6
East Singbhum	2.6	21.4	55.2
Gadhwa	0.5	13.5	33.9
Khunti	1.6	8.3	28.1
Saraikela-Kharsawan	2.1	12.0	55.2

East Singbhum and Saraikela-Kharsawan being more urban areas – people here watches television more than the other four districts. Nearly 21% people reads newspapers in East Singbhum. People who watch television were asked whether they watch programmes broadcasted by government responded that it depends on the theme of the programme.

Only 3.6% in East Singbhum and 3.1% in Saraikela-Kharsawan are aware of the grievance-related Helpline number and have called that number for assistance.



Awareness of respondents from Khunti district related to Jalsahiya was the highest 59.4%. Among the ones who knew about Jalsahiya, very few stated that she has discussed issues related to water and sanitation with the community. Most of the people who responded stated that the role of Jalsahiya *"is to repair and maintain handpumps…"*

The major festivals and fairs in these five districts as reported are as follows:

	Tribal festivals	Hindu festivals	Muslim festivals	Christian festivals	Others
Dumka	Tusu, Sarhul, Sohrai, Magh puja, Karma Puja, Janthad, Bandana	Makar Sankranti, Durga Puja, Kali Puja (Diwali), Holi		Good Friday, Christmas	Manasa Puja, Shiv ratri, Basant panchami
East Singbhum	Tusu, Sarhul, Sohrai	Makar Sankranti, Durga Puja, Kali Puja (Diwali), Holi			
Gadhwa	Magh Puja, Karma Puja	Chath Puja, Makar Sankranti, Durga Puja, Kali Puja (Diwali), Holi	Eid, Bakri-Eid, Muharram, Shabe-barat	Good Friday, Christmas	Janmashtami, Navratri
Khunti	Tusu, Sarhul, Sohrai, Karma Puja, Faguh, Juitia	Makar Sankranti, Durga Puja, Kali Puja (Diwali), Holi		Good Friday, Christmas	Saraswati puja
Saraikela-Kharsawan	Tusu, Sarhul, Sohrai, Karma	Makar Sankranti, Durga Puja,	Eid, Bakri-Eid, Muharram		Manasa Puja, Shiv ratri,

Puja	Kali Puja (Diwali), Holi Chath Puja, Visvakarma Puja	ganesh puja

Key Assumptions and Perceptions of Primary Stakeholders related to drinking water, sanitation, drainage and hygiene

Primary Stakeholders	Assumptions and Perceptions	
	Drinking Water	**Sanitation**
Rural Community	Water from well and some hand-pumps do not taste good. Iron / chemical contamination is prevalent Government do not take care of the hand-pumps adequately A lot of time is invested in collecting water every day. The burden is on women as they are the ones who collect water In summers, hand-pumps dry up Piped-water is safe to drink Piped water will not be enough for the family. Regularity and quantity will be problem Weather piped water supply be adequate even during summers It is the responsibility of the government to provide clean and pure water, so why should they charge for that – people are very poor to pay for such services Who will repair the taps and pipes? It takes so long to repair a hand-pump in the village	People are habituated to open defecation. They feel uncomfortable in closed toilet Women cannot go out during the day-time; they have to wait till it is dark. There are threats of insects and animals Cleaning toilets after use is a major problem. They need to collect and store more water Drainage system is a big problem in the overall cleanliness of the village Waste water from households gather outside No garbage disposal system in the village Sanitation and drainage are the responsibilities of the government Hand washing after defecation is in practice, but before having food is not that common. Children do not wash their hand before eating and they play in the open, most of the time.
Jalsahiya	People may not agree to pay The VWSC members are reluctant to attend meetings The installation cost is very high (Rs.2100/-) at Khunti Some HHs have more water force that others Contractors do not complete the project on time, they leave unfinished works because they do not receive timely payment	Availability of water and cultural practice are impediments to adopting toilets The toilets are very small and people do not have the money to upgrade them. Since the toilets are constructed by Government, they will also bear the repair and maintenance A lot of convincing is required for people to adopt IHHL

	O&M is a big issue. The contractors have not paid the pump operator	Hand washing and cleanliness drives have been organised with school children

Evidence also shows that trying to change too many behaviours does not work. This is why the Strategy would focus on only *four critical sanitation and hygiene behaviours-*

1. Building *and* use of toilets
2. The safe disposal of child faeces
3. Handwashing with soap after defecation, before food and after handling child faeces
4. Safe storage and handling of drinking water

DESIGNING THE IEC STRATEGY

The IEC Campaign designed through this initiative would inform, educate and persuade people to realize their roles and responsibilities, and benefits accruing from investing in right practices. It would take into account the barriers and variables related to infrastructure, socio–cultural practices and traditions. The focus of all communication activity would be on awareness, sensitization and motivation of people to follow right hygiene, sanitation and water handling practices.

The Vision of the Communication Strategy

Every family, including children, in rural areas will realise the importance of a healthy environment and adopt sanitation facilities along with positive hygiene and behaviour

Behaviours for water supply and environmental sanitation activities mean that individuals and communities must develop daily practices sustainable throughout a lifetime. In order to sustain these practices, it is necessary to not only provide knowledge and skills to individuals and families and to reinforce and monitor those behaviours locally, but also to establish community and national systems of supply and maintenance of materials and equipment. Thus, interventions don't begin and end with an individual or with a family. Interventions must involve districts, regions and states.

The **overall objective of the communication strategy** is to attain a positive behavior change among the stakeholders with respect to hygiene, sanitation and use of safe water. This will include enhancing knowledge regarding sanitation, hygiene and safe water encouraging conversion of the knowledge in to practice.

- Increase mass awareness levels and make the identified audiences more conscious about issues related to the importance of sanitation and hygiene;
- To influence decision makers and opinion leaders to advocate for improved sanitation and hygiene standards, thus creating an overall positive environment; and
- Ensure that households have knowledge of the linkages between sanitation, hygiene and health leading to increased public demand for quality sanitation services and adoption of hygiene practices.

The **three main strategies** adopted are:

- **Advocacy** to raise resources and political and social leadership commitment for development goals;
- **Social mobilisation** for wider participation and ownership; and
- **Programme communication** for changes in knowledge, attitude and practice of specific participants in programmes.

When combined with the development of appropriate *skills and capacities*, and the provision of an *enabling environment*, communication plays a central role in positive behaviour development, behaviour change and empowerment of individuals and groups.

Evidence shows that the most effective approach leading to behaviour change is a combination of efforts at all levels – individual, interpersonal network, community and societal. For effective communication, different levels are reached with different communication approaches:

Strategies	Communication Approaches		
Advocacy	**Engaging key stakeholders**	**Building alliances and partnerships**	**Influening public policy** - with information and to raise the issue of sanitation higher in the policy agenda and in the minds of the people
Social mobilisation	**Community mobilisation** - to initiate dialogue among community members to deal with critical issues of sanitation and hygiene and also provide a platform for the community to participate in decisions that affect their daily lives	Mass media, outdoor media, folk media	**Social marketing** - to promote adoption of behaviours and create a demand for services and supplies that help practice that behaviour
Programme communication	**Inter-personal communication** - is the *key approach* of this strategy to *raise awareness* on the importance of sanitation among the	**Entertainment education** - to disseminate messages which are educational in substance, entertaining in	**Mass media, outdoor media, folk media** - to raise mass awareness, promote the 4 critical behaviours and programme

	rural community and support the increased interest and willingness to *uptake* sanitation and hygiene practices	structure and popular in the community, in order to promote sanitation and hygiene messages by building on and coordinating with the above efforts	information. Simultaneously also provide support to interpersonal and community mobilisation efforts by reinforcing and raising the credibility of the message carried by non-professionals

Key Stakeholders

Audience segmentation allows for better designed, more focused and more effective messages. For this phase the audiences have been segmented into primary and the secondary audiences/stakeholders. Primary audiences have been identified as those who are directly being addressed to change their behaviour. The secondary audiences include people from the society or other groups who influence and support the primary audience in changing their behaviour. It also includes grass-root functionaries, agencies and leaders who need to endorse and support the programme and contributes towards making an enabling environment for the easy adoption of the behaviours.

Village level		GP Level	Block Level	Division Level	District Level	State Level
Direct Beneficiaries	In-direct Beneficiaries	Direct Beneficiaries	Direct Beneficiaries	Direct Beneficiaries	Direct Beneficiaries	Direct Beneficiaries
• Rural Households – women with young children • Village Water and Sanitation Committee – Jalsahiya • Women's groups / SHG members	• Members of Youth Clubs • ASHA / SAHIYA, AWW, ANM • Local masons and plumbers, mechanics • Religious heads	• Mukhiya • Ward Member • CBOs	• Pramukh • Hand-pump mechanic • Junior Engineers • NGOs	• Sub-Divisional Engineer	• Executive Engineer	• Superintendent Engineer • Chief Engineer • SWSM
		• Cluster Resource Cell members	• Block Resource Cell members		• DPMU and DPMC staff	• PMU Staff
		In-direct Beneficiaries	In-direct Beneficiaries			In-direct Beneficiaries
		• Traditional panchayat member	• Block Development Officer			• Department of Health and Family

	School Teachers	Block Medical officer ICDS -CDPO	Welfare Department of Panchayati Raj School Education Department Women and Child Development Department

Proposed IEC activities

ADVOCACY

- **Evidence-based advocacy package**: An evidence-based advocacy package to be developed, including fact sheets, human interest stories and power point presentations on relevant sanitation and hygiene issues. The package will be used for one to one meetings with policy makers and also for the orientation of elected representatives (i.e. PRIs and legislators) in order to garner their support in the implementation and lobbying with the government on hygiene and sanitation issues.
- **Media kit for journalists:** Partnership with both national and regional media to be encouraged. Development of media kits including human interest stories, fact sheets, photo essays and stand-alone pictures on sanitation. The package creates awareness among all stakeholders on sanitation and its health implications. A CD containing photo images and graphics on sanitation for easy replication can be included.
- **State fact sheets:** Snapshots from states to be developed using census and other data. Once the baseline data is available from the districts, it can be complied into a summary and a presentation made to the state and central government counterparts, particularly for district collectors.
- **Field visits:** Exposure visits to field for media, celebrity advocates and elected officials to be conducted to increase awareness on sanitation issues and increase civil society participation.
- **Process documentation:** Distinct process documentation products to be developed: 'Good Practices', 'Lessons Learned', 'Innovations', and 'From the Field.' The focus will be to choose one or two particularly valuable examples on hygiene and sanitation.
- **Seminars and conferences:** National conference/s for scaling up nationally and regionally best practices on hygiene and sanitation to be organized. District collectors from the states to meet and share initiatives at both state and district level. Lessons learned will help inform and improve implementation.

- **Strengthening institutional capacity:** One of the key focus areas of the advocacy strategy would be to strengthen the existing institutions in the state working on sanitation and hygiene. This would include strengthening the capacity of key opinion builders and policy makers, including NGO workers and nodal institutes at the state level.
- **Private sector partnerships:** Corporate and other partnerships to be cultivated to assist in campaign development, messaging and dissemination and support in programme implementation.

SOCIAL MOBILISATION

- **Community mobilisation:** Most effective in rural settings, where communities form closely intertwined units and if supported by opinion leaders and other influential sources, change can be effectively introduced from within, making it stronger and more sustainable. Jalsahiya can also play an instrumental part in promoting the mobilisation in favour of certain practices. Communities will be invited to actively participate in planning and implementing behaviour change communication activities to promote improved sanitation and hygiene. *Community mobilisation is essential for desired practices to become the norm in the community.*
  - Activate social networks (community leaders, volunteers, women groups) and encourage peer communication to reach remote areas in order to disseminate information about the benefits of sanitation and hygiene.
  - Train community leaders in facilitating public educational talks and dialogues in their communities about sanitation and hygiene issues.
  - Produce a tool kit, including a how-to guide for community leaders.
  - Promote and implement participatory planning processes to involve local stakeholders in supporting key interventions.
  - Reinforce information given at religious and other social gatherings.
- **Strengthen Gram Sabha Meetings and other Community Meetings:** These are open meetings, both at community or block level where key stakeholders can participate in dialogue about the new practices and behaviours. Here no messages are imparted, but rather themes are raised and knowledge is shared about what will the adoption of the proposed behaviour imply and also what are the implications if those changes are not adopted. Such meetings are aimed at having stakeholders face the issue themselves and realize the need to change. Once this happens, they will become agents of change providing valuable support to the overall intervention.
- **Social marketing activities:** Social marketing activities will be used to promote the adoption of specific practices and products aimed at improving the sanitation and hygiene situation. This will include gaining an understanding of customer behaviours and drivers of consumer demand. Based on the understanding, products and services will fit the felt needs of the different consumers/user groups.
  - Developing methods for effective distribution (such as sanitary marts) so that when demand is created, consumers know where and how to get the products and services.
  - Ensuring availability of competent service providers, building their capacities and certifying them.
  - Ensuring that consumers / users are willing to contribute something in exchange and keeping the pricing reasonable so that the product or services affordable.
- **Mass media:** This is an important medium to communicate effectively with a large number of people by leaving them with a powerful image. It can overcome barriers of literacy and language and it is ideal for delivering a simple, clear and focused message. In this Strategy mass media is expected to provide the type of support that has been extensively documented in public health. It can support community mobilisation and interpersonal communication efforts; promote specific behaviours through multiple activities and products such as radio and TV public service announcements, radio and TV magazines, and radio and TV shows; enhance the credibility of non-professionals such as community volunteers as reliable sources of information and services; convey important logistical information easily, for example, about where applications for toilet construction can be submitted.
- **Outdoor media:** Outdoor media such as, wall paintings, hoardings and traditional mediums like folk theatre will be used. In this strategy, mass media will be closely linked with and reinforce other communication efforts.
- **Public service announcements:** Appeals will be developed including some with national / state celebrities on hygiene and sanitation for broad dissemination through radio and television. They will be developed in different regional / tribal languages for better reach and acceptance.

- **Mobile media campaign:** The aim of the campaign would be to build awareness and create a movement demanding adequate sanitation and hygiene standards for the state to stop open defecation. Activities will include recording a mobile voice message with a celebrity emphasizing cleanliness and hygiene, which can be sent out to citizens via partnership with a mobile telephone company. The message will be interactive by giving options to the mobile phone user.
- **Social media:** Facebook pages, YouTube, SMS campaigns and other social networking tools to be used to engage (especially youth) in promoting the campaign and generating awareness. The objective is to get the issue of open defecation, sanitation and hygiene out in the open and talked about.
- **Print and audio-visual communication:** Press releases and video packages to be used as communication tools to generate interest of journalists. Partnerships with key media (in print, radio, television and internet) will be leveraged to promote hygiene and sanitation issues over the duration of the campaign.
- **Celebrity spokesperson:** A celebrity spokesperson to be identified to promote the campaign. The spokesperson will talk about the issue at appropriate forums and will be available for the duration of the campaign.

PROGRAMME COMMUNICATION

- **Interpersonal communication (IPC):** An interactive medium, it helps in providing detailed information to the audience. It also allows for immediate feedback on ideas, messages and practices. Interpersonal communication will make effective use of existing social networks or interpersonal relationships (family, friends, acquaintances, neighbours and colleagues) that bind people together to enhance the communication process. IPC is a key tool in the drive for not only increasing awareness but actual toilet construction and usage. It will be used extensively for follow-up, especially after households realize the benefits of toilet to ensure toilet construction and use. Jalsahiya, VWSC, traditional leaders, youths, PRIs and NGO staff (Support Organisations), religious groups, clubs and community gatherings will promote sanitation and hygiene using interpersonal communication.
- Conduct face-to-face and small group counselling sessions to negotiate and discuss:
  - traditional beliefs and practices that might prevent families from adopting toilets or hygienic practices
  - link between unsanitary practices and diarrhoea and other illnesses
  - toilet options and programme incentives
- Train frontline workers to improve interpersonal communication skills, in particular in counselling/negotiation.
- Strengthen interpersonal communication skills among community volunteers so they can give information and counsel effectively during home visits.
- Organize community volunteer-led home visits and small group educational meetings.
- **Entertainment education:** Street theatre, radio dramas, school plays, songs, games, and stories will be widely used to promote sanitation and hygiene messages. These activities will be coordinated with other communication activities so that the message sent across is consistent from all channels. Outdoor media and traditional media: According to the context, the stakeholders and the resources available, a mix of different media to be used to sensitize on key aspects of the NBA and promote key behaviours. The communication medium can range from the more common ones, such as hoardings and wall paintings as well as traditional ones, such as folk arts and theatre and will be used as reinforcement to IPC and community mobilisation activities.

IEC Implementation Plan for Safe Water, Environmental Sanitation and Home Hygiene

COMMUNICATION STRATEGY	PARTICIPANTS/ GROUPS	MESSAGES	CHANNELS	COMMUNICATION MATERIALS	M & E INDICATORS
ADVOCACY	Political and Religious Leaders at regional and community levels	Understanding the importance of sanitation and information on government initiatives for total sanitation NBA programme; the different components of NBA importance of communication within the NBA, the challenges of implementation and solutions key stakeholders' roles and responsibilities in implementation Sharing relevant sector and programme information to build alliances/partnerships to bring in support for sanitation and hygiene programmes	Individual meetings with senior leaders; Small group meetings with regional and local leaders (traditional Panchayats) Reinforcement materials Sensitisation workshop Field/exposure visits Seminars/ conferences Public private partnerships	Pamphlets containing advantages of Interventions and social costs without them Testimonials from leaders of neighbouring states / districts Speaking points	Number of times mentioned in public statements Number of meetings conducted by these leaders on this topic Number of interventions being implemented
SOCIAL MOBILISATION	Inter-sectoral, and regional planners groups Community leaders, NGOs and CSOs	Learn the role of inter-sectoral co-operation Correct knowledge of Sanitation: know the dangers of open defecation and need for correct hygiene practices understand and acknowledge the need for building, using, and maintaining a toilet. Correct knowledge of Hygiene practices: understanding why safe disposal of child faeces is important/ risks related to not disposing child	Inter-sectoral meetings Research reports Community meetings Field observation visits to "model" communities Demonstration sessions. Using mass media (TV, Radio, Newspapers) Using mobile media (SMS alerts Engaging the social media Promotion through a	Pamphlets. Reports: research as well as of "model" communities Agendas for community meetings Activity guide for Community meetings. Posters on how to break the cycle of infection Posters re: hand washing Wall-writing, hoardings TV and Radio spots, programmes	Number of meetings held Number of pamphlets posters produced, distributed and used Number of field visits Number of water, sanitation systems installed and used. Reduction in DD Number of different community

		faeces safely and ways to dispose child excreta safely know the critical times of hand-washing with soap-after defecation, before food and after handling child faeces describe the benefits of hand-washing with soap/risks of not washing hands with soap at critical times know how to safely store and handle drinking water/risks related to drinking contaminated water How to request safe water supply	Brand Ambassador – (Actress Vidhya Balan is already being used at the National Level.) Using someone like M S Dhoni or Ravi Kishen at the state level Peer-to-peer Programme with School Children	Mobile phone voice messages, SMS Video film on Sanitation, Home-Hygiene, safe drinking water Image of Bhagwan Birsa Munda advising hygiene practices "Gaon Safai Abhiyaan" with local youths	programmes undertaken
PROGRAMME COMMUNICATION	Community leaders and members Households Child caregivers. Hand pump Maintenance volunteers	Correct knowledge of sanitation and government programmes: understand the benefits of using toilets regularly and acknowledge need for toilet describe the different sanitary options available and awareness of the cost awareness about government sanitation programme understand the processes involved in building a toilet Correct knowledge of hygiene practices: caregivers know why safe disposal of child faeces is important/ risks related to not disposing child faeces safely and ways to dispose child excreta safely- dispose in a toilet; bury at a safe distance from home know the critical times of hand-washing with soap- after	Small group meetings Visits by satisfied acceptors Monitoring by health workers Performances by traditional media Multi-media campaigns including-mid media and traditional media Entertainment education Social marketing	Agenda for community meetings Counselling guide and script for interpersonal sessions Monitoring scripts for health workers Posters for health and community centres Radio and television spots series showing families, friends, neighbours, communities dealing with environmental sanitation and hygiene issues Traditional media dealing with environmental sanitation and hygiene issues.	Number of meetings held Number of household visits (by health workers and satisfied acceptors). Monitoring reports Number of radio and television spots aired. Percentage of participant group members who have heard or seen the spots Number of participant who can remember the messages and talk about them. Number of traditional media

		defecation; before preparing food; before eating; after having contact with faeces; after cleaning a child's bottom describe the benefits of hand-washing with soap/risks of not washing hands with soap at critical times understand the benefits of safely storing and handling drinking water safe storage and handling of drinking water so as to not contaminate it- keeping the stored drinking water covered and using a long handled ladle for drawing out water			performances. Number of people who have seen the traditional media performances Number of people who can remember the content. Number of water, sanitation systems installed and used Number of properly maintained handpumps Reduction in DD
TRAINING	Health workers Community workers Community leaders Households Handpump Maintenance volunteers	How to counsel How to install and maintain hand-pumps How to store and request spare parts How to install and maintain sanitary latrines.	Small group training sessions Refreshers	Training guidelines for all levels Role-plays for all Booklets and posters for handpump maintenance Reporting formats for community and health workers Storage and request forms for spare parts	Number of training sessions Number of household using ORT Number of counselling sessions Number of volunteers Number of water, sanitation systems installed and correctly used Reduction in DD

Communication Strategy and Action Plan

The strategy envisages reaching the goal of changing people's knowledge, attitudes and practices through different communication activities in a phased manner. Every phase is designed to achieve a specific set of communication objectives, each of which will act as a building block for the next. Some of the activities would continue throughout the life of the project.

The first two phases will focus on **Raising Awareness** - The focus will be on enhancing knowledge of audiences on understanding open defecation as a problem and provide correct knowledge on sanitation and hygiene practices. The emphasis will be on increasing the visibility of the issues and keeping it firmly in the spotlight.

The third and the fourth phase of the strategy will focus on **Social and Behaviour Change Communication** – it will be based on a high level of awareness and understanding among the broader public and an enabling environment to support change. The communication interventions will focus on the changing attitudes and practices of key stakeholders through a combination of communication approaches, especially IPC and multiple channels. The objective is to promote positive attitudes towards the four critical behaviours and eventually the adoption of the behaviours.

The final phase will focus on **Advocacy** - The purpose of the advocacy phase of the strategy is to mobilize government, media, civil society, implementing agencies and other stakeholders to strengthen sanitation programming and policies. Advocacy will create a platform to bring about effective implementation of the programmes of the government. The focus of the communication will be to inform through evidence-based advocacy to increase knowledge and influence key decision makers. The objective is to galvanize support to translate commitments into concrete actions.

Proposed Operational Plan / Implementation Schedule for IEC

SN	Strategy	Activity	Phases					Person / Unit Responsible
			I Initial	II Pre-Planning	III Planning	IV Implementation	V Post-Implementation	
1	ADVOCACY	Develop, Test, Distribute	State Fact Sheets	Media Kit	Field Visits Private Sector partnerships	Process Documentation Strengthening Institutional capacities Seminars and Conferences	Evidence-based advocacy package	State Programme Management Unit
		Monitor						
2	SOCIAL MOBILISATION	Develop, Test, Implement		Produce tool-kit for community leaders	Promote and implement participatory planning processes Mobile Media campaign Social media campaign	Activate social networks Strengthen Gram Sabha meetings Public Service Announcement Hand-washing Day		District Programme Monitoring Committee (DPMC)
		Monitor						
3	PROGRAMME COMMUNICATION	Develop, Test, Distribute		District Communication Plan and Annual Calendar	Mass Media Outdoor media Celebrity spokesperson	IPC – meetings, home-visits Entertainment Education Print and audio-visual communication		BRC / CRC and Support Organisations
		Monitor						

4	TRAINING	Develop, Test , Distribute, Train			Community leaders Jalsahiya PRI NGO staff	Community members		
		Monitor						

A system for monitoring and evaluation of the Sanitation and Hygiene Advocacy and Communication Strategy is critical so that modifications can be made as needed. Qualitative analysis will be implemented to guide advocacy efforts and assess progress towards enriching the discourse on sanitation issues. Emphasis must be placed on analysing budget allocations to make sure that money is spent appropriately and effectively and that implementers should be held accountable for their role and responsibilities.

Advocacy initiatives and campaigns will be developed jointly and have agreed indicators for measuring and monitoring progress. Key tools to monitor the implementation and impact of the advocacy and communication components will include:

- **Bi-annual reporting** – to inform on the strategy's progress and implementation.
- **Small-scale stakeholder surveys** (for example, policy makers, programme managers) – to understand whether the strategy is having the intended impact.
- **Media monitoring tools** – to identify the number of articles appearing in the media on hygiene and sanitation as a result of the campaign.
- **Impact assessment of mass media campaigns.**

Institutional analysis and inventory

Communication activities related to Drinking Water, Sanitation and Hygiene

- 'Nukkad Natak' (Street Plays) are being organised on themes related to water and sanitation. Scripts are downloaded from the TSC portal and enacted
- Some Posters and Wall-writings are being used – messages and posters have been taken from the TSC portal
- Rallies are organised with school children
- Swachchyata Rath – a vehicle with all water and sanitation related messages would be taken out on Swachchyata Diwas (mostly block-level)
- Weekly phone-in Helpline programme being telecasted on DoorDarshan
- Toll-free numbers are available for queries and complaints related to Hand pump repairing
- Gram Sabha meetings are mostly project-based
- Bulk SMS to Mukhia and Jalsahiya of VWSC
- Radio Spots have been developed, which will be aired soon
- TV spots are being developed

Bichna Gram Panchayat in Murhu Block in Khunti District has been declared ODF. On February 6, 2013 the Mukhiya of the GP attended the Live TV programme on DoorDarshan to share her experience. This was first

Some IEC Activities of Khunti District

Swachchyata Rath

Rally by School Children

Folk Dance

Wall-Writing

Village meeting

Nukkad Natak

Challenges

- Communication efforts are ad hoc and sporadic, the activities are neither inter-linked nor are they carried out in a systematic phased manner, hence message recall was low
- Centralized distribution mechanism for dissemination of communication material has limited reach and is found stacked at the state / district head quarters
- The penetration of communication channels and messages into the target audience is poor. No one knew about SMS alerts, TV programmes. Jalsahiya is being trained on Hand-Pump maintenance but she does not have the Toll-Free Number for Hand-pump repairing

12. PROGRAM MONITORING AND EVALUATION

Monitoring is a continuing process that aims primarily to provide the management and project stakeholders of an ongoing intervention with early indications of progress in achieving the desired objectives. It also serves to identify- gaps and thus help to rectify-any problems with an on-going programme. Monitoring of a program needs to be closely aligned with the evaluation of the project. Evaluation is an important monitoring tool and monitoring is an important input to evaluation. Thus monitoring and evaluation are supportive concepts and provides the basis of assessment of performance and outcome of a project based on an M& E plan. The aim of the M&E plan is to "measure the progress in activity implementation as well as extent to which the activity will result in changes in accordance with the objectives".

Objective

The project monitoring will aims in improving the following;

- Status Reporting
- Programme implementation
- Data sharing with partners
- Accountability
- Intermediate correction in programme implementation
- Services (water & sanitation)
- Use of toilet and sustainability of the structures

Type of Monitoring

Internal and external both the monitoring is proposed to ensure accountability.

Internal Monitoring

This could be undertaken at each of the levels like VWSC, DWSM and SWSM. At each level, participatory monitoring could be adopted under which representatives of VWSCs, NGOs and other stakeholders could be involved and they can submit report to the upper level i.e. DWSM which will further review the progress and then submit its report to SWMS.

External Monitoring

Consultants could be appointed by SPMU who will monitor the project implementation and then report back to the SPMU. Indicators on which monitoring could take place is presented below;

Indicators to be Evaluated in each term	**Evaluation Outputs**	**Research Techniques**	**Responsibility**
Ratio of posts created and staffs appointed as per norms of NBA and NRDWP At least 1 graduate engineer is available for 1,00,000/- population At least 5 DWSM consultants in each district	Policies made in this regard by Government of Jharkhand Government orders issued	Rapid assessment by selecting 20 household's, two schools and two Panchayats in 20 Panchayats of	External agency

At least 2 BRCs at block level Proportion of habitations established as self sustainable management unit Proportion of habitations prioritized based on Region and caste	Guidelines issued in this regard by Government of Jharkhand	1/3 of the selected districts of Jharkhand.	
Devolution of power to ZP and GPs for; Creation of infrastructure Maintenance of infrastructure Collection of user charges Proportion of VWSCs are actively participating Proportion of VWSCs having One third women members Proportion of VWSCs has involvement of Schools and Anganwadis in VWSC Separation of Governance and Operations functions	Circulation of these Policies, Government Orders and Guidelines to Districts and blocks		
Appointment of social mobilization agency The agency has women members Training of at least 5 VWSC members Training of all women members of VWSC	Social mobilization agency is appointed for social mobilization and training		
Jalsahiya considered for tariff collection, maintenance, etc			
Checking indicators at household level Proportion of household's having toilet % of rural households having water supply systems functional at the time of spot checks % of rural piped water supply systems privately managed % of rural population within 500 m of an improved water source Number and nature of protected water Sources Average frequency of water from domestic/ stand post connection Average amount paid for water supply per month Type of storage for water (specify) contamination observed in drinking water	Status Improvement		

proportion of Households using deflurode units/filters proportion of Households have water quality testing facility distance of nearest drinking water source that takes water from ground water (e.g. a hand pump or a well			
Access to sanitation services In schools and hygienic standards % of schools with latrines as per standards Proportion of schools having toilet Proportion of schools having functional toilet Proportion of schools having child friendly toilet Availability of running water in the toilet Proportion of schools having hand washing facility Proportion of schools having drinking water facility Proportion of schools having Information & Education material (visuals/painting) on water, sanitation & hygiene is displayed	Status Improvement		
Status of water & sanitation in Anganwadis Proportion of Anganwadi located in government building Proportion of Anganwadi having toilet Proportion of Anganwadi having functional toilet Proportion of anganwadi having hand washing facility Proportion of anganwadi having drinking water facility Proportion of anganwadis having Information & Education material (visuals/painting) on water, sanitation & hygiene is displayed			

Social Audit system should be adopted for assessing qualitative indicators through beneficiary perception recording. The scope of social audit is very wide and not limited to a particular scheme or activities or area. It will be taken up at ward level depending on the nature of work and programme. Similarly it can be organized around a single activity or collectively, taking more than one activities going on in that specific area. However it would reflect the opinions of a wide variety of people

affected by the programme. Social Audit would be organized as a regular process and not as a one-time event. It will be organized at specific intervals depending upon people's preparedness and willingness. It may take place after the completion of each activity, or on monthly or bi monthly intervals or even once/twice a year depending on the need.