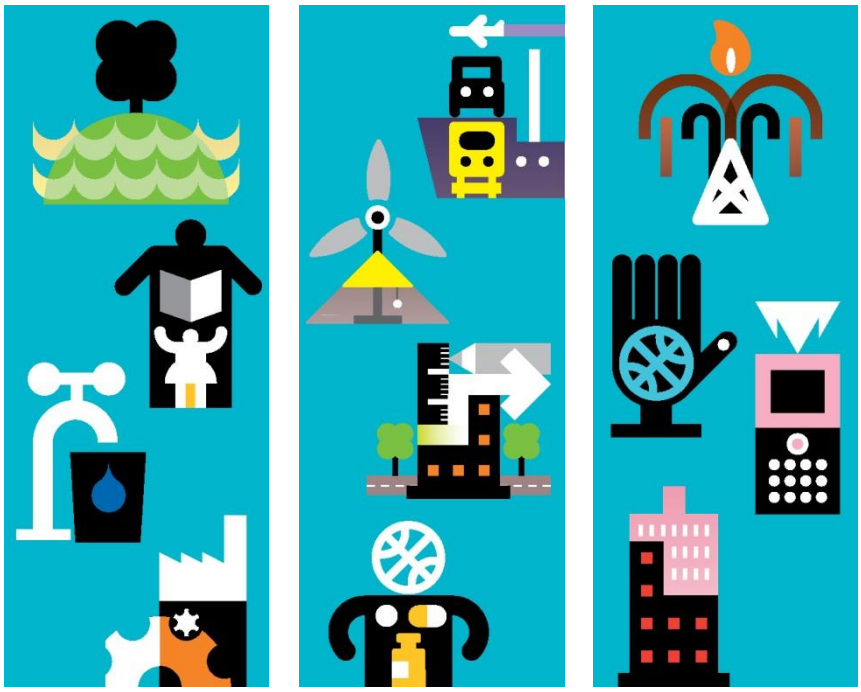

Revised Final Report - Social Assessment Component

Environment & Social Assessment for PRWSS-II Program

January 2015

State Programme Management Cell

Mott MacDonald

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Contents

Abbreviation

ADB	Asian Development Bank
DWSS	Department of Water Supply and Sanitation
DPMC	District Programme Management Cell
DOF	Department of Finance, Government of Punjab
DEA	Department of Economic Affairs, Government of India
FC	Fully Covered Villages
GAP	Gender Action Plan
GOI	Government of India
GOP	Government of Punjab
GP	Gram Panchayat
GPWSC	Gram Panchayat Water and Sanitation Committee
IEC	Information, Education and Communication
MV	Multi-village schemes
NABARD	National Bank for Agricultural and Rural Development
NRHM	National Rural Health Mission
NC	Not-covered Villages
O&M	Operations and Maintenance
PRWSS	Punjab Rural Water Supply and Sanitation Project
PWSSB	Punjab Water Supply & Sewerage Board
PC	Partially covered Villages
QA	Quality Assurance
SPMC	State Programme Management Cell
SSA	Sarva Shiksha Abhiyan
SV	Single Village Schemes
SNK	Shikayat Nivaran Kendra
WB	World Bank

Executive Summary

Overview

The state of Punjab forms a part of Indo-Gangetic alluvial plain and is composed of sediments of Siwalik Hills and Himalayas brought down by the rivers of Indus system. The state is spread over an area of about 50000 sq. km. (19th largest state in the country in terms of area). The state has 22 districts, 142 blocks, 11773 Panchayats and 15370 habitations. Providing safe drinking water to its people is the responsibility of the State Government. Till last decade, the coverage of habitations was the priority of the Government. However, currently safe drinking water and other related issues like sanitation and hygiene have become the priority. Of the total habitations, 12648 are in the status of 100% population coverage, 2703 habitations are in Partial Population Coverage and remaining 19 are quality effected *(Source:* DDWS (Jalmani's Achievement up to 27/10/2014).

Project Background (Rural Water Supply & Sanitation-RWSS)

The primary responsibility of providing drinking water facilities in the country rests with the state governments. The Government of India supplements the efforts of State Governments by providing Financial Assistance under the centrally sponsored National Rural Drinking Water Programme (NRDWP) and Nirmal Bharat Abhiyan (NBA).

The Government of Punjab (GoP) has prioritized RWSS as a key area of its development agenda. Over the past few years, significant capital allocations to the RWSS sector have been made which indicates the high priority accorded to the sector. The GoP intends to scale up and consolidate the gains of the first project and progressively raise the water supply and community sanitation service standards and eventually raise the coverage of high service standards (such as 24x7 water supply, 100% coverage by household water connections and phasing out of public taps, resolving water quality issues in affected villages and providing sewage and sullage management systems in rural areas of the state) by seeking the support from World Bank for the second Punjab Rural Water Supply Project (PRWSS). The PRWSS-II Programme will be implemented in the rural areas of all 22 districts of Punjab.

Government of Punjab with assistance of World Bank is implementing the "Punjab Rural Water and Sanitation Supply project, PRWSSP. In this context, GoP is expected to carry out necessary assessments which will enable them to design the project sustainably.

The Assignment

The objective of the study is to conduct a Social Assessment study, mainly to better understand and address social development issues, and ensure accomplishing the outcomes – inclusion, participation, transparency and accountability and management of land for the project.

Approach & Methodology

The study methodology includes both secondary & Primary Data. Secondary data is consists of earlier published report of the state of Punjab. Primary data was collected with the help of research tools liked using participatory approaches adopting participatory tools like Participatory Rural Appraisal, interactions with women group and SWOT analysis, etc. The study intended to identify stakeholders at all levels i.e. from the policy level to field operations to beneficiary level. In this line, first the stakeholders were identified

and then they were contacted during each stages of the assignment so that comprehensive coverage is ensured. The process of consultation will be continued till the end of study and our previous experience of the working for similar sectors and settings in the state has enabled us to plan and choose proper data collection methods for each stakeholders. The study also referred to the baseline survey/study (carried out in 2009) of the same project and other available secondary data such as census 2011 to set benchmark for the present study. The rationale was to take stock of progress made so far in terms of improving access to water supply and sanitation facilities for rural households in Punjab. The findings of secondary data have been discussed above.

Major Findings and Discussion:

Findings based on Primary Data

Beneficiary Assessment: A total of 2377 households were contacted during the study in different Gram Panchayats of the sampled districts of Amritsar, Hoshiarpur, Moga, Sri Muktsar Sahib, Sangrur and SAS Nagar. Following are the main findings of primary research conducted. Also the focus group discussions (FGDs) were carried out in six gram panchayats from six districts covered to carry out the study (one from each district).

Water Availability around 87 percent beneficiaries get water on daily basis and 65.4 percent gets two times in a day. Majority of the households (97.6 percent) get water supply for equal to or less than 5 hours. Subsequently, 79.2 percent beneficiaries found reliable timings of water supply. Around 91.4 percent beneficiaries responded positive about time suitability. PRA exercise results show that water accessibility to community places like *Gurudwaras* and schools are provided water supply free of cost which could be considered as a positive steps from the community point of view. All SC habitations were not found covered with functional piped water supply schemes this is creating an issue of inclusion. Further, flat rate billing has been reported in the visited habitations which are in any case subsidizing the rich who are using more water in comparison to poor.

Reliability of the water sources was observed by 76.5 percent beneficiaries. Timing of water supply fluctuates more than 55 percent in summers whereas 26.1 percent told it has on & off situation throughout the year. Adequacy of water was realised by 78.9 percent of beneficiaries.

Quality of Water from the existing water sources is found good by 58.9 percent beneficiaries. However, 24.7 percent beneficiaries told about unacceptable taste, 10 percent beneficiaries told about unacceptable smell and 17.5 percent beneficiaries told about drinking water are not clear.

Consumption of water is around 50 litters per person per day with a variation of requirements from 41 to 62 litters per person per day.

Availability of Toilets-Of the total households covered 83.8 percent informed of having toilets within their premises out of which 98.6 percent are functional toilets. Similar observations are made during PRA. Open defecation is commonly practices in case of absence of household toilet.

Participation: Community participation in decision making was limited as about 81% beneficiaries told that they have never participated in any meeting to decide selection of water supply scheme or source of water.

Further, participation of SC and women is found negligible. Moreover, awareness level of community on Water & Sanitation issues was found limited on, water quality, health & hygiene etc.

Transparency: Community was not found aware about the ongoing schemes indicating limited Transparency

Accountability: Accountability of GPWSCs was found an issue in slipped back habitations and this is also impacting the O&M of the ongoing schemes. Accountability of service provider was found an issue since community was not very happy with the level of services

Grievance redressal: Community is accessing grievance redressal services of a total 42519 complains are registered during 2009 to 2014 of which 42147 complains are attended and 99 percent complaints have been addressed. However, primary data shows that complaints were solved satisfactorily only in 19 percent cases and in 81 percent cases it remained unresolved.

Table E.1: Grievances Received by the Department & Addressed (year 1.12.09-15.12.14)

Sl.No.	Types of Issues	Number
1	Complaints actually registered during the period	42519
2	Complaints attended & conveyed back to the complainant	42147

Source: Based on Data received from SPMC for the year 1.12.09-15.12.14

Status of Women: Analysis of the secondary data showing declining sex ratio, less participation in economic activities, little representation in political decision-making etc. The interaction made during the study also confirms limited awareness as a major reason for their less participation. These are the attributes of poor status of women in Punjab. The study also concludes that disease prevalence is increasing households' burden needs to be taken urgently in the wake of women empowerment. Non-availability of toilets in 30% of household affects women and girl child directly due to cultural traits. Garbage collection & waste water disposal are also the grey areas affecting women.

Institutional Assessment: the lowest level is GPWSC, which is a standing committee of the Gram Panchayat, and expected to shoulder full responsibilities for all activities including planning, implementation, operation, maintenance and management related to RWSS at the village level. The district level arrangement consists of establishing District Water Sanitation Committee (DWSC) and a District Programme Management Cell (DPMC). It is envisaged DWSC to ensure all RWSS plans follow and are in conformity with the SMF, and to ensure proper planning and monitoring of SMF activities at the district level, and coordination between the district and SWSM. At the state level the State Water Sanitation Mission (SWSM) prepares the environment policy and sets the guidelines for the SMF implementation, monitoring and evaluation. This SWSM also liaises with other departments with regard to environment issues. The Program Director, SWSM will be responsible for ensuring the implementation of the SMF across the state. One State Level Environmental Expert in SWSM will ensure that environment management activities are in conformity with the SMF and that necessary guidance and budget is provided to implement these plans.

Policy Assessment : National Policies have enabled the State Punjab to formulate and implement inclusive policy for their state. Looking at devolution index of IIPA/MOPR, 2013 wherein Punjab scored 60 (of 100) compared to the national average of 51 (of 100) so far legal and institutional framework for devolution is concerned. However, terms of the index of actual devolution of functions, State could scores

24 against the national average of 34, because implementation of all the 29 functions as per Eleventh Schedule of the Constitution (Lok Sabha, 2013) was not undertaken. Similarly the Financial devolution index in Punjab fares rather poorly compared to other states – scoring only 17 against a national average of 29 and the indices for Capacity building and Accountability for Punjab were 39 and 47, compared to national averages of 50 and 43 respectively (IIPA/MOPR, 2013). Analysis of Punjab State policy concludes that the State is concerned on social aspects of service delivery and has gone ahead and has initiated work towards establishment of decentralized management of rural water supply and sanitation schemes as per 73rd Constitutional amendment. For which, GPs are empowered and GPWSCs are constituted as a subcommittee of GP. The GPWSCs have been entrusted with the central role for planning, implementation and O&M phases. In addition the GPWSCs are empowered to take decision on subsidised households including women headed households, disabled persons, landless people etc. As per the policy Punjab DWSS is extending special assistance (50% subsidies in capital cost and connection charges) to BPL and poor families.

Table E.2: Subsidy in Water Supply & Sewer System

Capital Cost share	General Population	SC & BPL
Normal area	Rs. 800	Rs. 400
Difficult area (hilly terrain, area with submerged land, boarder, etc)	Rs 400	Rs 200

Source: Data collection for from GPs and validated by SPMC

World Bank Safeguard Policies: In line with the requirements, the World Bank's safeguards Policies were referred to the operation policies of the World Bank. **Indigenous Peoples**: The state has no habitation with Scheduled Tribe population hence; the project will not directly or indirectly affect the dignity, human rights, livelihood systems, or culture of indigenous peoples. Hence, OP 4.10 Indigenous Peoples Plan is also not applicable as there is no tribal population in the state. However, vulnerable inclusion plan will be prepared for inclusion of women headed households, Below Poverty line population, disabled population, destitute, scheduled caste population etc.

Involuntary Resettlement: During discussions with GoP officials it was reported that as per PRWSS policy, the land for the infrastructure has to be provided by the GPWSCs (published Government Order in place). The same was confirmed during community level Focus Group Discussions (FGDs) which were conducted in each panchayat. It was reported by the villagers as well as the panchayat head that land is available under possession of panchayat and this could be transferred to project for construction of public infrastructure. The main component that requires land is sewerage scheme with treatment systems. These schemes require about 2.5 acres per scheme. These facilities would be located in encumbered GP lands. The scheme selection criteria will ensure that such sewerage schemes will be taken up only in such GPs where land is available. The total extent of land needed for this entire project is of the order of 787.5 acres (315 scheme x 2.5 acre per scheme). Other project components are of the nature of up gradation of service levels, increasing access through expanding house connections, improving inclusion by extension to cover uncovered areas and addressing water quality issues. As such there is no requirement of land anticipated for these components. In exceptional cases if land is needed for these components, these facilities would be located on unencumbered GP lands or through direct market purchase (willing buyer-willing seller).

Capacity Building Strategy :SWSM is apex and visionary body. It has to update its knowledge about innovations; sensitization on importance of Gender Equity, Social Inclusion strategies into action is

required for Officials of SWSM, SPMC and CCDU. Sustainability of the system requires strengthening accountability, supportive supervision mechanism, inter departmental liasoning for power supply during water supply timings, etc. Capacity building is also required for online monitoring for sustainability of system like MIS data based feedback mechanism, Uploading Field Monitoring Visit, Human Resources along with training status, Financial Management, grievance redressal effectiveness, maintenance guidelines and emergency support tracking system, etc. at state, district and block level. Capacity Building Strategy is proposed at four levels: **One State Level Workshops and one training program on management of scheme** on updating knowledge about innovations, sensitization on importance of Gender Equity and strategies into action for Officials of SWSM, SPMC and CCDU. **District Level Workshops** focusing on knowledge about project activities especially Multi Village schemes and its implementation; Knowledge on Community Led Total Sanitation approaches and participatory approaches including project cost to be recovered from community, sensitization on importance of Gender Equity and strategies into action for Officials of DWSC at implementation & operational level and Zila parisad. **Divisional level Workshops** Knowledge about project activities especially Multi Village schemes and its implementation; Knowledge on Community Led Total Sanitation approaches and participatory approaches including project cost to be recovered from community **for** Block Coordinators and GPWSC Members. **Village level training, meetings and orientation programmes like;** Prayer Meeting for School Children: About cleanliness on how to use water economically and hygiene education, Group meeting for AWW & Health worker: Assess purity of water/ Testing of water samples for GP Village Water & Sanitation Committee,Masons Training: Training in construction of toilets/ better construction techniques, Plumbers Training: Training of plumbers in laying pipes

Social Management Action Plan

The major risks identified were lack of community support & participation, irregularity in water supply, limited participation of women, shortage and non-availability of institutional structure at block level, lack of soft skillset among staffs, issues in equity & inclusion, Grievances Redressal and lack of empowerment of GPWSC on technical aspects etc. In the given context the project has identified few key social development issues:

Table E.3: Social Management Action Plan

Social issues	Evidences	Social Management Actions	Project Stage	Responsibility

Inclusion and Equity with focus on vulnerable groups	• All SC habitations are not covered with functional piped water supply schemes
	• Flat rate billing is an issue for poor, as they are subsidizing the rich
	• Households without water connection
	• Households without toilet
	• Households with pit toilet or
		• Motivation and Awareness to ensure inclusion
		• Meeting of GPVWSC
		• Socio-economic Survey (socio-cultural resource mapping and infrastructural survey) for preparing socio-economic baseline
		• Decision making in gram sabha on
		  • Inclusion of vulnerable through Vulnerable Peoples Development Plan as **detailed in chapter 9 below.**
		  • Implementing Gender mainstreaming Plan (Gender Action Plan is detailed below)
		• Habitation/ Village/ GP Level
			Pre-planning phase	SPMC/SWSM/DWSM/Division/PWSC

Social issues	Evidences	Social Management Actions	Project Stage	Responsibility
	septic tank toilets are disinterested to be linked with sewerage.	meetings for mobilization, using PRA and documentation of these activities • Mobilizing and sensitizing communities for contributions and collecting contributions		
		• Mobilizing and sensitizing communities for contributions and collecting contributions • Volumetric billing with telescopic tariff • Meeting of GPVWSC	Planning Phase	SPMC/SWSM/DWSM/Division/PWSC
		• Joint Inspection done. Trail runs completed ensure that all components are functioning properly and services cover all households.	Implementation	Division/PWSC
		• Discussions with community members on O&M plan and budget • Conduct GP/ VWSC meeting to fix user fees in a participative manner. • Appointed operator /assistant collects user fees • Ensure sufficient spares are available and village resource persons are trained in O&M	Operation & Maintenance	Division/PWSC
Participation	• Community participation in decision making was less • Participation of SC and women is found negligible • Awareness level of community on Water & Sanitation issues was found limited on, water quality, health & hygiene etc.	• Project kicks off- curtain raiser- with a district workshop • Appointment of social mobilisers for enhancing participation • Door-to-door/ Ward/ Village/ GP level campaigns on water and sanitation • Orientation of GP/Villages	Pre-planning phase	SPMC/SWSM/DWSM/Division
		• Enhancing sustainability of the scheme by increasing willingness to pay for the services	Planning phase	Division
		• Joint Inspection done. Trail runs completed ensure participation of all households.	Implementation phase	Division/GPWSC
		• Conduct an SME exercise after three months of commissioning with participation of community.	Operation & Maintenance	Division/GPWSC
Transparency	Community was not found aware about the ongoing schemes indicating limited Transparency	• Prioritization based on selection criteria done • GP/ villages are informed of the selection • Agreement arrived at with regard to technology options, location of facilities, etc.	Pre Planning	• SPMC/SWSM/ DWSM • Division/GPWSC/Contractor
		• Discussion about DPR and scheme facilities in GP VWSC meeting Gram Sabha approval and Consultation in case of Scheduled Areas and documentation of approval • Transparency wall/Display Boards are maintained	Planning	Division/GPWSC/Contractor

Social issues	Evidences	Social Management Actions	Project Stage	Responsibility
		• Public disclosure of information starting from pre planning phase to O&M • Disclosure of finalized plans, total contribution details, project timelines, completion details with phases		
		• Display of Implementation- status report, funding sources and amount • Post Implementation-details of O&M, disclosure of accounts etc	Implementation	Division/GPWSC/Contractor
		• Conduct a Social Audit exercise six months of commissioning with participation of community.	Operation & Maintenance	GPWSC/Division
Accountability	• Accountability of GPWSCs was found an issue in slipped back habitations and this is also impacting the O&M of the ongoing schemes • Accountability of service provider was found an issue since community was not happy with the level of services	• Department to share information in public domain and GoP website about project • Soft skill augmentation among the staffs to handle social component	Pre planning	SPMC/SWSM/DWSM/Division
		• Community Monitoring (Social Audit) • Implementation of Mobile Application • Redressal of objections/ complaints and considering suggestions regarding scheme interventions	Planning	Division/GPWSC
		• Redressal of objections/ complaints and considering suggestions regarding scheme interventions • Progress and Quality Monitoring by GP/ VWSC	Implementation	Division/ GPWSC
		• Joint Inspection done. Trail runs completed ensure that all components will be completed within the pre-decided time frame	Implementation	Division/ GPWSC
		• Ensure sufficient spares are available and village resource persons are trained in O&M	Operation & maintenance	Division/ GPWSC

Land Acquisition	• Land has to be provided by the panchayat free of cost out of panchayat land
	• Land was found available with the panchayats. Hence, availability of land may not be an issue
		• Panchayat to ensure that the provided land is in panchayats possession and has no encroachment
		• Gram Sabha to pass resolution on land transfer
		• Through land will not be acquired but Panchayats will require to ensure that;
		  • there is not involuntary land acquisition,
		  • land under possession of panchayat is used for the project purpose,
		  • the land has no encroachment, it is free from squatters it has no other claims of encumbrances
		  • selected land has be approved by the gram sabha (by the
			Pre-planning	Division/ GPWSC

Social issues	Evidences	Social Management Actions	Project Stage	Responsibility
		community) after ensuring that water is available there; • land transfers (if any) should be completed and land title should be in the name of GP/GP-WSC through registered sale deed or MOU; and • provision will be made for redressal of grievances (ROG). • No land transfer will be accepted from land owner whose holding is less than the minimum economical viable stipulated size i.e 2.5 acres. • Further, the Divisional Unit will arrange for an examination of all land transactions by an independent agency before according approval.		
		• Joint Inspection done. Trail runs completed ensure that no land all components are functioning properly and services cover all is taken violating the said criteria.	Planning Implementation	Division/ GPWSC

Gender Action Plan: The objective of sector program can only be achieved when both the gender works together and takes the activities forward for achieving sustainability. Considering this the study is proposing a gender inclusion plan which could be referred while implementing the project scheme cycle.

Table E.4: Gender Action Plan

Activity	Action & Measurable indicators	Responsibility	Time Frame	Source of Information
Outcome : Inclusion of Gender in implementing Sector Wide Approach Policy in Punjab				
Social and Gender indicators are integrated with Management Information System (MIS)	• Elaborate Project MIS is established including baseline indicators on social and gender indicators and gender disaggregated data collected, analysed and key findings disseminated to address implementation gaps. • Impact of the financing facility in enhancing health & nutrition benefit due to improved water & sanitation services (especially on women) evaluated	• SPMC	• Year 1 onwards	• Baseline Survey data • • MIS
Gender mainstreaming principles are integrated in the RWSS policy strategy framework	• ASHA, ANM, AWW and female teachers are mandatorily involved in the GPWSC • At least one third women participation in GPWSC (Baseline: availability of 1/3 women in GPWSC). • All the women GPWSC members are included for sensitization workshops and	• SPMC	• Year 1 on wards	• Project Management Information System • • Community mobilisation

Activity	Action & Measurable indicators	Responsibility	Time Frame	Source of Information
Outcome : Inclusion of Gender in implementing Sector Wide Approach Policy in Punjab				
	training • During O&M, women groups should be considered for tariff collection, maintenance, etc. • Gender balance shall govern recruitment of the staff from the private sector in Division and SPMC. • Due representation of women shall be ensured on all governance bodies at all the levels. • At least 50% of the social mobilisers are women			report in SM's activity report
Community mobilization is adopted as integral part of the project	• Gender balance participation in Project Awareness Promotion Campaigns • Women concerns in the selection of sub-projects • Women to play major role in technology choices and preparation of village water supply and sanitation plans • 50% of Social Mobilisers and Social Development Specialists are female • 33% of GPWSC board members to be female • At least 33% of sanitation and hygiene training participants to be female.	• SPMC/ Division	• Year 1 onwards	• Project Management Information System • • Community mobilisation report in SM's activity report
Develop Capacity of key stakeholders implementing the project including community partners on gender component in Water & Sanitation	• Training program on gender sensitivity for the officials of SPMC, SPMU, Division, GPWSC, GP etc. • At least 30% training participants are women • Target: 1 workshop/year. 100% of relevant staff members to participate in the workshops	• SPMC/ Division	• Year 1 onwards	• Project Management Information System • • Training Completion Report
Achieving sustainability in Water Supply & Sanitation Coverage	• Women members participate in the technology choice and technical assessment process • 33% of O&M training participants are women • Participation of women in financial management of the Water & Sanitation System O&M • Individual sanitation blocks (for poor) should consider norms of Safety, privacy and convenience • Messages for Water use and hygiene improvement trainings should be designed for both sexes • Women are trained in O&M of household latrines and also considered for mason training in rural sanitary marts	• SPMC/Division	• Year 1 onwards	• Project Management Information System •

Activity	Action & Measurable indicators	Responsibility	Time Frame	Source of Information
Outcome : Inclusion of Gender in implementing Sector Wide Approach Policy in Punjab				
GAP- Gender Action Plan, MIS- Management Information System, SM- Social Mobiliser, SPMC- State Programme Management Cell DPMC- District Programme Management Cell, BRC- Block Resource Coordinator				

Source : MM study

Vulnerability Action Plan Special Assistance to be taken up for connecting households with sewer

1. **Policy level decision**: This would need to be taken by the by the SWSM.

2. **Identification of households/ individuals** whose sanitation need is yet to be met. Rural poor could be identified through wealth ranking- such households could be identified which are residing up to 200 square feet built-up area house dimension regardless of whether they live in or outside the slums, Households headed by Disabled or Females or Old aged (65+ years) persons and households which has no fixed income could also be considered.

3. **Simplify Procedures** of taking connection and any proof of residence such as ration cards, ID cards, Aadhar Cards could be considered sufficient to provide a connection. Also availability of application forms in GPWSC's Office

4. **For achieving 100% sewer connections**, following benefits could be extended to the households having septic tank & HH having no sewer connection

   - 50% subsidy to the houses submitting application within15 days of implementation
   - 25% subsidy to the houses submitting application up to 30 days of implementation
   - 10% penalty to the houses submitting application after 31 days of implementation

5. **Panchayats/Wards with 100% connection within 60 days of implementation of project** could be considered as better panchayats could be awarded and GPWSCs could be rewarded for 100% connection.

Social Audit: Social Audit system which could be considered as citizen's feedback mechanism for strengthening supply side of accountability, may be adopted for assessing qualitative indicators through beneficiary participation. This could be done at least twice during the scheme cycle, may be while moving from planning to implementation; and second, at the time of completion and commissioning. For which a Social Audit Committee needs to be formed of members from the gram sabha. The social audit manual will be prepared which is tool for receiving citizen's feedback at various stages of the sub-project cycle.

Monitoring & Evaluation: internal monitoring could be undertaken at each of the levels like GPWSC, DWSC and SPMC level. The process could involve representatives of GPWSCs, SM. They can submit report to the upper level i.e. DWSC which will further review the progress and then submit its report to SPMC. External Monitoring & Evaluation could be undertaken by appointing Third Party consultants by SPMC. They would monitor the project implementation and then report back to the SPMC. A qualified and experienced external monitoring expert or NGO could be hired by the SPMC to verify the internal monitoring information and compliance issues. The process of the monitoring will help in ensuring overall transparency while implementation of the project. It would also lead to identification of persistent gaps and methods to overcome the same, simultaneously.

1 Introduction

1.1 Overview

The state of Punjab forms a part of Indo-Gangetic alluvial plain and is composed of sediments of Siwalik Hills and Himalayas brought down by the rivers of Indus system. The state is spread over an area of about 50000 sq. km. (19th largest state in the country in terms of area). The state has three distinct regions, viz, Upper Bari & Bist Doab Plain, Satluj & Ghagar Malwa Plain and South West Zone. Of these, Malwa is a major region of Punjab comprising 11 districts and falls between Sutlej and Yamuna rivers. Doab is the region of Indian Punjab surrounded by the rivers of Beas and Sutlej.

The state has 22 districts, 142 blocks, 11773 Panchayats and 15370 habitations. Providing safe drinking water to its people is the responsibility of the State Government. Till last decade, the coverage of habitations was the priority of the Government. However, currently safe drinking water and other related issues like sanitation and hygiene have become the priority. Of the total habitations, 12648 (82.3%) are in the status of 100% population coverage so far supply of drinking water is concern (population receiving minimum 40 litres/capita/ day (lpcd) water) further, 2703 (17.6%) habitations are in Partial Population Coverage (population receiving between 10 lpcd to 40 lpcd water) and remaining 19 (0.1%) are water quality affected habitations (Source: DDWS (Jalmani's Achievement up to 27/10/2014).

The state of Punjab comprises 1.5% Geographic area of the country. Punjab is one of the most fertile regions in India. The region is ideal for wheat-growing. Rice, sugar cane, fruits and vegetables are also grown. Indian Punjab is called the "Granary of India" or "India's bread-basket". It produces 10.26% of India's cotton, 19.5% of India's wheat, and 11% of India's rice. The Fazilka and Firozpur Districts are the largest producers of wheat and rice in the state. In worldwide terms, Indian Punjab produces 2% of the world's cotton, 2% of its wheat and 1% of its rice. The largest cultivated crop is wheat. Other important crops are rice, cotton, sugarcane, pearl millet, maize, barley and fruit. Rice and wheat are double cropped in Punjab with rice stalks being burned off over millions of acres prior to the planting of wheat. This widespread practice is polluting and wasteful. In Punjab the consumption of fertilizer per hectare is 223.46 kg as compared to 90 kg nationally.

The state has been awarded the National Productivity Award for agriculture extension services for ten years from 1991–92 to 1998–99 and from 2001 to 2003–04. In recent years a drop in productivity has been observed mainly due to falling fertility of the soil. This is believed to be due to excessive use of fertilizers and pesticides over the years. Another worry is the rapidly falling water table on which almost 90% of the agriculture depends; alarming drops have been witnessed in recent years. By some estimates, groundwater is falling by a meter or more per year.The excessive indiscriminate exploitation of ground water in the state has created a declining water table situation in the state. The problem is most critical in central Punjab. The average rate of decline over the last few years has been 55 cm per year. The worst affected districts are Moga, Sangrur, Nawanshahar, Ludhiana and Jalandhar. This has resulted in extra power consumption, affects the socio-economic conditions of the small farmers, destroy the ecological balance and adversely affect the sustainable agricultural production and economy of the state.

Sikhism is the predominant faith in Punjab, followed by more than 60% of the populace. At least one Sikh Gurdwara can be found in almost every village in the state, as well as in the towns and cities. Hinduism is

the second most practiced faith in Punjab forming 37% of the population. Large segment of Punjabis are categorized as Punjabi Hindus continue heterogeneous religious practices with spiritual kinship with Sikhism. While Muslims formed a significant portion of Punjab's population during Partition of India, most migrated to Pakistan during the years following independence. Today, they form 1.53% of the population are concentrated in Maler Kotla, the only city in Indian Punjab with a Muslim majority and urban centers of Ludhiana and Chandigarh. Other religions such as Christianity (1.21%) are also followed, as well as Buddhism (0.17%) and Jainism (0.16%).

According to the 2011 Indian Census, the population of Indian Punjab is 27,704,236 (males 14,634,819 & females 13,069,417). The literacy rate in Punjab is 75%, male literacy being 80.23% and female literacy 68.36%. The sex ratio of Punjab was 895 females per 1000 males (2011 census). On account of female feticide, Punjab has the second lowest sex ratio amongst all Indian states. Being an agricultural state, a large part of the population lives in the rural area. Roughly 66% of the people live in rural areas while the rest of the 34% are urban residents. Punjab has high dalit population in India with no scheduled tribe population.

1.1.1 Water Resources

1.1.1.1 Surface Water

Punjab the name derived from the Persian words, Punj (five) and ab (water) was a land of five rivers which formed part of Indus basin till 1947. After partition of the country, India’s rights of usage was restricted to only three Eastern rivers namely Satluj, Ravi and Beas, the three western rivers (Indus, Chenab and Jhelum) were earmarked for exclusive usage of Pakistan.

The canal systems of entire state comprises of following:

- The main canals from river Satluj are Anandpur Hydel Channel and Bhakhra Main Line (BML). BML further bifurcates into Narwana branch and Bhakhra main branch.
- At Ropar Head-works two main canals, Sirhind canal and Bist Doab canal originates.
- At Harike Head-works, Satluj feeds water to Rajasthan feeder canal and Ferozepur feeder canal.
- The Bikaner canal originates at Hussainiwala Head-works
- Main canal originates from Beas at Shah Nehar Barrage called Shah Nehar canal or Mukerian Hydel channel.
- The major irrigation canal originating from Ravi at Madhopur Head-works is Upper Bari Doab Canal.

The total stretch of canals and distributaries including minors in Punjab is approximately 14,500 km.

Table 1.1: Canal Systems in Punjab

Sr. No.	Name of the Canal	Length of the Canal in km.	Capacity of Canal in Cusecs	Off-taking Point	Cultivable Area in Ha.
1	Sirhind Canal		12,620	Ropar Headwork	13.59 Lacs
2	Bhakra Main Line (Extension of Nangal Hydel Channel)	164	12,500	Nangal Barrage D/s of Bhakra Dam	
3	Narwana Branch	98	4500	Off-takes from Bhakra	

Sr. No.	Name of the Canal	Length of the Canal in km.	Capacity of Canal in Cusecs	Off-taking Point	Cultivable Area in Ha.
				Main Line	
4	Bist Doab Canal	805	1452	Right bank of Sutlej river U/S of Ropar Headwork	1.99 Lacs
5	Upper Bari Doab Canal	3119	9000	Madhopur Head-works	5.73 Lacs
6	Rajasthan Feeder (Exclusively for Rajasthan)	149.53	18500	Harike Head-works	
7	Ferozepur Feeder	51.30	11192	Harike Head-works	
8	Sirhind Feeder	136.50	5264	Off-takes from Ferozepur feeder	3.6 Lacs
9	Eastern Canal	8.02	3197	Hussainiwala Head-works	2.16 Lacs
10	Makhu Canal	92.8	292	Harike Head-works	20,600
11	Shah Nehar Canal	24.23	875	D/s of Pong Dam	0.33

Source: Department of Irrigation, Punjab

The state also has 12 natural and 9 manmade wetlands covering an area of more than 14,000 ha. Three of these wetlands – Harike, Kanjli and Roopnagar are recognised as wetlands of international importance, and hence classified as Ramsar sites. The list of major natural and manmade wetlands is presented in Table 1.2.

Table 1.2: Natural Wetlands in Punjab

Name of Wetland	Nearest Town	District	Area in Ha.
Jastarwal Jheel	Jastibwal / Ajnala	Amritsar	135
Aliwal Kotli	Aliwal / Arnala	Amritsar	25
Bareta	Bareta	Mansa	50
Chawariam – Banghar – Chhamb	Kanuwan / Banghar	Gurdaspur	315
Keshopur – miani Zeel	Keshopur, Miani Jhamela	Gurdaspur	1000
Mand Bharthala	Bharthala	Hoshiarpur	150
Narayangarh Terkiana	Terkiana Darsuya	Hoshiarpur	200
Rababsar	Bharowana	Kapurthala	100
Lahail Kalan	Lahail	Sangrur	50
Gobindgarh Khokhar	Gobindgarh Khokhar	Sangrur	20
Sital Sagar	Mansar	Hoshiarpur	2000
Lobana	Nabha	Patiala	28

Source: ENVIS Centre, Punjab

1.1.1.2 Ground Water

The state is occupied by Indus alluvium of Quaternary age with tertiary sedimentaries bordering the eastern fringe. Water table elevation contours have a maximum value of 476.8 amsl rising in the North East along the Himalayas while the minimum value of 173.3 amsl is in the Punjab plains. General ground water flow direction follows the natural slope. There is not much change in the ground water flow direction which remains northeast - southwest, but the ground water gradient between contour level 190m and 180m in Muktsar /Ferozepur districts is gentle indicating slowing of ground water movement resulting in spreading of water logged areas to other districts.

- Deep water levels are observed in the central, eastern and southern parts of the state in parts of Ludhiana, Hoshiarpur, Sangrur, Bhatinda, Ropar and Fatehgarh districts.
- Deepest water levels (>20m) in about only 4% of wells are prevalent along the Kandi areas in the north eastern parts of the state.
- Very shallow water levels (<2m) in about 3% of wells have been observed in a patch south of Satluj river in Ferozepur and Faridkot district, which are mainly canal command areas and are water logged.
- Otherwise about 35 % of wells fall in 5-10m and 34% of wells fall in 10-20 m category.

The ground water resources have been assessed block wise. The annual replenishable Ground Water Resource of the State has been estimated as 22.53 bcm and Net Annual Ground Water Availability is 20.32 bcm. The Annual Ground Water Draft is 34.88 bcm and stage of Ground Water Development is 172%.

Out of 138 blocks in the state, 110 blocks have been categorized as 'Over-exploited, 4 as 'Critical', 2 as 'Semi-Critical, 22 as 'Safe' and there are no saline blocks in the state. The district wise stage of ground water development varies from 69% in Muktsar district to 283% in Sangrur District.

Table 1.3: Ground Water Availability in Punjab

Dynamic Ground Water Resources	
Annual Replenishable Ground water Resource	22.53 BCM
Net Annual Ground Water Availability	20.32 BCM
Annual Ground Water Draft	34.88 BCM
Stage of Ground Water Development	172%
Source: Central Ground Water Board	

1.1.2 Coverage of Drinking Water Supply

Most of the rural population depends upon ground water without any treatment to satisfy their requirement of drinking water. The water is available in shallow/ deep aquifers but water from shallow aquifers is not safe for drinking due to contamination by industrial effluents and pesticides/ insecticides from fields. In certain areas ground water contains high concentration of fluoride and chlorides. The growing population, increased requirement for irrigation purposes particularly rice crop and industrial use has lowered the ground water table and as such residents have to resort to deeper wells/ tube wells. The deeper tube wells are cost prohibitive for individuals.

In some areas, the main source of water for drinking is surface water which is made available from the existing network of irrigation canals. Although canal water supply has the potential but supply is mainly utilized for irrigation of crops. The water supply gets discontinued due to canal closures for maintenance or other purposes. The water also needs proper treatment for suspended and dissolved solids carried through their catchments. The water supply to such areas needs to be augmented by other means and supply requires proper treatment. The details of coverage are mentioned in the table below:

Table 1.4: Punjab Drinking Water Supply Coverage (rural)

Total Habitations in Punjab (in number)	**No of Habitations with Partial Population Coverage**		**Total Number of Quality Affected Habitations**		**No. Of Habitations with 100% Population Coverage**
15370	2703		19		12661
Total Quality Affected (data as on 01/04/2014)	**Fluoride**	**Arsenic**	**Iron**	**Salinity**	**Nitrate**
19	1	1	16	1	0
Scheme Details as on 10/12/2014					
Particulars	**State Number**	**State Percentage**	**All- India (Number)**		**All- India (Percentage)**
Habitations covered by PWSS	13463	87.59	668889		39.42
Habitations covered by Hand pumps / Bore wells	1478	9.62	896256		52.82
Habitations covered by Others	393	2.56	50828		3.00
Habitations where scheme detail Not entered in IMIS	36	0.23	80691		4.76
Total	**15370**	**100**	**1696664**		**100**

Source: DDWS (Jalmani's Achievement up to 10/12/2014)

1.1.3 Sanitation Coverage in State

The table below provides details regarding availability of the toilet in rural households in the Punjab based on the findings of baseline survey 2012 under Nirmal Bharat Abhiyaan (NBA). Out of 3192091 number of the households, 2399641 (75.2 percent) reported of having toilet facility within their premises while rest i.e. 24.8 percent informed about not having toilet facility. Further, dividing all the households into BPL and APL category, it was observed access to toilet for APL households is better as compared to BPL households. Percentage of APL families having toilet facility is 77.5 percent while corresponding figure for BPL families stands at 64.2 percent. Hence it could be inferred that focused approach is required to improve accessibility of toilet facilities for marginalised as well as overall population in the state.

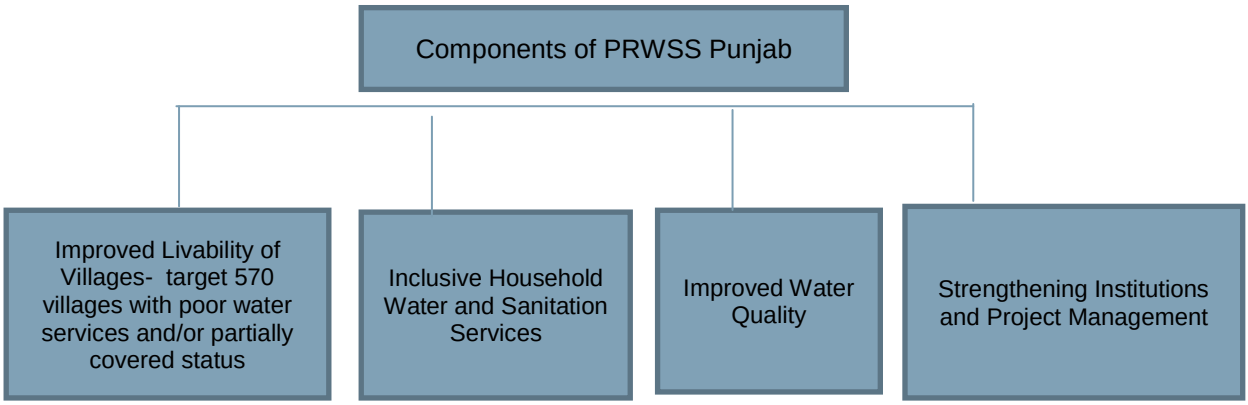
Table 1.5: Punjab –District wise Baseline Survey of Nirmal Bharat Abhiyaan – 2012 (%)

SL. No.	District Name	Total IHHL(APL+BPL)	Total IHHL with Toilets (APL+BPL)		Total IHHL without Toilets (APL+BPL)		BPL Households					APL Households				
							Total Households	With Toilet		Without Toilet		Total Households	With Toilet		Without Toilet	
1	2		N	%	N	%		N	%	7	%		N	%	N	%
1	Amritsar	172517	87815	50.9	84702	49.1	60090	20230	33.7	39860	66.3	112427	67585	60.1	44842	39.9
2	Barnala	67617	43816	64.8	23801	35.2	11995	6860	57.2	5135	42.8	55622	36956	66.4	18666	33.6
3	Bathinda	159257	137049	86.1	22208	13.9	9910	8173	82.5	1737	17.5	149347	128876	86.3	20471	13.7
4	Faridkot	71614	59940	83.7	11674	16.3	6319	4759	75.3	1560	24.7	65295	55181	84.5	10114	15.5
5	Fatehgarh Sahib	57900	44314	76.5	13586	23.5	7137	5557	77.9	1580	22.1	50763	38757	76.3	12006	23.7
6	Ferozepur	240891	155811	64.7	85080	35.3	44499	24077	54.1	20422	45.9	196392	131734	67.1	64658	32.9
7	Gurdaspur	310648	219774	70.7	90874	29.3	111866	77448	69.2	34418	30.8	198782	142326	71.6	56456	28.4
8	Hoshiarpur	260771	165994	63.7	94777	36.3	18536	9882	53.3	8654	46.7	242235	156112	64.4	86123	35.6
9	Jalandhar	211344	179908	85.1	31436	14.9	10227	5321	52.0	4906	48.0	201117	174587	86.8	26530	13.2
10	Kapurthala	104253	68122	65.3	36131	34.7	24753	11177	45.2	13576	54.8	79500	56945	71.6	22555	28.4
11	Ludhiana	267046	240939	90.2	26107	9.8	55253	47500	86.0	7753	14.0	211793	193439	91.3	18354	8.7
12	Mansa	105720	83762	79.2	21958	20.8	28362	24205	85.3	4157	14.7	77358	59557	77.0	17801	23.0
13	Moga	145135	138068	95.1	7067	4.9	5614	5115	91.1	499	8.9	139521	132953	95.3	6568	4.7
14	Muktsar	156600	110216	70.4	46384	29.6	41248	27261	66.1	13987	33.9	115352	82955	71.9	32397	28.1
15	Nawanshahr	102352	69323	67.7	33029	32.3	5883	1951	33.2	3932	66.8	96469	67372	69.8	29097	30.2
16	Patiala	220188	192703	87.5	27485	12.5	18537	15606	84.2	2931	15.8	201651	177097	87.8	24554	12.2
17	Rupnagar	90481	65964	72.9	24517	27.1	1342	752	56.0	590	44.0	89139	65212	73.2	23927	26.8
18	S.A.S Nagar	86518	67634	78.2	18884	21.8	30301	23694	78.2	6607	21.8	56217	43940	78.2	12277	21.8
19	Sangrur	206362	170715	82.7	35647	17.3	39579	29111	73.6	10468	26.4	166783	141604	84.9	25179	15.1
20	Tarn Taran	154877	97774	63.1	57103	36.9	36307	15948	43.9	20359	56.1	118570	81826	69.0	36744	31.0
Total		**3192091**	**2399641**	**75.2**	**792450**	**24.8**	**567758**	**364627**	**64.2**	**203131**	**35.8**	**2624333**	**2035014**	**77.5**	**589319**	**22.5**
Source: NBA 2012 survey abstract data received from SE, WSS Circle, Chandigarh																

1.2 Project Background (Rural Water Supply & Sanitation-RWSS)

The primary responsibility of providing drinking water facilities in the country rests with the state governments. The Government of India supplements the efforts of State Governments by providing Financial Assistance under the centrally sponsored National Rural Drinking Water Programme (NRDWP) and Nirmal Bharat Abhiyan (NBA).

The Government of Punjab (GoP) has prioritized RWSS as a key area of its development agenda. Over the past few years, significant capital allocations (US $ 154 million) to the RWSS sector have been made which indicates the high priority accorded to the sector. The GoP intends to scale up and consolidate the gains of the first project and progressively raise the water supply and community sanitation service standards and eventually raise the coverage of high service standards (such as 24x7 water supply, 100% coverage by household water connections and phasing out of public taps, resolving water quality issues and providing sewage and sullage management systems in rural areas of the state) by seeking the support from World Bank for the second Punjab Rural Water Supply Project (PRWSS). The PRWSS-II Programme will be implemented in the rural areas of all 22 districts of Punjab.



Government of Punjab with assistance of World Bank is preparing for implementation of the “Punjab Rural Water and Sanitation Supply project, PRWSSP. In this context, GoP is expected to carry out necessary assessments which will enable them to design the project sustainably. Components of Punjab rural water supply and sanitation project are summarized in chart below:

To contribute on sustainability of the project, a “Social Assessment (SA)”study is to be prepared according to the World Bank’s Safeguard policies. For this purpose, State Programme Management Cell has appointed Mott MacDonald Private Limited for preparation of “Social Assessment Report” for the state.

1.3 The Assignment

The objective of the study is to conduct a Social Assessment study, mainly to better understand and address social development issues, and ensure accomplishing the outcomes – inclusion, participation, transparency and accountability and management of land.

1.3.1 Need for Social Assessment

Government of Punjab intends to scale up and consolidate the gains of the first project (World Bank assisted Punjab Rural Water Supply & Sanitation Project), adopting demand responsive and decentralized service delivery approach, and progressively raise the water supply and community sanitation service standards progressively i.e. 24x7 water supply, 100 percent coverage by household water connections and phasing out of public taps, resolving water quality issues in affected villages and providing sewage and sullage management system in rural areas of Punjab, by seeking World Bank assistance for the second PRWSS project. In this connection social assessment of the first PRWSS project has been mandated.

1.3.2 Assignment Objectives

The objective of the study is to conduct a Social Assessment, mainly to better understand and address social development issues, and ensure accomplishing the outcomes – inclusion, participation, transparency, accountability and management of land for the project.

The scope of services as per the ToR is divided into three parts:

- Part A: Social Assessment
- Part B: Generation of Baseline Data
- Part C: Capacity Building

1.3.3 Approach & Methodology

The study was conducted using participatory approaches adopting participatory tools like Participatory Rural Appraisal, interactions with women group and SWOT analysis, etc. The study intended to identify stakeholders at all levels i.e. from the policy level to field operations to beneficiary level. In this line, first the stakeholders were identified and then they were contacted during each stages of the assignment so that comprehensive coverage is ensured (detailed study questionnaires and methodology attached as appendix A .

1.3.4 Study Coverage

As per discussions with the client, it was decided to consider one village from the geographically spread six representative districts falling into three different Socio-Cultural Zones.

Sl. No	District	**Socio-Cultural Zones**	**Block**	**Village**
1	Sri Sri Muktsar Sahib Sahib	South West Zone	Malout	Bhangchari
2	Moga	Satluj & Ghagar Malwa Plain	Dharamkot	Sangla

Sl. No	District	**Socio-Cultural Zones**	**Block**	**Village**
3	Sangrur	Satluj & Ghagar Malwa Plain	Malerkotla	Jhaner
4	SAS Nagar	Satluj & Ghagar Malwa Plain	Majri	Bhajauli
5	Hoshiyarpur	Upper Bari & Bist Doab Plain	Hoshiyarpur-2	Badial
6	Amritsar	Upper Bari & Bist Doab Plain	Ajnale	Harror Khurd

1.3.5 Data Entry and Analysis

All the filled in questionnaires from the field visit were used for qualitative analysis (after scrutinising of the entered data by our office editors). The tabulation plans were developed and data processing was carried out. Our in-house expert teams handled the data processing and data analysis. Based on the analysis of both qualitative and quantitative inputs, reports were prepared. The quantitative data was analysed using SPSS. Qualitative data was content analysed by the expert team.

1.3.6 Structure of the Report

This Draft Final Report provides detailed analysis of the quantitative and qualitative data collected, Key findings of the social assessment, capacity building strategy, and a social management framework plan for the project.

Chapter-wise contents of the study will be as under:

- Chapter 1 Introduction
- Chapter 2 Socio Economic Profile of Punjab.
- Chapter 3 RWSS -Policy, Regulatory Framework
- Chapter 4 Findings on Status of Services & Stakeholder Analysis
- Chapter 5 Institutional Analysis
- Chapter 6 Grievance Redressal
- Chapter 7 Capacity Building Strategy
- Chapter 8 Monitoring & Evaluation
- Chapter 9 Social Management action plan Training Need Assessment
- Chapter 10 Scheme Cycle

2 Socio-Economic Profile of Punjab

Punjab is the only state in India with a majority of Sikh Population. As per details from Census 2011, Punjab has a population of 2.77 Crores, an increase from figure of 2.43 Crores in 2001 census. Total population of Punjab as per 2011 census is 2,77,04,236 of which male and female are 1,46,34,819 and 1,30,69,417 respectively.

As per Census 2011, in rural areas of Punjab, female sex ratio per 1000 males was 906 while same for the child (0-6 age) was 843 per 1000 boys. In Punjab, 18,65,019 children (0-6 age) live in rural areas, which forms 10.77% of total rural population. In rural areas of Punjab, literacy rate for male and female stands at 77.92% and 66.47% respectively. Total literates in rural areas were 1,11,95,395 (table 2.1 Appendix B) .

Table 2.1: District-wise Rural Population in Punjab (Census 2011)

Sr. No.	District	Total No. of Households	Persons	Males	Females
1	Gurdaspur	3,11,353	16,43,882	8,58,429	7,85,453
2	Kapurthala	1,07,370	5,32,296	2,75,420	2,56,876
3	Jalandhar	2,13,157	10,21,388	5,23,390	4,97,998
4	Hoshiarpur	2,63,705	12,47,969	6,32,251	6,15,718
5	SBS Nagar	1,02,491	4,88,857	2,49,182	2,39,675
6	Fatehgarh Sahib	78,498	4,14,649	2,19,831	1,94,818
7	Ludhiana	2,79,426	14,25,201	7,52,685	6,72,516
8	Moga	1,46,750	7,68,499	4,05,793	3,62,706
9	Firozpur	2,76,024	14,74,592	7,75,601	6,98,991
10	Sri Muktsar Sahib	1,23,732	6,50,004	3,42,495	3,07,509
11	Faridkot	76,526	4,00,494	2,11,036	1,89,458
12	Bathinda	1,70,817	8,88,943	4,75,070	4,13,873
13	Mansa	1,16,682	6,05,356	3,22,466	2,82,890
14	Patiala	2,13,190	11,30,279	5,98,239	5,32,040
15	Amritsar	2,13,921	11,54,831	6,08,303	5,46,528
16	Tarn Taran	1,75,932	9,78,611	5,15,291	4,63,320
17	Rupnagar	97,419	5,05,529	2,63,818	2,41,711
18	SAS Nagar	84,663	4,42,112	2,36,684	2,05,428
19	Sangrur	2,16,801	11,37,633	6,04,462	5,33,171
20	Barnala	76,521	4,05,675	2,16,020	1,89,655
21	Pathankot				

Source: Total No. of Households from Censusindia.gov.in, Persons – Males – Females from Director of Census Operations, Punjab 2011

Further, females constitute 47.23% of total population of the state. Sex ratio is 895 in 2011 in Punjab as compared to national average 943 in 2011. Sex ratio in 0-6 year's age-group is 846 in 2011 as compared to national ratio 914 in 2011. As per Census 2011, Punjab has the highest percentage of scheduled caste population (31.94%) in the country. Declining sex ratio is an issue of concern in Punjab. As can be seen that present sex ratio in Punjab is 893 which is far less from National ration of 940. In almost all the districts of Punjab declining trend of female sex ratio is being seen from last two decades. It was observed

during the study that despite development in various aspects, Punjab lacks progress of women. Less participation in economic activities, little representation in political decision-making etc. are few attributes observed.

Table 2.2: Gender & Education Profile of Punjab

Particulars	Rural		Urban		Total	
	Number	Rate	Number	Rate	Number	Rate
Population	17344192		10399146		27743338	-
Male Population	9093476	52.4	5545989	53.3	14639465	52.8
Female Population	8250716	47.6	4853157	46.7	13103873	47.2
Population size, 0 - 6 yrs	1945502	11.2	1130717	10.9	3076219	11.1
Population size, 0 - 6 yrs (Males)	1055297	54.2	610697	54.0	1665994	54.2
Population size, 0 - 6 yrs (Females)	890205	45.8	520020	46.0	1410225	45.8
Population (7yrs +)	15398690	88.8	9268429	89.1	24667119	88.9
Male Population (7yrs +)	8038179	52.2	4935292	53.2	12973471	52.6
Female Population (7yrs +)	7360511	47.8	4333137	46.8	11693648	47.4
Sex Ratio	-	907	-	875	-	895
Literacy (7yrs +)	10997657	71.42	7709480	83.18	18707137	75.84
Literacy Male	6158807	76.62	4277249	86.67	10436056	80.44
Literacy Female (7yrs +)	4838850	65.74	3432231	79.21	8271081	70.73

Source: Census 2011

Health indices shows life expectancy among females in Punjab is higher (72.8) than their male counterpart (69.6). Total Infant Mortality Rate is 30.0 in 2011 whereas in case of female infants, it is 33 in 2011. The total fertility rate (15-49 years females) is 1.99 as per NFHS-III 2005-06. Maternal Mortality Ratio (MMR) has decreased to 172 during 2007-09. Institutional deliveries has increased 73.4% in 2011.As per NFHS-III 2005-06, 38.0% of women suffered from Anaemia and only 1.4% of women suffered from severe anaemia in Punjab. Mean age at marriage of females is 22.4 during 2011 in Punjab.

Economic Status shows that women constitute only 11.99% of main workers and 6.44% of marginal workers to total workers in the state as per census 2011 which is lesser than the National average. The workforce participation rate of females in Punjab is 13.90% is poorer as compared to National average.

Educational Status shows 70.7% of females in Punjab were literate compared to 80.4% of men in 2011. The statistics of School Education, Ministry of Human Resources Development, Govt. of India show that in Punjab Girls Enrolment ratio in primary classes increased to 108.3 (age group 6-11 years), and 91.7 (age group 14-18 years) in the year 2010-11. The percentage of female teachers to total teachers in schools was 70.78% (primary school), 70.29 (middle school) and 55.82% (Secondary and Higher secondary schools) in 2011. The dropout rate for girls is lower than that of boys at Primary and upper primary level.

Employment Status shows there are 30.30% female job seekers to total number of job seekers registered in employment exchanges. Female constitutes only one-fourth of the total employees working in the

government/semi-government sector. The percentage of female employees to total employees in group A, B, C and D is 23.47%, 32.28%, 27.49% and 16.05% respectively.

Crime against women data shows that suicide rate among females was lower (0.88%) compared to their male counterparts where it was 2.79%% in 2012. The cases registered under crime against women are Dowry Murder (42.19%) followed by Kidnapping (17.93%) and Rape (13.67%) in 2011.

Women Empowerment indices show that there was no female judge in Punjab and Haryana High Court from 1961 to 1981. In 2013, out of total 41 judges in Punjab and Haryana. High Court, only 4 are female. In the Assembly Elections 2012, 14 (11.97%) female members were elected. out of total 117 members of Legislative assembly. In Lok sabha elections 2009, Percentage of female votes polled to total female electorates was 69.44%. As per the Panchayats election in Punjab during 2011-12, Out of total 12386 panchayats, 3698 (29.86%) panchayats have ladies sarpanch. Similarly out of 65121 panchayat members, 28.07% of members are females.(**Source:** *Gender Statistics of Punjab 2012, Economic & Statistical Organisation, Punjab)*

Overall, declining sex ratio, less participation in economic activities, little representation in political decision-making etc. are the attributes of poor status of women in Punjab.

2.1 Beneficiary Assessment (analysis of Quantitative Data)

Socio-economic profile of the respondents is based on the sample survey for the social assessment undertaken by Mott MacDonald, the collected data by Nielson has been analysed and is presented below. The study has been undertaken to understand and address social development issues and accomplish the outcomes of inclusion, cohesion, equity, security, and accountability. This would also enable assessing the 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 enable accomplish the principles underlying the approach.

2.1.1 Age of the respondents

A total of 2377 households were contacted during the study in different Gram Panchayats of the sampled districts of Amritsar, Hoshiarpur, Moga, Sri Muktsar Sahib, Sangrur and SAS Nagar. Majority of the respondents were of middle age group i.e. 26 – 40 (45.1 percent of the respondents) and 41 – 60 (38.6 percent of the respondents). Percentage of respondents falling under the age group of 15-25 stands at 11.3. The table appended in appendix B presents age group wise distribution of the respondents:

2.1.2 Gender of respondents

The table appended in appendix B presents the Gender-wise distribution of the respondents covered under the study. It was found that women are active members in the community because 80.7 percent of the respondents were female candidates whereas the remaining 19.3 percent were male.

So far as gender of the heads of the house-holds is concerned, it was found that majority were male (91.1 percent) whereas only 8.9 percent were women headed households.

2.1.3 Literacy level

Literacy level of the sampled Gram Panchayat was found to be low. The following table appended in appendix B presents the educational status of head of the households contacted. It was found that majority of the respondents were illiterate (41.1 percent), around 11.4 percent of the respondents were educated till primary level while some respondents were educated up to secondary (around 16.1 percent) whereas only few respondents were educated up to higher secondary level (6.1 percent). Only 1.9 percent of the respondents have graduated whereas only 0.3 percent of the respondents completed post-graduation or professional studies.

2.1.4 Religious background

During the study it was found that majority of the respondents are Sikhs (80.5 percent) whereas the remaining belonged to the Hindu, Muslim & other communities (16 percent, 1.4 percent & 1.4 percent respectively) table appended in appendix B.

2.1.5 Social groups/Castes of the respondents

The table appended in appendix B provides detail regarding social groups of the respondents contacted during the study. It was found that majority of the respondents belong to schedule caste category (46.7 percent) followed by respondents belonging to the general category (39.8 percent) and other backward castes (OBC) Category (13 .6 percent).

2.1.6 Government Cards

The survey findings indicate that majority of the contacted households were having Blue Card i.e. 42.5 percent followed by respondents having APL card i.e. 34.3 percent and 11.8 percent households having BPL card. Only 4.2 percent respondents were having AAY cards whereas 7.2 percent respondents were not having any ration cards, table appended in appendix B.

2.1.7 Occupation of the chief wage earner

So far as occupation of the chief wage earner of contacted households is concerned, 35.4 percent individuals were found involved in some kind of labour work whereas 18 percent were agricultural labourers. Percentage of respondents self-employed in agriculture work was about 23.8 percent. Details about other occupations may be seen in the table appended in appendix B:

2.1.8 Ownership of the agriculture land

Table appended in appendix B below provides detail regarding status of land ownership of the contacted households. 62.1 percent reported of being landless followed by 21.7 percent households having more than 2.5 acres land under their possession and 16.3 percent of the households having land within the range of 0.1 – 2.5 acres.

2.1.9 Numbers of members in household

Table appended in appendix B presents the range of number of members in the household. Around 66.3 percent of the contacted households were having between 1 to 5 members, followed by about 31.2 percent households having 6 to 10 members. Members between the ranges of 11 to 15 in a household were found in 2.1 percent of contacted households, only 0.3 percent respondents were having more than 16 members in household.

2.1.10 House built under IAY or other Govt. schemes

Most of the respondents were not having houses built under any Government schemes (about 97.4 percent) whereas only 0.3 percent responded that they got their houses built under Indira Awas Yojana. About 2.3 percent of the respondents stated that they got their houses built under other Government schemes (table appended in appendix B).

2.1.11 Type of dwelling

Table appended in appendix B presents the type of dwelling of the respondents. Most of the respondents either having Pucca or semi-pucca houses (52.1 percent and 43 percent respectively) whereas only about 4.9 percent of the contacted respondents were found to be living in the Kutcha houses.

2.1.12 Kind of walls in House

Table appended in appendix B presents the type of walls in the houses of the contacted respondents. Most of the respondents have their walls built of either Stone with mud/cement or Concrete/brick (51.5 percent and 44.6 percent respectively) whereas 2.4 percent respondents had their walls built of Bamboo/straw with mud. Around 1 percent had their walls built of wood, plam/bamboo/thatch or other material.

2.1.13 Habitation

The table appended in appendix B depicts that 65.8 percent of households covered under the study are part of habitations poor household while 34.2 percent are not part of it.

Factsheet-Comparison Matrix attached as appendix B, proceedings of Workshop is attached as appendix C and Village level case studies are attached as appendix D

2.2 Conclusions and Discussion based on Beneficiary Assessment

A total of 2377 households were contacted from different Gram Panchayats of Amritsar, Hoshiarpur, Monga, Sri Muktsar Sahib, Sangrur and SAS Nagar. Majority 83.7 percent respondents fall in the age of 26 to 60 years. Females comprise 80.7 percent of total respondents thus, 1918 women were contacted during the survey. Majority (91.1 percent) of the houses are male headed. Illiterate respondents contributed 41.1 percent whereas till primary educated are 11.4 percent and above primary to secondary educated are 32.4 percent. Respondents' religious belonging is Sikh (80.5 percent) followed by Hindu (16 .7 percent) and Muslim (1.4 percent). Of the 2377 households, 46.7 belonged to Scheduled Caste followed by 39.8 percent general, and 13.6 percent to Other Backward Castes. The main bread earner of most of the households (53.4%) is working as labourers followed by another 23.8 percent who works as farmers. However, 62 percent of respondent households do not own any agriculture land. Family size of 66.3 percent respondents falls between 1 to 5 members. No government assistance given in house construction to majority (97.4 percent) of respondents. Only 5% respondents have *Kutcha* houses rest of the respondents have either *pucca* or semi *pucca* houses. About 66 percent respondents belong to poor households.

3 Legal Framework: Policy, Regulatory Framework

3.1 Rural Water Supply & Sanitation (RWSS) Policies

3.1.1 RWSS at National Context

The primary responsibility of providing drinking water facilities in the country rests with the State Governments. The Government of India supplements the efforts of State Governments by providing financial assistance under the centrally sponsored Accelerated Rural Water Supply Programme (ARWSP), now renamed as National Rural Water Drinking Programme (NRWDP). This programme has been under implementation since 1972-73. In 1986, the National Drinking Water Mission (later named as the Rajiv Gandhi National Drinking Water Mission in 1991) was launched and further in 1999, the Department of Drinking Water Supply was created.

With the 73rd and 74th amendments, drinking water and sanitation were included in the list of subjects to be devolved to Panchayats. In 1999, the Government had considered and approved a proposal to bring about a package of reforms in the rural water supply sector to address major areas of concern, namely, coverage of habitations, quality problem in drinking water and sustainability of sources and systems.

The focus of Government in the Ninth and Tenth Five Year Plan under the Rural Water Supply Programme was on coverage of habitations. Coverage in this context means providing water at a specific norm of 40 litres per day per capita with a source available within a walking distance of 1.6km in the plains or elevation of 100 metres in hilly areas.

The Eleventh Five Year Plan (2007-2012) targets to provide clean drinking water to all by 2009 and ensure that there are no slip-backs by the end of the Eleventh Plan. The Ministry has prepared a Strategic Plan for the rural drinking water sector for the period 2011 to 2022. The salient aspects are:

- To ensure that every rural person has enough safe water for drinking, cooking and other domestic needs as well as livestock throughout the year including that during natural disasters
- By 2022, every rural person in the country will have access to 70 lpcd within their household premises or at a horizontal or vertical distance of not more than 50 metres from their household without barriers of social and financial discrimination

3.1.1.1 Guidelines on National Rural Drinking Water Programme (NRDWP)

"Ensure provision of safe and adequate drinking water supply to all uncovered habitations in the rural areas of the country."

The Ministry of Drinking Water & Sanitation (MDWS) administers the National Rural Drinking Water Programme (NRDWP), through which the Central Government provides financial and technical support to supplement the efforts of states to provide adequate potable drinking water to the rural population. Rural drinking water supply is a state subject and has been included in the Eleventh Schedule of the Constitution among the subjects that may be entrusted to Panchayats by the states.

The NRDWP has the following objectives:

- To ensure provision of safe and adequate drinking water supply to all uncovered, partially covered and quality affected habitations in the rural areas of the country.
- To ensure that all schools and anganwadis have access to safe drinking water.

"Ensuring household level drinking water security through water budgeting and preparation of village water security plans."

- To enable GPs/VWSCs to plan, manage, operate and maintain local water sources and water supply, to provide enabling support and environment for PRIs and local communities for this purpose.
- Enable rural communities to monitor and keep surveillance on their drinking water sources, water supply and initiate corrective action to have contaminants free water.
- Ensure equity – high priority in coverage/investment habitations with high SCs/STs and minority population.
- Promote participatory integrated water resources management with a view to ensure drinking water security – water availability, supply and consumption to be measured.

NRDWP proposes three structures

Water and Sanitation Support Organization (WSSO)
District Water and Sanitation Mission (DWSM)
Block Resource Centre (BRC)

- Provide access to information through online reporting system with information in public domain to bring in transparency and informed decision making.
- Ensuring household level drinking water security through water budgeting and preparation of village water security plans.
- Consciously move away from high cost treatment technologies for tackling arsenic and fluoride contamination to development of alternative sources in respect of arsenic and alternate sources/dilution of aquifers through rainwater harvesting for tackling fluoride contamination.

The NRDWP guidelines mandate that the PRIs and the local community be involved at all stages from planning, implementation, operation and maintenance and monitoring of drinking water supply schemes. This is because drinking water security is best managed at the local level where attention is given to conservation of water, equity in distribution and usage addressed and immediate action taken for necessary repairs so that regular supply is assured.

3.1.1.2 Sector Reforms Project

Recognising that users of water are the best managers, the Government approved grant of incentives to States for institutionalization of community participation in rural water drinking programme. Accordingly, Sector Reforms Project (SRP) was introduced in 67 selected districts in 1999 to primarily address issues and of system and source sustainability. Under the SRP, 86,769 schemes were taken up. These schemes were spread in 29,956 habitations of 65 districts in 25 states (the project did not take off in 2 districts of Sikkim). The salient features of SRP initiative are:

- Focus on village level capacity building
- Emphasis on awareness generation and training of all stakeholders
- 10% capital cost sharing wherein differential rates were inbuilt for ST/SC and weaker section of the society further, 100% sharing of O&M cost by users
- Measures for sustained supply of water either through Rain Water Harvesting or Ground Water Recharge Schemes

Based on the experience gained, the Sector Reform Programme was expanded as the Swajaldhara Programme, under which the participation of the community in planning, implementation, operation and maintenance was a major factor.

3.1.1.3 Swajaldhara

On 25th December 2012, the reform initiative in the Rural Drinking Water Sector was scaled up throughout the country by launching the Swajaldhara by the Hon'able Prime Minister. Swajaldhara had two streams:

- Swajaldhara I – which has Gram Panchayat as the lowest unit for implementing reform initiatives; and
- Swajaldhara II – which has district as the unit for implementation.

"Guidelines for Environment Safety as per Swajaldhara:"

Rural drinking water, sanitation, health and hygiene programmes need to be integrated at the State, District, Block and GP levels.

States would need to enact and implement law on effective ground water extraction control, regulation and recharge

Swajaldhara has certain fundamental reform principles as given below, which need to be adhered by the State Governments and Implementing agencies.

- Full ownership of drinking water assets with appropriate level of Panchayats
- Partial Capital cost sharing either in cash or kind including labour or both, wherein panchayat/village water & sanitation committees are empowered to implement differential rates for ST/SC and weaker section of the society. Further, 100% responsibility of Operation & Maintenance are to be borne by the users
- An integrated service delivery mechanism
- Community participation based on empowerment of villagers to ensure their full participation in the project through a decision making role.

3.1.1.4 Total Sanitation Campaign (TSC)

"Improvement in general quality of life in rural areas"

"Accelerate Sanitation coverage"

"Motivate communities and PRIs to promote awareness'

Individual Health and hygiene is largely dependent on adequate availability of drinking water and proper sanitation. There is, therefore, a direct relationship between water, sanitation and health. Consumption of unsafe drinking water, improper disposal of human excreta, improper environment sanitation and lack of personal and food hygiene have been major causes of many diseases in developing nations like India. It was in this context that the Central Rural Sanitation Programme (CRSP) was launched in 1986 primarily with the objective of improving the quality of life of the rural people and also to provide privacy and dignity to women. The concept of sanitation apart from disposal of human excreta includes solid and liquid waste disposal, food hygiene, personal, domestic as well as environmental hygiene. The CRSP was restructured in the 1999 to move towards a "Demand Driven" approach. This revised approach titled "Total Sanitation Campaign (TSC)" emphasises more on Information, Education and Communication

(IEC), Human Resource Development, Capacity Development activities to increase awareness among the rural people and generation of demand for sanitary facilities. The main objectives of TSC are as under:

- To bring an improvement in general quality of life in rural areas.
- Accelerate Sanitation coverage in villages
- Motivate communities and PRIs to promote awareness and health education.
- Encourage cost effective and appropriate technologies for ecologically safe and sustainable sanitation.
- Develop community managed environmental sanitation systems focusing on solid & liquid waste management.

3.1.1.5 Nirmal Bharat Abhiyan (NBA)

Nirmal Bharat Abhiyan was a comprehensive programme to ensure sanitation facilities in rural areas with broader goal to eradicate the practice of open defecation by 2022. NBA gave strong emphasis on Information, Education and Communication (IEC), Capacity Building and Hygiene Education for effective behaviour change with involvement of PRIs, NGOs etc. The main purpose of NBA was as given below:

- To cover all schools and Anganwadis with toilets. Special focus to the Below Poverty Line (BPL) households
- Eliminate manual scavenging
- Eradicate the practice of open defecation
- Clean Environment
- Improve the general quality of life in rural areas

3.1.1.6 Swachh Bharat Abhiyan

Swachh Bharat Abhiyan (Campaign Clean India) is a national level campaign by the Government of India covering 4041 statutory towns to clean the streets, roads and infrastructure of the country. This campaign aims to accomplish the vision of 'clean India' two years before what NBA has envisaged i.e. by 2nd October 2019, 150th Birthday of Mahatma Gandhi and is expected to cost over Rs. 62,000 crores. The campaign is described as "beyond politics" and "inspired by patriotism."

The concept of Swachh Bharat is to pave access for every person to sanitation facilities including toilets, solid and liquid waste disposal systems, village cleanliness and safe and adequate drinking water supply.

"Sanitation is more important than independence." Quoted by Father of Nation, Mahatma Gandhi

NBA is restructured to Swachh Bharat Abhiyan

- Swachh Bharat Abhiyan (Gramin)
- Swachh Bharat Abhiyan (Urban)

Punjab Water Supply and Sanitation Department is primarily entrusted with the responsibility of providing safe drinking water to the rural population and execution of sanitation works. The Policy on Rural Drinking Water programme aims to provide every rural person with adequate water for drinking, cooking and other domestic needs on a sustainable basis.

3.1.2 Water Policies of Punjab

3.1.2.1 Punjab State Water Policy Draft, 2008

The state water policy envisions that available water resources should be utilized efficiently and judiciously to meet drinking water needs and irrigation requirements in a manner that also promotes its conservation and engenders community participation. It also outline the fact that the quality of surface water and ground water as well as soil shall be monitored for improvement to bring it up to the standards fixed by State Pollution Control Board.

Water Supply and Sanitation in state of Punjab is guided by the following state Acts / Laws presented in the table below.

Table 3.1: Punjab State Acts / Laws related to Water Supply & Sanitation

Act / Law	Scope of Act / Law
The Punjab Panchayati Raj Act, 1994	Greater Participation of the people and more effective implementation of rural development and Panchayati raj system
The Punjab State Tube Well Act, 1954	To provide for the construction improvement and maintenance of the State Tube Wells Irrigation works in Punjab

Source: punjabrevenue.nic.in, International Environmental Law Research Centre

3.1.2.2 Punjab State Rural Water Supply and Sanitation Policy (PSRWSSP) 2014

The Department of Water Supply and Sanitation (DWSS) has been implementing and managing rural drinking water supply schemes in the state. As on 31st December 2012, there are 8319 single village and multi-village water supply schemes in the state, which are either tube-well based (80%) or canal based (20%). The state is facing major issues related to depleted sources, climate change, increase in contamination in ground water etc. At the same time, the State is committed to decentralized management of rural water supply and sanitation schemes, in accordance with the 73rd Constitutional amendment, by strengthening GPs to manage schemes and provide improved services with the DWSS being a partner and facilitator. It is also committed to continue the sector wide approach (SWAp), adopted in development, execution and management of rural water supply and sanitation schemes, through various decentralized management structures including GPs/Village Water and Sanitation Committees (VWSCs).

As on date, there are 8,319 single village and multi village water supply schemes in the state, majority of which are either tube well based or canal based. Further, according to 2011 census data, there is a significant change in decreasing open defecation percentage in Punjab, and sanitation coverage of approximately 70%, there are no sanitation facilities for around 30% of rural households. Those who do not have access to toilet practice open defecation which not only results in degraded sanitation situation but also contaminates shallow ground water.

Considering the above need the State has formulated new Water & Sanitation Policy in 2014. This policy intends to establish bottom up approach and devolution of power in true sense. With this policy in place, the state is handing over all single village schemes and intra-village works of multi-village schemes to GPs/GPWSCs in a time-bound manner. Also the new schemes are being implemented as per SWAp principles in all villages based on demand for the services by passing a Resolution at the Gram Sabha and agreeing to the conditions of self-management, including beneficiary contribution towards capital cost and taking over management of created assets on a sustainable basis. The funds are to be transferred to implement new single-village schemes and all intra-village works of multi-village schemes to GPs/VWSCs, who would take responsibility for planning, technology selection (type of scheme), procurement (bid invitation, award) and construction activities.Major objectives of this policy are as given in table below:

Table 3.2: Objectives of Punjab State Rural Water Supply & Sanitation Policy 2014

Sr. No.	Objectives	Key Feature of each objective
1	Water Coverage	To provide 100% coverage of all households in rural areas of Punjab with at least 70 lpcd of potable water, supplied through 24x7 piped and metered individual water supply connections.
2	Sanitation coverage	To ensure that 100% of rural households have access to an use safe sanitation facilities that do not contaminate the environment, particularly ground water.
3	Hygiene	To ensure that 100% of rural households practice safe personal hygiene practices, especially hand washing at critical times, to minimize risks of water related diseases.
4	Sustainable Water supply	To ensure the availability, quality and sustainability of domestic water supplies by ● Conserving existing water sources ● Improving the efficiency of existing schemes ● Using all possible options of water treatment as per requirement ● Developing new and sustainable water sources.
5	Water regulation	To regulate the use of water, using institutional and legal means, so as to provide adequate water to all users.
6	Environmental sustainability	To improve the quality of life and environment through the effective and efficient management of water services.
7	User participation	To ensure effective participation of users in developing, operating and maintaining water supply services and to empower them to manage their own water supply and environmental sanitation services.
8	Institutional Capacity	To improve institutional capacity and human resources of government departments to provide efficient, effective and sustainable water and

Sr. No.	Objectives	Key Feature of each objective
		sanitation services.

Source: Punjab Water Policy 2014

3.2 Analysis of National & State Level Policies on Water & Sanitation

Above mentioned National Policies have enabled the State Punjab to formulate and implement inclusive policy for their state. Looking at devolution index of IIPA/MOPR, 2013 wherein Punjab scored 60 (of 100) compared to the national average of 51 (of 100) so far legal and institutional framework for devolution is concerned. However, terms of the index of actual devolution of functions, State could scores 24 against the national average of 34, because implementation of all the 29 functions as per Eleventh Schedule of the Constitution (Lok Sabha, 2013) was not undertaken. Similarly the Financial devolution index in Punjab fares rather poorly compared to other states – scoring only 17 against a national average of 29 and the indices for Capacity building and Accountability for Punjab were 39 and 47, compared to national averages of 50 and 43 respectively (IIPA/MOPR, 2013).

The State has incorporated learnings from the World Bank supported Punjab Rural Water Supply and Sanitation project (phase 1) on 2007-2013 in the recent State Policy of 2014. The state policy in rural water supply and sanitation aims to deliver technically sound infrastructure and financially sustainable water supply and sewerage schemes to the villages of Punjab.

Analysis of Punjab State policy concludes that the State is concerned on social aspects of service delivery and has gone ahead and has initiated work towards establishment of decentralized management of rural water supply and sanitation schemes as per 73rd Constitutional amendment. For which, GPs are empowered and GPWSCs are constituted as a subcommittee of GP. The GPWSCs have been entrusted with the central role for planning, implementation and O&M phases. After commissioning, GPWSCs are key to sustainable operations ensuring that good quality services are provided, and users pay to cover at least all O&M expenses. As is in evidence in some of the GPWSCs, improved service levels (good quality water, supplied continuously 24X7, at household level, metered for consumption, etc.) have also been accompanied by the GPWSCs raising awareness about the value of the service, and revising tariffs to take care of increase in input costs (e.g. costs of energy).

Further, under Nirmal Bharat Abhiyan Incentive is provided for construction of Individual Household Latrines (IHHL) to all Below Poverty Line (BPL) Households and Above Poverty Line (APL) households restricted to SCs/STs, Small and Marginal farmers, Landless Labourers with homestead, Differently Abled and Women Headed households.

Similarly, National Water Policy 2012, under the section nine (Project Planning and Implementation) emphasises upon giving due consideration to the unique needs and aspirations of the Schedule Caste and women and other weaker sections of the society. State is trying to build capacity of GPWSCs to manage schemes and provide improved services, with the DWSS being a partner and facilitator. In addition State has also committed to continue the sector wide approach (SWAp), adopted in development, execution and

management of rural water supply and sanitation schemes, through various decentralized management structures including GPs/Village Water and Sanitation Committees (GPWSCs).

Punjab State Rural Water Supply and Sanitation Policy (PSRWSSP), 2014 talks about inclusion of 100% households at panchayat level. As per the policy Punjab DWSS is extending special assistance (subsidies) to BPL and poor families. For which GPWSCs are empowered to take decision on subsidised households including women headed households, disabled persons, landless people etc.

Table 3.3: Subsidy in Water Supply & Sewer System

Capital Cost share	General Population	SC & BPL
Normal area	Rs. 800	Rs. 400
Difficult area (hilly terrain, area with submerged land, boarder, etc)	Rs 400	Rs 200

Source: Data collection for from GPs and validated by SPMC

The analysis of policies related to Water & Sanitation indicates that the State is progressive in implementing participatory approaches and has strong policy support. The state has already implemented the pro poor policy. Hence, no policy augmentation is suggested however, vulnerability development plan is suggested for 100% inclusion.

3.3 The World Bank Safeguard Policies

The applicability of World Bank social safeguard issues related to Indigenous People (OP 4.10) and Involuntary Resettlement (OP 4.12) to the demonstration zones and priority investments were examined under this section. Field visits to the demonstration areas and pipeline routes were conducted to examine if the proposed project (demonstration zones and priority investments) would attract the provisions of OP 4.10 and OP 4.12. During these field visits, a number of persons were met including Government officials, community, PRIs, Development Partners and NGOs.

The following table describes the relevant safeguard policies of the World Bank and discusses their applicability in this project.

Table 3.4: Applicability of Social Safeguard Policy

Policy	Key Features of Policy	Applicability on this Project
OP 4.10 / BP 4.10 – Indigenous Peoples	▪ Self-identification as members of a distinct indigenous cultural group and recognition of this identity by others; ▪ Collective attachment to geographically distinct habitats or ancestral territories in the project area and to the natural resources in these habitats and territories; ▪ Customary cultural, economic, social, or political institutions that are separate from those of the	Data of drinking water & sanitation confirms non availability of Scheduled Tribe habitation in Punjab. Same has been validated by census 2011 data. On the basis of these factors, it is concluded that the project does not directly or indirectly affect rights or culture of indigenous peoples and that an indigenous peoples plan is not required. Thus, the OP 4.10 on Indigenous Peoples is

Policy	Key Features of Policy	Applicability on this Project
	dominant society and culture; and ▪ An indigenous language, often different from the official language of the country or region	not applicable
OP/BP 4.12 – Involuntary Resettlement	▪ Involuntary resettlement should be avoided where feasible, or minimized, exploring all viable alternative project designs. ▪ Where it is not feasible to avoid resettlement, resettlement activities should be conceived and executed as sustainable development programs, providing sufficient investment resources to enable the persons displaced by the project to share in project benefits. Displaced persons should be meaningfully consulted and should have opportunities to participate in planning and implementing resettlement programs. ▪ Displaced persons should be assisted in their efforts to improve their livelihoods and standards of living or at least to restore them, in real terms, to pre-displacement levels or to levels prevailing prior to the beginning of project implementation, whichever is higher	Water supply and sewerage schemes of Punjab are planned under broad categories -- Single Habitation Scheme (SHS) and Multi Habitation Scheme (MHS). Land will be required for building infrastructure for different purposes like: ▪ Water Supply- already existing ▪ For sewer system, 2-3 acres land will be required for sewer treatment plan (STP), waster stabilization ponds etc. However, during discussion with GoP officials it was reported that as per GoP PRWSS, the land for the infrastructure has to be provided by the GPWSCs (published Government Order in place). The same was confirmed during community level Focus Group Discussions (FGDs) which were conducted in each panchayat. It was reported by the villagers as well as the panchayat head that land is available under possession of panchayat and this could be transferred to project for construction of public infrastructure. Hence, OP 4.12 on Involuntary Resettlement is not applicable.

Source: MM Study

3.4 Analysis of World Bank Safeguard Policies

In line with the requirements, the World Bank's safeguards Policies were referred to the operation policies of the World Bank.

Indigenous Peoples: The state has no habitation with Scheduled Tribe population hence; the project will not directly or indirectly affect the rights or culture of indigenous peoples. Hence, OP 4.10 Indigenous Peoples Plan is also not applicable as there is no tribal population in the state. However, **vulnerable inclusion plan** will be prepared for inclusion of women headed households, Below Poverty line population, disabled population, destitute, scheduled caste population etc the plan is included in section 11.2.

Involuntary Resettlement: During discussions with GoP officials it was reported that as per PRWSS policy, the land for the infrastructure has to be provided by the GPWSCs (published Government Order in place). The same was confirmed during community level Focus Group Discussions (FGDs) which were conducted in each panchayat. It was reported by the villagers as well as the panchayat head that land is available under possession of panchayat and this could be transferred to project for construction of public infrastructure. The main component that requires land is sewerage scheme with treatment systems. These schemes require about 2.5 acres per scheme. These facilities would be located in encumbered GP lands. The scheme selection criteria will ensure that such sewerage schemes will be taken up only in such GPs where land is available. The total extent of land needed for this entire project is of the order of 787.5 acres

(315 scheme x 2.5 acre per scheme). Other project components are of the nature of up gradation of service levels, increasing access through expanding house connections, improving inclusion by extension to cover uncovered areas and addressing water quality issues. As such there is no requirement of land anticipated for these components. In exceptional cases if land is needed for these components, these facilities would be located on unencumbered GP lands or through direct market purchase (willing buyer-willing seller).

Thus, the assessment concludes that no land will be acquired involuntarily and hence Operational Policy (OP) 4.12 Involuntary Resettlement will not be triggered. However, the project required land which will be provided by the panchayat before the agreement is signed for scheme installation or up gradation.

4 Findings on Status of Services & Stakeholder Analysis

4.1 Inclusion & Equity in terms of Access of Services

Inclusion of community is defined as the access to the services, its regularity, its adequacy, utilisation by different social groups, and quality of services. During interaction it was observed that panchayat/ government installed water sources are referred as public water sources and are generally thought to be safe.

4.1.1 Water Supply

4.1.1.1 Scheme providing water in Villages

In all 59 percent of the households get water under single village scheme followed by 36.5 percent households getting water under multi-village scheme and 1.6 percent households getting water supply under mini-water scheme.

Table 4.1: Scheme under which water is supplied

Scheme under which water is supplied	Districts													
	Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Multi village scheme	68	28.6	197	59.5	27	14.7	161	56.3	22	11.6	96	28.6	571	36.5
Single village scheme	167	70.2	119	36.0	152	82.6	115	40.2	143	75.3	228	67.9	924	59.0
Mini - water scheme	2	0.8	0	0.0	3	1.6	1	0.3	11	5.8	8	2.4	25	1.6
DK/CS	1	0.4	15	4.5	2	1.1	9	3.1	14	7.4	4	1.2	45	2.9
Total	**238**	**100.0**	**331**	**100.0**	**184**	**100.0**	**286**	**100.0**	**190**	**100.0**	**336**	**100.0**	1565	100.0

Data collected by Nielson & Analysed by MM

4.1.1.2 Access to water supply- Main source of water for household

The table below provides details regarding major source of water for the household. It was found that majority of the households (55.7 percent) use household tap connection with piped water supply as the major source of drinking water. The water supplied through household taps and public stand posts have been generally referred to as water supply from piped water sources.

It was also found that about 21.9 percent of the respondents use tube well/bore well, whereas 9.2 percent have individual hand pumps as major source of water, and 5.1 percent respondents use individual hand pumps fitted with motor pump.

Table 4.2: Main source for water

Main source of water for household	Districts													
	Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Household tap connection with piped water supply	211	53.0	290	72.3	138	36.9	232	58.0	139	34.7	314	77.9	**1324**	**55.7**
Stand post with piped water supply	2	.5	2	.5	3	.8	2	.5	5	1.2	10	2.5	**24**	**1.0**
Tank Type stand post attached to Mini-water supply scheme	3	.8	12	3.0	5	1.3	6	1.5	23	5.7	0	.0	**49**	**2.1**
Water from RO Plants	0	0	0	0	17	4.5	4	1.0	2	.5	1	.2	**24**	**1.0**
Government deep bore hand pump (India mark-II)	0	0	1	.2	1	.3	3	.8	2	.5	3	.7	**10**	**0.4**
Community/Panchayat installed hand pumps	0	0	0	0	1	.3	8	2.0	17	4.2	0	.0	**26**	**1.1**
Individual hand pump	38	9.5	34	8.5	11	2.9	108	27.0	8	2.0	19	4.7	**218**	**9.2**
Individual hand pump fitted with motor pump	45	11.3	4	1.0	1	.3	22	5.5	47	11.7	3	.7	**122**	**5.1**
Jet pump	0	0	5	1.2	4	1.1	0	.0	5	1.2	0	.0	**14**	**0.6**
Tube well /Bore well	99	24.9	46	11.5	175	46.8	8	2.0	140	34.9	53	13.2	**521**	**21.9**
River/ Stream	0	0	0	0	0	0			0	0	0		**0**	**0.0**
Irrigation canal	0	0	0	0	0	0	3	.8	0	0	0	0	**3**	**0.1**
Wells	0	0	0	0	0	0	0	.0	0	0	0	0	**0**	**0.0**
Ponds/ tanks	0	0	0	0	0	0	2	.5	0	0	0	0	**2**	**0.1**
Irrigation tube wells	0	0	2	.5	0	0	2	.5	2	.5	0	0	**6**	**0.3**
Other	0	0	5	1.2	18	4.8	0	.0	11	2.7	0	0	**34**	**1.4**
Total	**398**	**100.0**	**401**	**100.0**	**374**	**100.0**	**400**	**100.0**	**401**	**100.0**	**403**	**100.0**	**2377**	**100.0**

Data collected by Nielson & Analysed by MM

Further, while comparing the above analysis from census 2011, 33.8 percent rural households in Punjab use hand pump as main source of drinking water, followed by 28 percent households using tube well/borehole as main source of drinking water whereas 25.3 percent use tap water from treated source.

The study tried to understand aspects of equity in the distribution and access to public water sources, analysis of the data shows that about 21.6 percent habitations have public water sources available to all SC dominated areas within the habitation. During baseline (2009) 30.3 percent habitations had public water sources available to all SC areas within the habitation. Hence, there is a reduction in status may be due to increase in number of SC habitations. Further, 13.9 percent habitations have public water sources available in some SC dominated areas of the habitation. Moreover, 11 percent of the habitations reported having no SC dominated area, while 7 percent habitations did not have Public water sources.

Table 4.3: **Availability of functioning public water sources located in schedule caste dominated areas of this habitation**

	Yes - all SC dominated areas %	Yes - some SC dominated areas %	No %	Not applicable - no SC dominated areas in this habitation %	Not applicable - no public water sources in this habitation %	Total N
Amritsar	20	5	35	30	10	20
Hoshiarpur	30	20	50			20
Moga	40	5	50		5	20
Muktsar	40	5	35	15	5	20
Sangrur	35	5	55	5		20
SBS Nagar	55		45			20
Total for Punjab	**21.6**	**13.9**	**47**	**10.5**	**7**	**440**

Data collected by Nielson & Analysed by MM

4.1.1.3 Distance of Source of Water from Households

The table below provides detail regarding distance of water source from the house of respondents covered under the study. Majority of the respondents i.e. 90.6 percent informed that water source exist within their premises. Further, percentage of respondents reporting water source to be very far from their households is very less which establishes the fact that people have good access to water source in the region.

Table 4.4: Distance of water source from house

Distance of water source from house	Districts													
	Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Within premises	387	97.2	366	91.3	330	88.2	316	79.0	357	89.0	398	98.8	**2154**	**90.6**
< 50 m	2	.5	19	4.7	8	2.1	43	10.8	29	7.2	5	1.2	**106**	**4.5**
50 - 100 m	9	2.3	10	2.5	14	3.7	20	5.0	9	2.2	0	0.0	**62**	**2.6**
101 - 500 m	0	0	5	1.2	11	2.9	9	2.3	4	1.0	0	0.0	**29**	**1.2**
501 m - 1 km	0	0	1	.2	5	1.3	9	2.3	0	.0	0	0.0	**15**	**0.6**
1.1 - 1.5 km	0	0	0	0	4	1.1	0	0	1	.2	0	0.0	**5**	**0.2**

Distance of water source from house	Districts													
	Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
> 1.5 km	0	0	0	0	2	.5	3	.8	1	.2	0	0.0	**6**	**0.3**
Total	**398**	**100.0**	**401**	**100.0**	**374**	**100.0**	**400**	**100.0**	**401**	**100.0**	**403**	**100.0**	**2377**	**100.0**

Data collected by Nielson & Analysed by MM

Similarly, as per census 2011, 81.6 percent of the rural households in Punjab have water source (drinking water) within premises while 12.7 percent households have water source near to their premises.

4.1.1.4 Adequacy of water supply

Table below depicts about adequacy of water from existing sources for all requirements of household. Most of the respondents (about 78.9 percent) covered in the study said that they have adequate water for all their requirements while about 16.5 percent said that it is mostly adequate. About 4.5 percent of the respondents said that water is not adequate for their all requirements and they have to use other sources.

Table 4.5: Adequacy of water for all requirements

Does household have adequate water for all requirements from existing source	Districts													
	Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Yes	359	90.2	310	77.3	299	79.9	231	57.8	344	85.8	333	82.6	**1876**	**78.9**
Mostly adequate	32	8.0	80	20.0	59	15.8	148	37.0	23	5.7	51	12.7	**393**	**16.5**
Not adequate - have to use other sources	7	1.8	11	2.7	16	4.3	21	5.3	34	8.5	19	4.7	**108**	**4.5**
Total	**398**	**100.0**	**401**	**100.0**	**374**	**100.0**	**400**	**100.0**	**401**	**100.0**	**403**	**100.0**	**2377**	**100.0**

Data collected by Nielson & Analysed by MM

4.1.1.5 Reliability of water source

While asking about the reliability of the water sources, most of the respondents (76.5 percent) stated that the current water source provides water on reliable basis, whereas 16.7 percent said that reliability is good most months of the year. It was found that 6.8 percent of the respondents covered in this study disagreed with the reliability of the water from current water sources, see the table below:

Table 4.6: Reliability of the water source to provide water

Does current water source provide water on reliable basis	Districts													
	Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Yes	338	84.9	308	76.8	275	73.5	241	60.3	336	83.8	320	79.4	**1818**	**76.5**
Most months of the year	41	10.3	81	20.2	72	19.3	120	30.0	39	9.7	44	10.9	**397**	**16.7**
No	19	4.8	12	3.0	27	7.2	39	9.8	26	6.5	39	9.7	**162**	**6.8**
Total	**398**	**100.0**	**401**	**100.0**	**374**	**100.0**	**400**	**100.0**	**401**	**100.0**	**403**	**100.0**	**2377**	**100.0**

Data collected by Nielson & Analysed by MM

4.1.1.6 Time when water supply not reliable

Table below presents the details about timings when the water supply seems not reliable. Most of the respondents (about 55.8 percent) said that water supply is not reliable during the summer, whereas about 26.1 percent of the respondents said that reliability of the water supply is on and off throughout the year. About 14.5 percent respondents stated that during times when the fields are irrigated, the water supply seems unreliable. About 3.6 percent of the respondents covered in the study gave some other timings of unreliable water supply.

Table 4.7: Timings when water supply is not reliable

When is water supply not reliable	Districts													
	Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
During summer	27	45	72	77.4	47	47.5	75	47.2	47	72.3	44	53.0	**312**	**55.8**
During times when the fields are irrigated	26	43.3	11	11.8	8	8.1	35	22.0	1	1.5	0	0.0	**81**	**14.5**
On and off throughout the year	7	11.7	10	10.8	36	36.4	49	30.8	16	24.6	28	33.7	**146**	**26.1**
Other	0	0	0	0.0	8	8.1	0	0.0	1	1.5	11	13.3	**20**	**3.6**
Total	**60**	**100.0**	**93**	**100.0**	**99**	**100.0**	**159**	**100.0**	**65**	**100.0**	**83**	**100.0**	**559**	**100.0**

Data collected by Nielson & Analysed by MM

4.1.1.7 Utilisation of available water source for drinking

Most of the respondents (about 85.3 percent) stated that the water from existing source is used for drinking whereas about 9.6 percent said that water from existing source is used for drinking sometimes only. About 5.1 percent of the respondents covered said that they do not use water from the existing source for the drinking purpose.

Table 4.8: Use of existing water source for drinking

Is water from existing source used for drinking	Districts													
	Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Yes	368	92.5	374	93.3	271	72.5	246	61.5	375	93.5	393	97.5	**2027**	**85.3**
Sometimes	23	5.8	20	5.0	71	19.0	100	25.0	8	2.0	6	1.5	**228**	**9.6**
No	7	1.8	7	1.7	32	8.6	54	13.5	18	4.5	4	1.0	**122**	**5.1**
Total	**398**	**100.0**	**401**	**100.0**	**374**	**100.0**	**400**	**100.0**	**401**	**100.0**	**403**	**100.0**	**2377**	**100.0**

Data collected by Nielson & Analysed by MM

The analysis shows no social group wise difference in utilisation of available drinking for sources.

4.1.1.8 Usage of water for different purposes

The table below is based on qualitative data which has been collected by the social assessment team. It provides information regarding average per day water consumption of one person as collected during the study, in litres. It was found that 100 percent of the respondents use less than 10 litres of water for drinking and cooking purposes. An average 49.3 litres of water is being used by each person in the covered area, this data varies from 41.1 litres in Sangrur to 62 litres in Hoshiarpur.

Table 4.9: Amount of water required for various purposes (Litres/per person)

Use of water for different purposes (Litres)	Amritsar	Hoshiarpur	Moga	Muktasar	Sangrur	Sas Nagar
Drinking	4.7	5	3.5	4.5	2	2.8
Cooking	1.5	2	2	2	1	2
Bathing (Personal Hygiene)	15	17	15	15	14	15
Washing utensils	7	10	6	12	12	10
Washing clothes	15	20	25	15	10	12
Cleaning house	1.9	8	1.3	3.1	2.1	1.7
Average water required for one person	**45.1**	**62**	**52.8**	**51.6**	**41.1**	**43.5**

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4.1.1.9 Quality of water

While asking about the quality of water from the existing water sources, most of the respondents said that water quality is good (58.9 percent), while about 36 percent respondents said that quality is average followed by 4.9 percent of the respondents who stated that water quality is poor. See the table below:

Table 4.10: Quality of water

	Districts													
	Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
Quality of water	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
Good	278	69.8	237	59.1	147	39.3	215	53.8	266	66.3	256	63.5	**1399**	**58.9**
Average	111	27.9	149	37.2	188	50.3	155	38.8	119	29.7	140	34.7	**862**	**36.3**
Poor	9	2.3	15	3.7	39	10.4	30	7.5	16	4.0	7	1.7	**116**	**4.9**
Total	**398**	**100.0**	**401**	**100.0**	**374**	**100.0**	**400**	**100.0**	**401**	**100.0**	**403**	**100.0**	**2377**	**100.0**

Data collected by Nielson & Analysed by MM

4.1.1.10 Problem regarding Quality of Drinking Water

The table below depicts problems being faced by households in terms of drinking water quality from main water source. Majority of the respondents i.e. 60.8 percent, informed that they do not have any problem with regard to quality of water. However, 24.7 percent respondents reported about unacceptable taste of the drinking water followed by 17.5 percent reporting about water being not clear.

Table 4.11: Problem in terms of Drinking water quality-main water source

	Districts													
Problem in terms of Drinking water quality-main water source	**Amritsar**		**Hoshiarpur**		**Moga**		**Sri Muktsar Sahib**		**Sangrur**		**SAS Nagar**		**Total**	
	N	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
Unacceptable taste	63	15.8	56	14.0	129	34.5	126	31.5	111	27.7	102	25.3	**587**	**24.7**
Unacceptable smell	46	11.6	17	4.2	69	18.4	24	6.0	44	11.0	37	9.2	**237**	**10.0**
Not clear	78	19.6	33	8.2	77	20.6	53	13.3	81	20.2	93	23.1	**415**	**17.5**
High iron content	7	1.8	1	0.2	19	5.1	5	1.3	28	7.0	21	5.2	**81**	**3.4**
Unacceptable quality because of fluorides	12	3.0	3	0.7	22	5.9	5	1.3	14	3.5	5	1.2	**61**	**2.6**
No problem	252	63.3	307	76.6	181	48.4	230	57.5	245	61.1	230	57.1	**1445**	**60.8**
Other	0	0.0	0	0.0	7	1.9	1	0.3	2	.5	2	0.5	**12**	**0.5**
Total (N) Multiple Response	**398**		**401**		**374**		**400**		**401**		**403**		**2377**	

Data collected by Nielson & Analysed by MM

4.1.1.11 Purification of water

Table below presents the practice of purification of water. It was found that most of the respondents covered do not purify the water (about 84.3 percent) while only 15.7 percent said that they purify water before drinking and other usages.

Table 4.12: Practice for purifying water

Purifying of water	Districts													
	Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Yes	72	18.4	29	7.4	58	17.0	63	18.2	83	21.7	50	12.5	**355**	**15.7**
No	319	81.6	365	92.6	284	83.0	283	81.8	300	78.3	349	87.5	**1900**	**84.3**
Total	**391**	**100.0**	**394**	**100.0**	**342**	**100.0**	**346**	**100.0**	**383**	**100.0**	**399**	**100.0**	**2255**	**100**

Data collected by Nielson & Analysed by MM

No social group wise differences were reported during the survey.

4.1.2 Sanitation & Solid Waste Management

4.1.2.1 Access to Toilet

The table below depicts that 83.8 percent of the households have toilets while 16.2 percent do not have toilets within their premises.

Table 4.13: Access to Toilet

Access to Toilet	Districts													
	Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Yes	319	80.2	278	69.3	351	93.9	330	82.5	361	90.0	352	87.3	**1991**	**83.8**
No	79	19.8	123	30.7	23	6.1	70	17.5	40	10.0	51	12.7	**386**	**16.2**
Total	**398**	**100.0**	**401**	**100.0**	**374**	**100.0**	**400**	**100.0**	**401**	**100.0**	**403**	**100.0**	**2377**	**100.0**

Data collected by Nielson & Analysed by MM

Whereas according to census 2011, 70.4 percent of rural households in Punjab have latrine/toilet facility while 29.6 percent do not have toilet/latrine within premises.

4.1.2.2 Type of Toilet

Subsequently, the table below provides information regarding type of toilets in the households. 33.9 percent households have single pit toilets followed by 32.3 percent having toilet with septic tank, 21.6 percent households having twin pit toilet and 9.4 percent have bore well latrine. Only 2.1 percent of the households informed of having VIP toilet.

Table 4.14: Type of Toilet

	Districts													
	Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
Type of Toilet	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
Bore well Latrine	3	0.9	24	8.6	47	13.4	40	12.1	41	11.4	33	9.4	**188**	**9.4**
Single pit toilet	49	15.4	143	51.4	183	52.1	96	29.1	141	39.1	62	17.6	**674**	**33.9**
Twin pit toilet	106	33.2	54	19.4	45	12.8	80	24.2	38	10.5	108	30.7	**431**	**21.6**
Toilet with Septic tank	147	46.1	56	20.1	61	17.4	107	32.4	133	36.8	139	39.5	**643**	**32.3**
VIP Toilets	8	2.5	1	0.4	13	3.7	5	1.5	7	1.9	8	2.3	**42**	**2.1**
Toilet attached to a sewerage system	6	1.9	0	0.0	2	0.6	2	0.6	1	.3	2	0.6	**13**	**0.7**
Total	**319**	**100.0**	**278**	**100.0**	**351**	**100.0**	**330**	**100.0**	**361**	**100.0**	**352**	**100.0**	**1991**	**100.0**

Data collected by Nielson & Analysed by MM

Further, according to census 2011, 32.6 percent rural households in Punjab have Flush/pour flush latrine with septic tank followed by 22.5 percent having pit latrine with slab.Table below shows that latrine pit attached to toilet with brick lined in a honey comb structure are 48.1% whereas 51.9% are unlined (*Kutcha*) pit. Highest percentage of *Kutcha* pits are in Sangrur District (71.5%) followed by Moga (64.9%) whereas lowest percentage is in SAS Nagar (38.2%).

Table 4.15: Latrine pit attached to Toilet

	Districts													
Latrine pit attached to Toilet	Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
	N	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
Brick lined in a honey comb structure	120	77.4	93	47.2	80	35.1	83	47.2	51	28.5	105	61.8	**532**	**48.1**
Unlined (kutcha) pit	35	22.6	104	52.8	148	64.9	93	52.8	128	71.5	65	38.2	**573**	**51.9**
Total	**155**	**100.0**	**197**	**100.0**	**228**	**100.0**	**176**	**100.0**	**179**	**100.0**	**170**	**100.0**	**1105**	**100.0**

Data collected by Nielson & Analysed by MM

Table below shows that 54.3 percent toilet septic tank is connected to open drain whereas in 29.4 percent it is having sewerage connection. Only 16.3 percent of respondents have no septic tank connectivity.

Table 4.16: Whether septic tank connected to open drain or a sewerage connection

	Districts													
Whether septic tank connected to open drain or a sewerage connection	Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
	N	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
Open drain	75	51.0	13	23.2	8	13.1	27	25.2	119	89.5	107	77.0	**349**	**54.3**
Sewerage	66	44.9	0	0.0	16	26.2	63	58.9	13	9.8	31	22.3	**189**	**29.4**

Whether septic tank connected to open drain or a sewerage connection	Districts: Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
connection														
Neither	6	4.1	43	76.8	37	60.7	17	15.9	1	.8	1	0.7	**105**	**16.3**
Total	**147**	**100.0**	**56**	**100.0**	**61**	**100.0**	**107**	**100.0**	**133**	**100.0**	**139**	**100.0**	**643**	**100.0**

Data collected by Nielson & Analysed by MM

4.1.2.3 Functionality of Toilets

Table below depicts that toilets are functional in 98.6 percent cases. There are no much district wise variations.

Table 4.17: Functional Status of the toilet

Functional Status of the toilet	Districts: Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Functional	319	100.0	276	99.3	339	96.6	324	98.2	355	98.3	350	99.4	**1963**	**98.6**
Clogged, but somewhat functional	0	.0	2	.7	10	2.8	2	0.6	4	1.1	0	0.0	**18**	**0.9**
Non- functional	0	.0	0	.0	2	.6	4	1.2	2	.6	2	0.6	**10**	**0.5**
Total	**319**	**100.0**	**278**	**100.0**	**351**	**100.0**	**330**	**100**	**361**	**100.0**	**352**	**100.0**	**1991**	**100.0**

Data collected by Nielson & Analysed by MM

Table below depicts that majority of respondents (86.7 percent) are having soap/ ash nearby toilet for hand wash. There are no much district wise variations.

4.1.2.4 Solid and Liquid Waste Management

Table below shows that door to door garbage collection is not a common phenomenon reaching up to 97.8 percent and 'Yes' was responded by only 2.9% respondents.

Table 4.18: Door to door garbage collection

Door to door garbage collection	Districts: Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Yes	4	1.0	4	1.0	2	.5	18	4.5	4	1.0	21	5.2	**53**	**2.2**
No	394	99.0	397	99.0	372	99.5	382	95.5	397	99.0	382	94.8	**2324**	**97.8**
Total	**398**	**100.0**	**401**	**100.0**	**374**	**100.0**	**400**	**100.0**	**401**	**100.0**	**403**	**100.0**	**2377**	**100.0**

Data collected by Nielson & Analysed by MM

4.1.3 Regularity & Accountability of Water Supply Services

4.1.3.1 Frequency, Timing, Duration of Water Supply

Of the households using piped water sources and mini-water supply schemes, 87.3 percent informed that they receive water on daily basis while 5.8 percent and 5.5 percent households get water supply on alternate days and less than 3 days a week respectively.

Table 4.19: Frequency of water supply

Frequency of water supply	Districts													
	Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Daily	204	85.7	315	95.2	182	98.9	165	57.7	176	92.6	325	96.7	**1367**	**87.3**
Alternate days	14	5.9	10	3.0	1	0.5	57	19.9	4	2.1	5	1.5	**91**	**5.8**
Less than 3 days a week	20	8.4	0	0.0	0	0.0	59	20.6	1	.5	6	1.8	**86**	**5.5**
NA	0	0.0	6	1.8	1	0.5	5	1.7	9	4.7	0	0.0	**21**	**1.3**
Total	**238**	**100.0**	**331**	**100.0**	**184**	**100.0**	**286**	**100.0**	**190**	**100.0**	**336**	**100.0**	**1565**	**100.0**

Data collected by Nielson & Analysed by MM

On being probed about whether water supply timings are maintained or not, 79 percent of the households informed that supplies are as per fixed timings while according to 19.6 percent households there is no fixed timings for water supply.

Table 4.20: Water supply timings maintained or not

Are the water supply timings usually maintained	Districts													
	Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Supplies are as per fixed timings	218	91.6	304	91.8	159	86.4	119	41.6	163	85.8	274	81.5	**1237**	**79.0**
No fixed water supply timings	20	8.4	21	6.3	24	13.0	162	56.6	18	9.5	62	18.5	**307**	**19.6**
NA	0	0.0	6	1.8	1	0.5	5	1.7	9	4.7	0	0.0	**21**	**1.3**
Total	**238**	**100.0**	**331**	**100.0**	**184**	**100.0**	**286**	**100**	**190**	**100.0**	**336**	**100.0**	**1565**	**100.0**

Data collected by Nielson & Analysed by MM

Inquiry regarding number of times a day water is supplied to households revealed the fact that 65.4 percent of households covered under the study get water supply twice a day followed by 24.7 percent

household getting water supply once in a day. Only 5.4 percent of household reported of 24 hours water supply.

Table 4.21: Number of times a day water is supplied

How many times a day water is supplied	Districts													
	Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Once	16	6.7	84	25.4	9	4.9	210	73.4	4	2.1	63	18.8	**386**	**24.7**
Twice	190	79.8	237	71.6	173	94.0	46	16.1	162	85.3	216	64.3	**1024**	**65.4**
Three times or more	29	12.2	3	0.9	1	0.5	15	5.2	2	1.1	0	0.0	**50**	**3.2**
24 hours	3	1.3	1	0.3	0	0.0	10	3.5	13	6.8	57	17.0	**84**	**5.4**
NA	0	0.0	6	1.8	1	0.5	5	1.7	9	4.7	0	0.0	**21**	**1.3**
Total	**238**	**100.0**	**331**	**100.0**	**184**	**100.0**	**286**	**100.0**	**190**	**100.0**	**336**	**100.0**	**1565**	**100.0**

Data collected by Nielson & Analysed by MM

The table below provide information regarding total duration of water supply to households covered under the study. Majority of the households i.e. 97.6 percent informed that they get water supply for equal to or less than 5 hours.

Table 4.22: Duration of water supply (hours)

Total duration of water supply (hours)	Districts													
	Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
0 to 5	227	96.6	319	98.5	180	98.4	263	97.0	157	93.5	279	100	**1425**	**97.6**
6 to 10	6	2.6	3	0.9	2	1.1	6	2.2	9	5.4	0	0	**26**	**1.8**
11 to 15	0	0.0	0	0.0	0	0.0	1	0.4	0	.0	0	0	**1**	**0.1**
16 to 24	2	0.9	2	0.6	1	0.5	1	0.4	2	1.2	0	0	**8**	**0.5**
Total	**235**	**100.0**	**324**	**100.0**	**183**	**100.0**	**271**	**100.0**	**168**	**100.0**	**279**	**100**	**1460**	**100.0**

Data collected by Nielson & Analysed by MM

On being asked about pressure of water flow during summer, close to 81 percent of the respondents confirmed water pressure to be good while 19 percent responded in negative.

Table 4.23: Water pressure during summer

whether water pressure is good during summer	Districts													
	Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Yes	360	90.5	327	81.5	311	83.2	311	77.8	320	79.8	291	72.2	**1920**	**80.8**
No	38	9.5	72	18.0	63	16.8	82	20.5	79	19.7	112	27.8	**446**	**18.8**
NA	0	0	2	.5	0	0	7	1.8	2	.5	0	0	**11**	**0.5**
Total	**398**	**100.0**	**401**	**100.0**	**374**	**100.0**	**400**	**100.0**	**401**	**100.0**	**403**	**100.0**	**2377**	**100.0**

Data collected by Nielson & Analysed by MM

4.1.3.2 Reliability and Suitability of Water Timings

Subsequently, 79.2 percent of the respondents reported that water supply timings are reliable while according to 20.8 percent respondents supply timings are not reliable.

Table 4.24: Are the water supply timings reliable

Are the water supply timings reliable	Districts													
	Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Yes	207	88.1	285	88.0	143	78.1	164	60.5	140	83.3	218	78.1	**1157**	**79.2**
No	28	11.9	39	12.0	40	21.9	107	39.5	28	16.7	61	21.9	**303**	**20.8**
Total	**235**	**100.0**	**324**	**100.0**	**183**	**100.0**	**271**	**100.0**	**168**	**100.0**	**279**	**100.0**	**1460**	**100.0**

Data collected by Nielson & Analysed by MM

The table below provide information regarding suitability of water supply timings. 91.4 percent respondents informed that timings are suitable while according to 8.6 percent supply timings are not suitable.

Table 4.25: Are the water supply timings suitable

Are the water supply timings suitable	Districts													
	Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Yes	230	97.9	317	97.8	170	92.9	232	85.6	157	93.5	228	81.7	**1334**	**91.4**
No	5	2.1	7	2.2	13	7.1	39	14.4	11	6.5	51	18.3	**126**	**8.6**
Total	**235**	**100.0**	**324**	**100.0**	**183**	**100.0**	**271**	**100.0**	**168**	**100.0**	**279**	**100.0**	**1460**	**100.0**

Data collected by Nielson & Analysed by MM

Probing about water pressure during seasons other than summer, 90.6 percent of the respondents informed that water pressure is good on the other hand 8.9 percent replied in negative.

Difference in the percentage of people confirming good water pressure, during summer and other seasons highlights the fact that pressure of water during summer lessens as compared to other seasons.

Table 4.26: Water pressure during other season

whether water pressure is good during other season	Districts													
	Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Yes	387	97.2	376	93.8	335	89.6	364	91.0	344	85.8	348	86.4	**2154**	**90.6**
No	11	2.8	23	5.7	39	10.4	29	7.3	55	13.7	55	13.6	**212**	**8.9**
NA	0	0	2	.5	0	0.0	7	1.8	2	.5	0	0	**11**	**0.5**
Total	**398**	**100.0**	**401**	**100.0**	**374**	**100.0**	**400**	**100.0**	**401**	**100.0**	**403**	**100.0**	**2377**	**100.0**

Data collected by Nielson & Analysed by MM

Subsequently, households were also asked about main reason for low pressure of water. Responding to this 5.8 percent of the respondents held less supply of water as the main reason followed by 4.2 percent respondents terming lowering of ground water level as the main reason and 2.9 percent of respondents saying that usage of tullu pumps by the households affects water pressure in adverse manner.

Table 4.27: Reason for low pressure

Reason for low pressure	Districts													
	Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Location of house at tail end	4	1.0	12	3.0	8	2.1	6	1.5	20	5.0	14	3.5	**64**	**2.7**
Leakages in supply pipeline	4	1.0	7	1.7	11	2.9	0	0.0	4	1.0	11	2.7	**37**	**1.6**
Location of house at higher elevation	5	1.3	23	5.7	9	2.4	4	1.0	7	1.7	16	4.0	**64**	**2.7**
Lowering / depletion of ground water	22	5.5	2	.5	13	3.5	17	4.3	35	8.7	11	2.7	**100**	**4.2**
Water used by households for irrigation	0	0	0	0	2	0.5	2	0.5	3	.7	3	0.7	**10**	**0.4**
Usage of Tullu pump by households	4	1.0	7	1.7	7	1.9	13	3.3	4	1.0	35	8.7	**70**	**2.9**

Reason for low pressure	Districts													
	Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Less supply of water	3	.8	31	7.7	21	5.6	38	9.5	14	3.5	31	7.7	**138**	**5.8**
Any other	0	0	1	.2	13	3.5	15	3.8	17	4.2	3	0.7	**49**	**2.1**
Not Applicable	356	89.4	318	79.3	290	77.5	305	76.3	297	74.1	279	69.2	**1845**	**77.6**
Total	**398**	**100.0**	**401**	**100.0**	**374**	**100.0**	**400**	**100.0**	**401**	**100.0**	**403**	**100.0**	**2377**	**100.0**

Data collected by Nielson & Analysed by MM

4.1.3.3 Payment of Water Bill

Payment of bill against water supply by the households emerged as grey area in terms of overall findings of the study as 45.9 percent of the households informed that they do not pay any water bill however 54.1 percent of the respondents confirmed payment of water bill.

Table 4.28: Payment of Water Bill

Does household pay for water supply	Districts													
	Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Yes	180	45.2	218	54.4	144	38.5	257	64.3	170	42.4	317	78.7	**1286**	**54.1**
No	218	54.8	183	45.6	230	61.5	143	35.8	231	57.6	86	21.3	**1091**	**45.9**
Total	**398**	**100.0**	**401**	**100.0**	**374**	**100.0**	**400**	**100.0**	**401**	**100.0**	**403**	**100.0**	**2377**	**100.0**

Data collected by Nielson & Analysed by MM

Subsequently, informing about frequency of payment of water bill, 87.6 percent of the respondent's aid that bill is paid on monthly basis followed by 6.8 percent of households paying bills once in two months and 2.3 percent of the households paying water bill on quarterly basis.

Table 4.29: Frequency of Bill Payment

How often bill is paid in a year	Districts													
	Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Monthly	148	82.2	215	98.6	143	99.3	204	79.4	140	82.4	277	87.4	**1127**	**87.6**
6 times a year (bimonthly)	27	15.0	2	0.9	0	0.0	15	5.8	18	10.6	26	8.2	**88**	**6.8**
4 times a year (quarterly)	3	1.7	0	0.0	0	0.0	11	4.3	4	2.4	12	3.8	**30**	**2.3**

How often bill is paid in a year	Districts													
	Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
3 times a year (every 4 months)	0	0.0	1	0.5	0	0.0	19	7.4	1	.6	0	0.0	**21**	**1.6**
Once a year	1	0.6	0	0.0	0	0.0	7	2.7	2	1.2	1	0.3	**11**	**0.9**
More than year	0	0.0	0	0.0	0	0.0	0	0.0	1	.6	1	0.3	**2**	**0.2**
Infrequently	1	0.6	0	0.0	0	0.0	1	0.4	3	1.8	0	0.0	**5**	**0.4**
Do not pay	0	0.0	0	0.0	1	0.7	0	0.0	1	.6	0	0.0	**2**	**0.2**
Total	**180**	**100.0**	**218**	**100.0**	**144**	**100.0**	**257**	**100.0**	**170**	**100.0**	**317**	**100.0**	**1286**	**100.0**

Data collected by Nielson & Analysed by MM

Further, of the respondents covered under the study, 45.8 percent informed of paying water bill in the range of INR 501 to 1000 followed by 22.9 percent paying within INR 1001 to 1500 and 22.2 percent paying equal to or less than INR 500 as water bill.

Table 4.30: Amount paid as water bill (INR)

Amount paid as water bill (INR)	Districts													
	Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
0-500	34	18.9	59	27.1	34	23.6	83	32.3	43	25.3	33	10.4	**286**	**22.2**
501-1000	71	39.4	140	64.2	47	32.6	84	32.7	90	52.9	157	49.5	**589**	**45.8**
1001-1500	68	37.8	17	7.8	59	41.0	84	32.7	32	18.8	35	11.0	**295**	**22.9**
1501-2000	4	2.2	2	0.9	1	0.7	1	0.4	3	1.8	43	13.6	**54**	**4.2**
2001-above	3	1.7	0	0.0	3	2.1	5	1.9	2	1.2	49	15.5	**62**	**4.8**
Total	**180**	**100.0**	**218**	**100.0**	**144**	**100.0**	**257**	**100**	**170**	**100.0**	**317**	**100.0**	**1286**	**100.0**

Data collected by Nielson & Analysed by MM

4.1.4 Community Practices in Water Supply, Sanitation & Solid Waste Management

4.1.4.1 Storage of Drinking Water

Table below shows that 80.9% respondents told that drinking water is stored above ground level and out of reach of household pets and small children. There are no much district wise variations.

Table 4.31: Storing of Drinking Water

Whether drinking water is stored above ground level and out of reach of household pets and small children	Districts													
	Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
stored above ground level but within reach of household pets and small children	40	10.1	52	13.0	59	15.8	62	15.5	85	21.2	37	9.2	**335**	**14.1**
above ground level and out of reach of household pets and small children	323	81.2	338	84.3	301	80.5	321	80.3	302	75.3	337	83.6	**1922**	**80.9**
No	35	8.8	11	2.7	14	3.7	17	4.3	14	3.5	29	7.2	**120**	**5.0**
Total	**398**	**100.0**	**401**	**100.0**	**374**	**100.0**	**400**	**100.0**	**401**	**100.0**	**403**	**100.0**	**2377**	**100.0**

Data collected by Nielson & Analysed by MM

Table below shows that majority of respondents (94 percent) told that their drinking water vessel is kept covered. There are no much district wise variations.

Table 4.32: Whether storage vessel is kept covered

Whether storage vessel is kept covered	Districts													
	Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Yes	354	88.9	396	98.8	364	97.3	375	93.8	388	96.8	358	88.8	**2235**	**94.0**
No	44	11.1	5	1.2	10	2.7	25	6.3	13	3.2	45	11.2	**142**	**6.0**
Total	**398**	**100.0**	**401**	**100.0**	**374**	**100.0**	**400**	**100.0**	**401**	**100.0**	**403**	**100.0**	**2377**	**100.0**

Data collected by Nielson & Analysed by MM

Table below depicts that 28.8 percent respondents pour out water from plastic bottle followed by tilting the vessel (26.3 percent) and use of tap in storage vessel (20.6 percent). Water is retrieves through a long handled ladle in 12.1 percent cases. There are no much district wise variations.

Table 4.33: Way of taking out water from the vessel

Way of taking out water from the vessel	Districts													
	Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Pours water by tilting	140	35.2	67	16.7	37	9.9	235	58.8	87	21.7	59	14.6	625	26.3
Retrieves water through a long handled ladle	47	11.8	63	15.7	10	2.7	55	13.8	61	15.2	51	12.7	287	12.1
Pours out from plastic bottle	87	21.9	154	38.4	169	45.2	67	16.8	96	23.9	112	27.8	685	28.8
Takes water out from tap in storage vessel	69	17.3	101	25.2	107	28.6	26	6.5	74	18.5	113	28.0	490	20.6
Directly from water source	22	5.5	8	2.0	12	3.2	11	2.8	46	11.5	41	10.2	140	5.9
Dips cup/mug inside storage container	33	8.3	8	2.0	39	10.4	6	1.5	37	9.2	27	6.7	150	6.3
Total	**398**	**100.0**	**401**	**100.0**	**374**	**100.0**	**400**	**100.0**	**401**	**100.0**	**403**	**100.0**	**2377**	**100.0**

Data collected by Nielson & Analysed by MM

Table 4.34: Whether soap/ash is available nearby Toilet for Hand wash

Whether soap/ash is available for hand wash	Districts													
	Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Yes	252	79.0	267	96.0	305	86.9	297	90	321	88.9	285	81.0	**1208**	**86.7**
No	67	21.0	11	4.0	46	13.1	33	10	40	11.1	67	19.0	**186**	**13.3**
Total	**319**	**100.0**	**278**	**100.0**	**351**	**100.0**	**330**	**100**	**361**	**100.0**	**352**	**100.0**	**1394**	**100.0**

Data collected by Nielson & Analysed by MM

Table below shows that open defecation is commonly done in case of absence of household toilet. Neighbour's toilet is used by 3.6 percent and only 0.3% use community toilet. The situation is similar in all districts.

Table 4.35: What household members do in absence of household toilet

What do you do in absence of a household toilet	Districts													
	Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Open defecation	79	100.0	117	95.1	21	91.3	66	94.3	39	97.5	49	96.1	**371**	**96.1**
Use neighbour's/relative's toilet	0	0.0	6	4.9	2	8.7	3	4.3	1	2.5	2	3.9	**14**	**3.6**
Use community toilet	0	0.0	0	0.0	0	0.0	1	1.4	0	.0	0	0.0	**1**	**0.3**
Total	**79**	**100.0**	**123**	**100.0**	**23**	**100.0**	**70**	**100.0**	**40**	**100.0**	**51**	**100.0**	**386**	**100.0**

Data collected by Nielson & Analysed by MM

Table below depicts that distance of toilet pit from nearest drinking water source (in meters) is 0 to 15 meters in majority of respondents (72.4 percent) followed by 16 to 30 meters in 17.9 percent respondents.

Table 4.36: Distance of toilet pit from nearest drinking water source (in meters)

Distance of toilet pit from nearest drinking water source (in meters)	Districts													
	Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
0 to 15	260	81.5	190	68.3	259	73.8	151	45.8	282	78.1	300	85.2	**1442**	**72.4**
16 to 30	22	6.9	72	25.9	48	13.7	95	28.8	69	19.1	51	14.5	**357**	**17.9**
31 to 45	5	1.6	12	4.3	15	4.3	11	3.3	4	1.1	1	0.3	**48**	**2.4**
46 to 60	13	4.1	4	1.4	25	7.1	48	14.5	4	1.1	0	0.0	**94**	**4.7**
61 - above	19	6.0	0	.0	4	1.1	25	7.6	2	.6	0	0.0	**50**	**2.5**
Total	**319**	**100.0**	**278**	**100.0**	**351**	**100.0**	**330**	**100.0**	**361**	**100.0**	**352**	**100.0**	**1991**	**100.0**

Data collected by Nielson & Analysed by MM

Table below shows that most favourite place to dispose household garbage is roadside (42.1 percent) followed by outside in house backyard (19.9 percent), agricultural fields (19 percent) and village garbage dump (11.4 percent). No much district wise variations in responses are there on the issue.

Table 4.37: Household garbage disposed in absence of door to door collection

IF not, where is household garbage disposed	Districts													
	Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Outside in house backyard	36	9.1	90	22.7	56	15.1	112	29.3	73	18.4	95	24.9	**462**	**19.9**
Neighbourhood garbage dump	20	5.1	57	14.4	31	8.3	8	2.1	20	5.0	12	3.1	**148**	**6.4**
Village garbage dump	52	13.2	61	15.4	44	11.8	37	9.7	61	15.4	9	2.4	**264**	**11.4**
Agricultural fields	72	18.3	55	13.9	67	18.0	41	10.7	96	24.2	111	29.1	**442**	**19.0**
On the roadside	214	54.3	132	33.2	161	43.3	184	48.2	135	34.0	152	39.8	**978**	**42.1**
Others, Specify	0	0.0	2	0.5	13	3.5	0	.0	12	3.0	3	0.8	**30**	**1.3**
Total	**394**	**100.0**	**397**	**100.0**	**372**	**100.0**	**382**	**100.0**	**397**	**100.0**	**382**	**100.0**	**2324**	**100.0**

Data collected by Nielson & Analysed by MM

Table below shows that garbage dumps are within the village in 41.9 percent whereas it is dumped outside the village in 58.1 percent. District wise variations shows that dumping of garbage within the village is maximum in Sri Muktsar Sahib and minimum in SAS Nagar.

Table 4.38: Are garbage dumps within the village or outside

Are garbage dumps within the village or outside	Districts													
	Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Within the village	132	33.2	246	61.3	150	40.1	246	61.5	141	35.2	80	19.9	**995**	**41.9**
Outside the village	266	66.8	155	38.7	224	59.9	154	38.5	260	64.8	323	80.1	**1382**	**58.1**
Total	**398**	**100.0**	**401**	**100.0**	**374**	**100.0**	**400**	**100.0**	**401**	**100.0**	**403**	**100.0**	**2377**	**100.0**

Data collected by Nielson & Analysed by MM

Table below depicts that majority of respondents (89.8 percent) drain waste water through open surface. According to census 2011 results also, 72 percent rural households in Punjab use open drainage system for disposing liquid waste while 19 percent households don't have access to any kind of drainage system.

Table 4.39: Waste water drainage

Waste water drainage	Districts													
	Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Underground drainage network	30	7.5	6	1.5	24	6.4	17	4.25	18	4.5	4	1.0	**99**	**4.2**
Covered drainage surface drain	2	0.5	1	0.2	35	9.4	17	4.25	1	.2	12	3.0	**68**	**2.9**
Open surface drain	368	92.5	340	84.8	273	73.0	373	93.25	386	96.3	394	97.8	**2134**	**89.8**
No drain	1	0.3	58	14.5	52	13.9	7	1.75	4	1.0	0	0.0	**122**	**5.1**
Total (N) Multiple Response	**398**		**401**		**374**		**400**		**401**		**403**		**2377**	

Data collected by Nielson & Analysed by MM

Table below shows that waste water disposal in majority of cases (50 percent) is done outside the house followed by backyard (19.7 percent). Soak pits are used by 17.2% respondents for disposal of waste water in any of the districts.

Table 4.40: If there is no drainage system, where is wastewater disposed

If there is no drainage system, where is wastewater disposed	Districts													
	Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Outside the house	1	100.00	17	29.3	38	73.08	5	71.4	0	0	0	0	**61**	**50.0**
Backyard	0	0.00	13	22.4	11	21.15	0	0.0	0	0	0	0	**24**	**19.7**
Soak pit	0	0.00	19	32.8	1	1.92	0	0.0	1	25.0	0	0	**21**	**17.2**
Pooled outside the house	0	0.00	8	13.8	1	1.92	2	28.6	0	.0	0	0	**11**	**9.0**

If there is no drainage system, where is wastewater disposed	Districts													
	Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Informal connection to open drains/depressions	0	0.00	1	1.7	1	1.92	0	0.0	3	75.0	0	0	**5**	**4.1**
Total	**1**	**100.00**	**58**	**100.0**	**52**	**100.0**	**7**	**100**	**4**	**100.0**	**0**	**0**	**122**	**100.0**

Data collected by Nielson & Analysed by MM

4.1.4.2 Hand wash Habits among Households

The table below provide information regarding hand wash habits of members of the households. 97.7 percent respondents informed that they wash their hands after defecation followed by 95.7 percent washing their hands before eating and 84.7 percent before cooking. Issues of concerns in hand washing are on “every time after returning home (33.6%)” and “after cleaning small child defecation (62.4%)”.

Table 4.41: Hand wash Habits

When members of household wash hand	Districts													
	Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
After Defecation	394	99.0	383	95.5	370	98.9	398	99.5	379	94.5	398	98.8	**2322**	**97.7**
After cleaning small child defecation	218	54.8	165	41.1	214	57.2	325	81.3	297	74.1	264	65.5	**1483**	**62.4**
Before eating	379	95.2	373	93.0	360	96.3	374	93.5	389	97.0	399	99.0	**2274**	**95.7**
Before cooking	330	82.9	329	82.0	348	93.0	291	72.8	363	90.5	353	87.6	**2014**	**84.7**
Before serving food	276	69.3	239	59.6	293	78.3	252	63.0	322	80.3	338	83.9	**1720**	**72.4**
Every time after returning home	170	42.7	104	25.9	164	43.9	103	25.8	98	24.4	160	39.7	**799**	**33.6**
During bath	192	48.2	123	30.7	216	57.8	130	32.5	140	34.9	182	45.2	**983**	**41.4**
Never	0	0.0	0	0.0	0	0.0	0	0.0	0	.0	0	0.0	**0**	**0.0**
Total (N)	**398**		**401**		**374**		**400**		**401**		**403**		**2377**	

Data collected by Nielson & Analysed by MM

The table below provide information regarding the material being used by the households before eating. 92.6 percent of households informed that they use soap for washing hands before eating.

Table 4.42: Material used for washing hands before eating

What material is used for washing hands before eating	Districts													
	Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Soap	368	92.5	392	97.8	363	97.1	347	86.8	373	93.0	358	88.8	**2201**	**92.6**
Ash	383	96.2	10	2.5	45	12.0	34	8.5	13	3.2	10	2.5	**495**	**20.8**

What material is used for washing hands before eating	Districts													
	Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Sand	38	9.5	2	0.5	46	12.3	35	8.8	25	6.2	31	7.7	**177**	**7.4**
Mud	0	0.0	0	0.0	0	0.0	1	0.3	0	.0	0	0.0	**1**	**0.0**
Only water	82	20.6	4	1.0	8	2.1	62	15.5	83	20.7	138	34.2	**377**	**15.9**
Total (N) Multiple Response	**398**		**401**		**374**		**400**		**401**		**403**		**2377**	

Data collected by Nielson & Analysed by MM

Subsequently, 97.2 percent of households informed that they use soap to wash hands after defecation.

Table 4.43: Material used for washing hands after defecation

What material is used for washing hands after defecation	Districts													
	Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Soap	393	98.7	395	98.5	365	97.6	361	90.3	397	99.0	400	99.3	**2311**	**97.2**
Ash	13	3.3	17	4.2	39	10.4	16	4.0	13	3.2	11	2.7	**109**	**4.6**
Sand	58	14.6	7	1.7	50	13.4	18	4.5	36	9.0	38	9.4	**207**	**8.7**
Mud	0	0.0	0	0.0	0	0.0	0	0.0	0	.0	0	0.0	**0**	**0.0**
Only water	11	2.8	3	0.7	3	0.8	50	12.5	19	4.7	41	10.2	**127**	**5.3**
Total (N) Multiple Response	**398**		**401**		**374**		**400**		**401**		**403**		**2377**	

Data collected by Nielson & Analysed by MM

4.1.5 Community Participation

4.1.5.1 Participation in Village level Meetings

The table below provides information regarding whether any person from the households covered under the study have ever participated in any meeting to decide selection of water supply scheme or source of water. 80.5 percent households informed that they have never participated in such meetings.

Table 4.44: Participation in meetings to decide selection of water supply scheme

Did anyone from household participated in any meetings to decide selection of water supply scheme or source of water	Districts													
	Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Yes	28	7.0	1	.2	26	7.0	19	4.8	24	6.0	31	7.7	**129**	**5.4**
No	293	73.6	349	87.0	297	79.4	281	70.3	350	87.3	344	85.4	**1914**	**80.5**
No response	24	6.0	49	12.2	47	12.6	6	1.5	7	1.7	11	2.7	**144**	**6.1**
Not aware	53	13.3	2	.5	4	1.1	94	23.5	20	5.0	17	4.2	**190**	**8.0**
Total	**398**	**100.0**	**401**	**100.0**	**374**	**100.0**	**400**	**100.0**	**401**	**100.0**	**403**	**100.0**	**2377**	**100.0**

Data collected by Nielson & Analysed by MM

4.1.5.2 Community contribution towards capital cost of existing and new water supply schemes

During the survey the villagers were asked whether money had been raised in the habitation to contribute towards capital costs of the water supply scheme. It was found that in about 8 percent of the habitations (total Punjab), money was raised towards capital costs of the water supply scheme while in 78 percent habitations, no such initiative was reported.

Table 4.45: Money raised in the habitation to contribute towards capital costs of the water supply scheme 1

District	Habitations contribution towards capital cost			NA - no public water supply scheme%			NA - no new public water supply scheme%			Total
	EL (%)	ML (%)	BL (%)	EL (%)	ML (%)	BL (%)	EL (%)	ML (%)	BL (%)	EL (N)
Amritsar	15.0	25	15	10.0	20	55		0	20	20
Hoshiarpur	10.0	10	65		20	110	15.0		15	20
Moga	10.0	5	10	5.0	0	0	20.0	10	5	20
Muktsar	10.0	10	40	5.0	20	35	5.0	5	25	20
Sangrur	10.0	25	5		15	95		0	0	20
SBS Nagar (Nawanshahar)		10	5		25	70	5.0	0	5	20
Punjab	**8.2**	**14**	**20.3**	**7.0**	**13.8**	**15.5**	**7.0**	**4**	**8.3**	**440**

Data collected by Nielson & Analysed by MM

4.1.5.3 Cases of differential contribution per household in case of water supply scheme

The differential contributions reported by the proportion of habitations at the time of baseline (36%) had increased substantially at the time of midline (71%) and increased slightly at the time of End line (72%) (Ref table 1A)

Table 4.2:Cases of differential contribution for contribution towards capital costs of water supply scheme

District	Whether contribution per household was same in case of water supply scheme (ML)								
	EL			ML			BL		
	Same (%)	Not Same (%)	N	Same (%)	Not Same (%)	N	Same (%)	Not Same (%)	N
Amritsar	33.3%	66.7%	3*		100	5*	100	0	3*
Hoshiarpur	50.0%	50.0%	2*	50	50	2*	76.9	23.1	13
Moga	50.0%	50.0%	2*	100		1*	50	50	2*
Muktsar	.0%	100.0%	2*	50	50	2*	25	75	0
Sangrur	50.0%	50.0%	2*	40	60	5*	0	100	5*
SBS Nagar (Nawanshahar)	.0%	.0%	0	50	50	2*	0	100	8*
Punjab	27.8%	72.2%	36	28.6	71.4	56	64.2	35.8	81

Data collected by Nielson & Analysed by MM

4.1.5.4 Contribution by households by socio-economic classifications towards capital cost contribution

During the course of in-depth interviews with the officials and focus group discussion with the community it was reported that the capital costs have been uniformly fixed and mandated by the World Bank across the districts. In backward districts and those bordering international boundary, the contribution of community towards capital cost of water and sanitation work is fixed @ Rs. 400 for general caste households and Rs. 200 for Scheduled caste households. For other districts the rates are Rs. 800/- and Rs 400/- respectively.

During the End line survey, it was reported that in the state of Punjab, on an average, BPL –SC households paid around Rs. 415 and APL-SC households paid Rs 462/- towards capital cost of the water supply scheme. This amount was higher at the time of Baseline amongst the BPL-SC households (Rs. 622/-) and APL SC Households (Rs. 776/-). Similar was the case with other caste BPL Households (Baseline: Rs. 708/719; End line: Rs. 613/-) and other caste APL Households (Baseline: Rs. 903/942; End line: Rs. 686/-). The amount had shown a decline from baseline but had more or less stabilized after Mid line in both the cases.

4.1.6 Transparency

The section below based on limited sample covered during social assessment study on transparency.

4.1.6.1 Source of Information for the Beneficiaries

The table below provides details on community's source of information on the services (Water & Sanitation). As high as 100 percent of the respondents in the Sangrur, Moga and Sri Muktsar Sahib informed that they access information from the Gram panchayat & GPWSC.

Table 4.3: Source of Information for the Households (data in %)

Information Source	Districts					
	Amritsar	Hoshiarpur	Moga	Sri Muktsar Sahib	Sangrur	SAS Nagar
Gram panchayat & GPWSC	90	80	100	100	100	80
DWSS Officials	10	20	0	0	0	20
Total Households (N) Multiple Response	10	15	10	15	10	10

Source: MM Study

4.1.6.2 Communities Media Habit

People generally read Punjabi and Hindi newspaper in the villages. The table below provides details regarding most preferred Punjabi and Hindi newspaper in the region covered.

Table 4.4: Newspapers generally being read (data in %)

Newspaper	Districts					
	Amritsar	Hoshiarpur	Moga	Sri Muktsar Sahib	Sangrur	SAS Nagar
Punjabi Newspaper	Daily Ajit	Daily Ajit	Daily Ajit	Daily Ajit	Daily Ajit	Daily Ajit
Hindi Newspaper	Punjab Kesri	Punjab Kesri	Punjab Kesri	Punjab Kesri	Punjab Kesri	Punjab Kesri
Total Households (N)	10	15	10	15	10	10

The table below provides details regarding main source of information in the villages covered under the study. Television is the most preferred source of information in all the six villages covered. Further, respondents informed that they watch all sort of programmes telecast on television which includes serials, news, sports etc.

Table 4.5: Major Source of Information

Information source (Multiple response)	Districts					
	Amritsar	Hoshiarpur	Moga	Sri Muktsar Sahib	Sangrur	SAS Nagar
Watch TV	100	100	100	100	100	100
Listen radio	40	60	60	60	60	20
Read Newspaper	50	60	60	60	60	0
Total Households (N)	10	15	10	15	10	10

Source: MM Study

According to the Census 2011 results, majority of the population in these six districts have television set in their households. The percentage is highest for the Hoshiarpur and SAS Nagar Districts i.e. 86.7 percent followed by Amritsar i.e. 86.1 percent.

4.1.7 Conclusion

Beneficiary Assessment: A total of 2377 households were contacted during the study in different Gram Panchayats of the sampled districts of Amritsar, Hoshiarpur, Moga, Sri Muktsar Sahib, Sangrur and SAS Nagar. Following are the main findings of primary research conducted. Also the focus group discussions (FGDs) were carried out in six gram panchayats from six districts covered to carry out the study (one from each district).

Water Availability around 87 percent beneficiaries get water on daily basis and 65.4 percent gets two times in a day. Majority of the households (97.6 percent) get water supply for equal to or less than 5 hours. Subsequently, 79.2 percent beneficiaries found reliable timings of water supply. Around 91.4 percent beneficiaries responded positive about time suitability. PRA exercise results show that water accessibility to community places like *Gurudwaras* and schools are provided water supply free of cost which could be considered as a positive steps from the community point of view. We have referred to the baseline survey/study (carried out in 2009) of the same project and other available secondary data such as census 2011 to set benchmark for the present study. The rationale was to take stock of progress made so far in terms of improving access to water supply and sanitation facilities for rural households in Punjab. The findings of secondary data have been discussed above.

All SC habitations were not found covered with functional piped water supply schemes this is creating an issue of inclusion. Further, flat rate billing has been reported in the visited habitations which is in any case subsidizing the rich who are using more water in comparison to poor.

Reliability of the water sources was observed by 76.5 percent beneficiaries. Timing of water supply fluctuates more than 55 percent in summers whereas 26.1 percent told it has on & off situation throughout the year. Adequacy of water was realised by 78.9 percent of beneficiaries.

Water Use for Drinking Purpose is done by majority (85.3 percent) of beneficiaries from existing source. They do not purify the water (84.3 percent). Same Water is utilised for all major activities of the households.

Quality of Water from the existing water sources is found good by 58.9 percent beneficiaries. However, 24.7 percent beneficiaries told about unacceptable taste, 10 percent beneficiaries told about unacceptable smell and 17.5 percent beneficiaries told about drinking water are not clear.

Consumption of water is around 50 litters per person per day with a variation of requirements from 41 to 62 litters per person per day.

Payment of bill against water supply by the households emerged as grey area as 45.9 percent households informed that they do not pay any water bill. Out of the 54 percent beneficiaries around 87.6

percent pay bills on monthly basis. During field visit it was observed that GPWSC fixes the monthly tariff for water supply and also collects the monthly bills from the beneficiary households.

Of the total households covered 83.8 percent informed of having toilets within their premises out of which 98.6 percent are functional toilets. Similar observations are made during PRA.

Open defecation is commonly done in case of absence of household toilet.

Waste Water Drainage shows that majority of respondents (89.8 percent) drain waste water through open surface. Where there is no drainage system waste water disposed outside the house by 50 percent cases followed by 19.7 percent cases in backyard.

Garbage Collection shows that door to door garbage collection is not a common phenomenon in 97.8 percent cases. Similar trend has been observed during PRA.

Garbage Disposed shows that most favourite place to dispose household garbage is roadside (42.1 percent) followed by outside in house backyard (19.9 percent), agricultural fields (19 percent) and village garbage dump (11.4 percent). Garbage dumped outside the village are in 58.1 percent and within the village are in 41.9 percent cases.

Hand Washing Practices of Beneficiaries shows that 98 percent respondents informed that they wash their hands after defecation and followed by 95.7 percent washing their hands before eating. Subsequently, 97.2 percent of households informed that they use soap to wash hands after defecation. Similar observations are made during PRA.

Participation: Community participation in decision making was limited as about 81% beneficiaries told that they have never participated in any meeting to decide selection of water supply scheme or source of water. Further, participation of SC and women is found negligible. Moreover, awareness level of community on Water & Sanitation issues was found limited on, water quality, health & hygiene etc.

Transparency: Community was not found aware about the ongoing schemes indicating limited Transparency

Accountability: Accountability of GPWSCs was found an issue in slipped back habitations and this is also impacting the O&M of the ongoing schemes. Accountability of service provider was found an issue since community was not very happy with the level of services.

4.2 Stakeholder Analysis

Stakeholder Analyses has been carried out in six sampled districts (Amritsar, Hoshiarpur, Moga, Muktsar, Sangrur, SBS Nagar) to identify key stakeholders and their subgroups at different levels of implementation. During primary research 2377 households interactions (with 1918 female and 459 male) were undertaken, in addition six participatory rural appraisals including detailed focus group discussion with separate male and female groups, in this exercise another 132 people (72 female and 60 male) from the community were

contacted. Of the contacted households, 1110 belonged to Schedule caste and another 323 to other backward class. In addition respective DWSS officials at different level of implementation, GPWSC members, Panchayat members were also consulted.

The contacted stakeholders are basically direct and indirect beneficiaries of the project. An effort was also made to understand stakeholder's expectations, impacts, issues and concerns related water & sanitation. As identified from preliminary research undertaken during social assessment, the key or direct stakeholders and their domains of concern are as listed:

- Scheme beneficiaries being partners in the development and management – water supply, usage and its management
- Panchayat officials particularly GP functionaries and GPWSC members being entrusted to hold the projects and to handle O&M,
- GPWSC should take responsibility of collection of user charges from users of the scheme and manage the scheme level O& M operations independently and sustainably.
- DWSS being the primary implementation agency
- Women are household water managers, responsible for their family health
- ICDS & Health Personnel like ICDS workers, ANM & ASHA are the co-actors in mitigating the issue of ill health resulting from water and sanitation inadequacies
- Few indirect stakeholders like School teachers and PRIs are the partners influencing water & sanitation schemes at village level

The stakeholder analysis helped to gauge stakeholder's expectations along with issues and concerns. An overview of the stakeholder feedback has been presented below.

Table 4.6: Stakeholder Analysis

Stakeholders	Impact Direct/ Indirect	Feedback during Social Assessment on current Status	Understanding of Sector Program	Expectations from the Project	Perceived role in the Project	Key Issues
Village Level						
Scheme Beneficiaries	Direct	• Use of drinking water from pipe water scheme for individual household connection • Paying water charges regularly • Piped water is available for average 2 hours daily, adequate water supply except summer • Water supply is not adequate	• They know about the sector program but have less information about sewer system part of the program • Water scarcity during summer needs immediate attention	• Uninterrupted service • Availability in adequate quantity	• 100% Sewer Connection • Regular payment of user charges • Their involvement for sustainable operation & management of infrastructures to be constructed under the project •	• No negative impact • Inadequate awareness on sewer program •

Stakeholders	Impact Direct/ Indirect	Feedback during Social Assessment on current Status	Understanding of Sector Program	Expectations from the Project	Perceived role in the Project	Key Issues
		during summer as the problem increases due to frequent power cuts • Community faces problem in water supply due to erratic power supply • Community reported of receiving water twice a day • They generally practice safe handling of drinking water • Pressure of water is good				
GP Functionaries	Direct	• Highly motivated body can do better if involved by capacity building	• They know about the sector program but have less information about sewerage system of the program	• Need water for longer duration and uninterrupted services	• Supporting activities of GPWSC	• No negative impact • They need to be provided with all relevant information for further communicatio n
GPWSC / GPWSC Members	Direct	• They exist in the visited panchayats and are working as a subcommittee of panchayat • They are responsible for operation and maintenance • Many a times they face problem in maintenance due to untimely receipt of user fees • Ensures 33% participation of women	• They know about the sector program but have less information about sewerage system of the program	• Need water for longer duration and uninterrupted services • Need competencies like maintenance of records of minutes of meetings, maintenance of bank accounts, users management skills etc.	• Leading the operation and maintenance of infrastructure to be constructed under the project •	• No negative impact • They are ready to support the project and will provide land wherever required. • They are not competent to handle major maintenance hence, need support from the Department. Also, needs technical training. • They need

Stakeholders	Impact Direct/ Indirect	Feedback during Social Assessment on current Status	Understanding of Sector Program	Expectations from the Project	Perceived role in the Project	Key Issues
		• They are not competent to handle major maintenance hence, needs support from the Department. Needs technical training.				soft skill training and training on bookkeeping, accounting etc.
Other grass root level workers including Health, ASHA, ANM, Teachers, AWWs	Indirect	• They are the integral partner of the program and successfully involved in spreading awareness on water & sanitation related issues. • They need to be trained considering the recent issues of water quality in the State	• They know about the sector program but have no information about sewerage part of the program	• Need water for longer duration and uninterrupted services •	• They have capacity to lead grass root level awareness generation and capacity building	• No negative impact • They are involved in awareness generation at grass root level. However, some gap in their capacity was identified •
Women	Direct	• Paying water charges regularly • Water is a basic necessity for all more importantly women as they are primary users, providers and managers of water in their households and are the guardians of household hygiene and health related issues • Interested in safe drinking water and proper	• They know about the sector program but have no information about sewerage part of the program • They are not aware of issues related to unsafe water and improper sanitation • Young generation is literate but in general they are less empowered than their	• Expect good quality water for domestic purposes and also for cattle purposes • Expect regular water supply with scheduled timings and reasonable durations	• Can play bigger role in management of infrastructure related to water & sanitation	• No negative impact • Inadequate awareness on sewer program • Need to be empowered to take decisions

Stakeholders	Impact Direct/ Indirect	Feedback during Social Assessment on current Status	Understanding of Sector Program	Expectations from the Project	Perceived role in the Project	Key Issues
		sanitation however, not aware of issues related to unsafe water and improper sanitation	male counterparts • Women do not have much say in their families leave alone their participation in the public meetings. • For taking any decision they are dependent on the male members of the family.			
Panchayat and Rural Development Department	Indirect	• Immediate need to construct toilets in about 19.7 percent of the households (Source: census 2011) in the State. • May need to expedite convergence of NBA with MGNREGA for construction of toilets	• They know about the sector program but have limited of information about sewerage part of the program • 100% households will need to have toilets to be connected to sewer system	• Need water for longer duration and uninterrupted services •	• They have the capacity to lead sector program at grass root level provided they are further strengthened on convergence issues	• No negative impact • They are involved on awareness generation at grass root level. • They are ready to support the project and will provide land wherever required.
• **Block Level**						•
Block Resource Coordinators (BRC)	Direct	• These are grass root level institutions involved in effective implementation of all activities related to Water and Sanitation and are directly connected with the Gram Panchayats, Village Water	• They understand the program completely • Require orientation on Public Health issues	• 100% households to have toilets • 100% households to be connected with sewer	• They have huge potential if they are properly staffed and oriented towards service delivery •	• No negative impact • They are ready to build technical capacity of GPWSCs

Stakeholders	Impact Direct/ Indirect	Feedback during Social Assessment on current Status	Understanding of Sector Program	Expectations from the Project	Perceived role in the Project	Key Issues
		and Sanitation Committees. • However they are non-functional due to inadequate availability of manpower				
• **District level**						
District Water & Sanitation Committee	Direct	• District level agency for implementation of NRDWP • Technically competent group has initial orientation on demand driven approaches. • Supported by DPMC and its resources- specifically resource persons with expertise in social mobilization, IEC/ HRD. • Implementation of activities is done by the Junior Engineer, they require to be oriented on social mobilisation aspect	• They understand the program completely • Require orientation on Public Health issues	• 100% households to have toilets • 100% households to be connected with sewer	• They are leading sector program and they could be they are further strengthened on convergence aspects	• No negative impact • They are ready to build technical capacity of GPWSCs
District Program management Cell	Direct	• District level agency providing facilitation support for implementation of NRDWP & NBA • Technically competent group which is	• They understand the program completely • Requires orientation on Public Health issues	• 100% households to have toilets • 100% households to be connected with sewer	• They are leading sector program they could be they could be further strengthened on convergence matters	• No negative impact • They are ready to build technical capacity of GPWSCs

Stakeholders	Impact Direct/ Indirect	Feedback during Social Assessment on current Status	Understanding of Sector Program	Expectations from the Project	Perceived role in the Project	Key Issues
		oriented on demand driven approaches. • Slightly less staffed hence, facing issues				
• **State level**						
State Program Management Cell	Direct	• Facilitation wing for programme implementation • Highly competent group for project delivery • Implementation of M&E system • Undertakes IEC and capacity building to ensure that people will take care of the maintenance	• They understand the program completely •	• Sustainable implementation and maintenance of created infrastructure	• They are leading sector program they could be they are further strengthened on convergence issues	• No negative impact • They are ready to build technical capacity of GPWSCs but may require engaging social Mobilisers for delivery services.
State Water and Sanitation Mission	Direct	• Nodal agency for implementation of total NBA & NRDWP in the state of Punjab. • Technically competent group for project delivery • Less staffed but putting a lot of effort in motivating community for participation through convergence	• They understand the program completely •	• Sustainable implementation and maintenance of created infrastructure	• They are leading sector program they could be they are further strengthened on convergence	• They are handling major maintenance since GPWSCs are not strengthened • Accountability of operation and maintenance to be vested on GPs •

Source: MM Study

4.3 Key Strengths and Weaknesses of Rural Water Supply and Sanitation in Punjab

4.3.1 Key Strengths

- Effective participation of users in developing, operating and maintaining water supply services and to empower them to manage their own water supply & sanitation services.
- Improvement in the quality of life and environment through the effective and efficient management of water services.
- Providing adequate water to all users, ensuring the safety and security of water service systems and facilitating long-term financial self-sustainability among water service operators.
- Decentralized management of rural water supply and sanitation schemes.

4.3.2 Key weaknesses

- Limited / non-participation of Women
- Lack of institutions and adequate staff at Block level
- Existence of unmetered water connections
- Human Resource gap, posts are lying vacant at different level

4.3.3 Key opportunities

- Ensuring expansion of the organization and timely completion of projects
- Considering users as customers
- Have to come out of the vision of being service providers
- Building of soft skills so that they could implement participatory development models
- Strengthen coordination with related departments like health, education social welfare.
- Training of GPWSC members on different aspects (hard and soft components)
- Different line departments are extending support through convergence of programmes and this aspect need to be explored in a big way.

4.3.4 Key Threats

- Delay in project delivery
- Desired Community empowerment and participation may not be achieved
- Political pressure
- Issues related to Non-Convergence of programmes of various line departments

4.4 Conclusion Based on Stakeholder Analyses

4.4.1 Community is Concerned about Current status of Water Supply and Sanitation

During consultation process it was observed that community is highly concerned about Current status of Water Supply and Sanitation. Community need water for longer duration and uninterrupted services.

Community has stressed on the solutions for the water scarcity during summer. Community faces problem in water supply due to erratic power supply. They even know about the sector program but have less information about sewer system part of the program. Further, they are slightly distressed due to water scarcity during summer and expects better water supply.

4.4.2 Communities dissatisfaction with current level of water & sanitation services

The study clearly spells out that community is not satisfied with the level and quality of sanitation services being offered and they are even ready to pay more, provided they receive better services.

In order to achieve community satisfaction State Program Management Cell needs to implementation of M&E system properly. There is a need to undertake IEC and capacity building to ensure people's ownership for maintenance and sustainability. They may require engaging social mobilisers for improving capacity of beneficiaries and committee members.

4.4.3 Select Community including women has low level of awareness

Analysis of the data reveals that poor, marginalised community and women stakeholders have limited knowledge of sector program including importance of connecting house to the sewer network. They need to be persuaded and additional strategy could be adopted for mobilising them. The poor households not having toilets may also require special assistance initially for getting a toilet constructed in their houses and then for taking sewer connection. Similarly for mobilising women it is important that they are identified, approached, motivated and nurtured in regular frequency. For 100% inclusion Panchayat and Rural Development Department need to expedite convergence of NBA with MGNREGA for construction of toilets as about 24.8 percent of the households still do not have toilets (Source: NBA Survey data 2012) in the State.

4.4.4 Non receipt of user changes

Many a times GPWSC/ GPWSC Members face problem in maintenance of water supply schemes due to untimely receipt of user fees. This can be minimised through community mobilisation and capacity building of existing GPWSC members on management related issues.

Despite the shortage of human resources, efforts of State Water and Sanitation Mission are appreciated in motivating community for participation through convergence. They are handling major maintenance since GPWSCs still require strengthening on specific issues; they also need to be more accountable for the services related to operations and maintenance. During stakeholder analysis interactions were made at each level, the Capacity Building needs identified during the exercise is detailed below.

Table 4.7: Training Needs as per Identified Stakeholders

Stakeholders to be Trained	Training Needs on Topic
Junior Engineers	Require orientation on Social Mobilisation Aspects and Strengthening of Convergence Aspects

Stakeholders to be Trained	Training Needs on Topic
Social Mobilisers (SM) **,** GPWSC & Panchayat Members, Junior Engineers, District Water & Sanitation Committee/ District Program Management Cell	Require orientation on Public Health issues
Some GPWSC & Panchayat Members	Basic Technical & Maintenance Training
GPWSC & Panchayat Members	Competencies Trainings on maintenance of records, writing meeting minutes, maintenance of bank accounts, users management skills, soft skills, bookkeeping, accounting, etc.
Beneficiaries, Gram Panchayats, GPWSC Members, Panchayat Members, Women, Other grass root level workers including Health, ASHA, ANM, Teachers, and AWWs	Awareness Generation on Sewerage System of the program
Social Mobilisers (SM) **,** GPWSC & Panchayat Members, Junior Engineers, District Water & Sanitation Committee/ District Program Management Cell	Awareness on the issues related to unsafe water and improper sanitation
Women, Other grass root level workers including Health, ASHA, ANM, Teachers, and AWWs	Awareness on the issues related to water quality
Young & literate generation of women as can play bigger role in management of infrastructure related to water & sanitation	Women Empowerment Training regarding water and sanitation
Other grass root level workers including Health, ASHA, ANM, Teachers, AWWs	Refresher Training on Awareness Generation for Grass Root level Change Agents

Source: MM Study

5 Institutional Analysis

The institutional arrangement for accomplishing implementation of the Water & Sanitation activities has been analysed. It was observed that activities under sector wide approach (SWAp) have been implemented through different level of committees formed at different levels of implementation. The State and district level water and sanitation missions set up under the GoI's Swajaldhara program were reconstituted and their mandate was expanded to cover management of entire term programs (Medium & Long term). A multi-tier institutional system has been conceived for handling sector wide approach in Punjab.

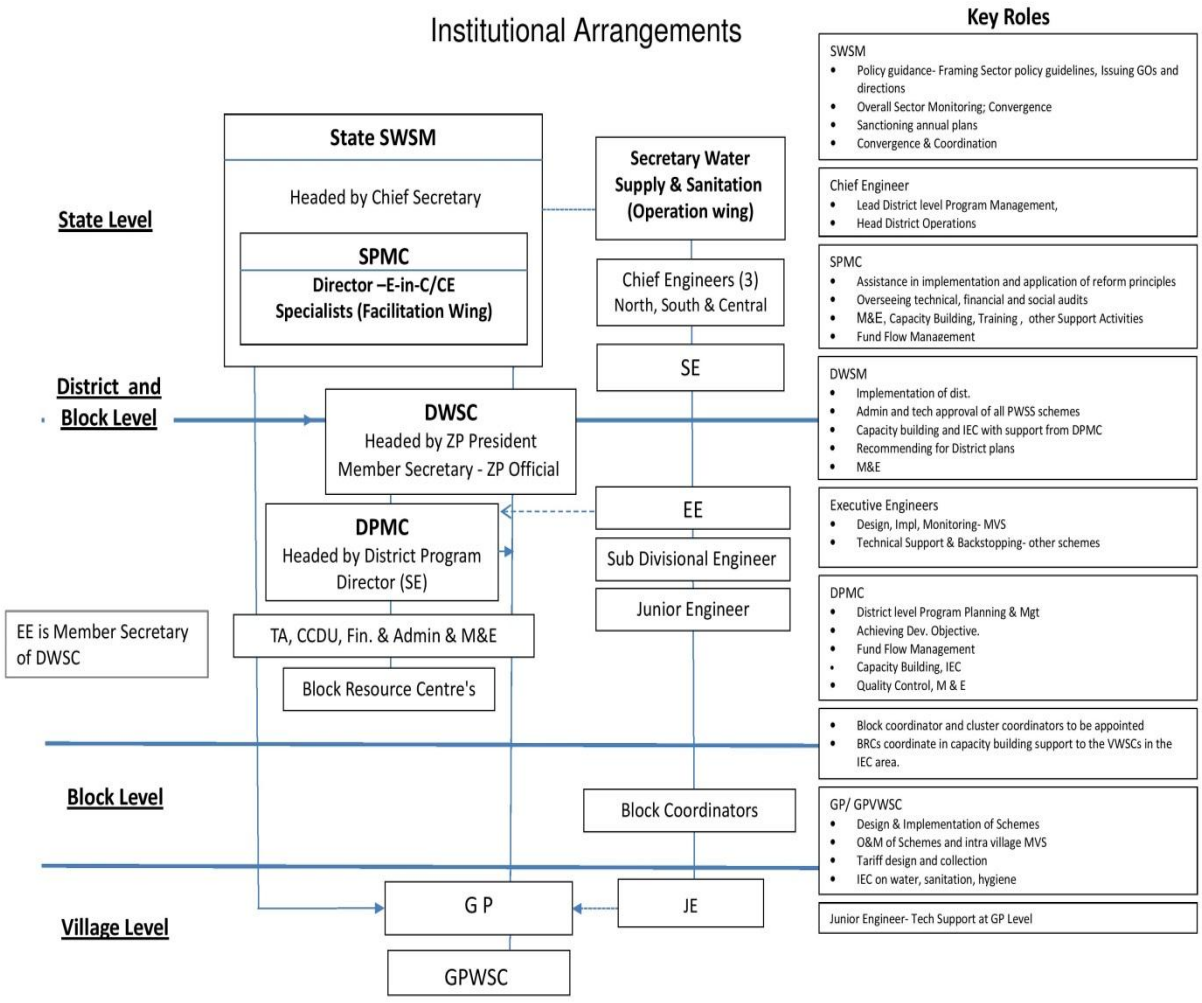
5.1 State level

5.1.1 State Water and Sanitation Mission (SWSM)

The **State Water and Sanitation Mission (SWSM)** is the highest policy making body that is available at State level under Department of Water Supply & Sanitation of Government of Punjab. It is chaired by the Chief Secretary and Administrative Secretary of DWSS being the Member Secretary. The other members of the Mission include: a representative of the Department of Drinking Water, Ministry of Rural Development, GoI; Secretaries of other relevant GoP Departments and three sector experts. The objectives of the Department of Water Supply and Sanitation, Punjab are:

- To provide potable drinking water to the rural population in the villages in Punjab with special emphasis on rural schools.
- To provide environmental hygiene and proper sanitation facilities in the villages in rural areas with special emphasis on rural school.
- To create awareness about Water Borne Diseases and health hazards caused due to lack of Sanitation, thus improving the health of the people.
- To operate and maintain all village water supply schemes and ultimately hand over the single village scheme to Panchayats for operation and maintenance or in other words to develop an inbuilt system within the villages so that the Water
- Supply & Sanitation facilities once provided are maintained properly without any external support.
- To educate and impart guidance to public regarding use of potable drinking water.

Figure 5.1: Institutions Arrangement in Punjab



Source: As provided by GoP

The State Project Management Cell & District Project Management Cells are the new structures created by redeployment and reorganizing some of the existing Divisions of DWSS to continue to function. These are integral part of the DWSS's current governmental set up and are not parallel structures.

5.1.2 Punjab State Programme Management Cell

The **State Program Management Cell (SPMC**) is set up within DWSS under the leadership of Administrative Secretary with an exclusive mandate to provide state-wide leadership, collaboration and

management of RWSS sector reform in Punjab. Its main functions are: overall program planning and management to ensure Program development objectives are fully achieved within the stipulated time. They also support the program through the management of sector funds, capacity building of all program partners, managing state-wide IEC campaigns, ensure appropriate community empowerment and participatory framework, guidelines for procurement practices and high quality of engineering designs and construction, and systemic monitoring and evaluation of sector performance. They are also responsible for regular review of strategies and implementation progress and for ensuring course corrections as and when needed.

The SPMC is headed by a Program Director. SPMC has multi-disciplinary staff comprising of finance, operations, HRD, M&E, water supply and sanitation engineering, procurement and communications disciplines. Most of the engineering staff has been posted from other DWSS offices. There are 32 vacant positions against the 85 sanctioned positions in total at State Program Management Cell (table provided as appendix E). Of the available posts various posts are lying vacant at State level offices including IEC Specialist, Sr. HRD Specialist, Communication Specialist, Network Administrator and IT Specialist is critical for establishing participatory approaches and sustainability of the project hence, it is suggested that these posts are filled in immediately keeping qualification required for the posts into considerations.

5.2 District & Divisional level

5.2.1 District Water and Sanitation Committee

The **District Water and Sanitation Committee** (DWSC): is counter part of SWSM at the district level, chaired by Chairman of the Zilla Parishad and the Superintending Engineer of DPMC being the member secretary. Its other members are Deputy Commissioner (or his representative), heads of other departments in the district, representative of NGOs and 4 sector experts.

A total of 110 DWSM consultants are required but only 90 DWSM consultants have been appointed

5.2.2 District Program Management Cell

District Program management Cell (DPMC): is being set up within the DWSS in each district. The DPMCs are headed by a Superintending Engineer (SE) of the DWSS. The DPMCs has a mandate, composition and functions similar to SPMC. Apart from policy and approval of district plans (which are done by SWSM) they also function when there is some intra district activities. DMPCs are responsible for transfer of investment funds to implementing agencies – viz the Gram Panchayat (GPs) / Gram Panchayat Water & Sanitation Committees (GPWSCs). DPMC are also responsible for progress reporting to SPMC.

Interactions with DPMC professionals at different levels indicate that they have a mix of professionals from different relevant sectors and have sufficient technical knowhow for handling the technical aspects as well as establishing Community Driven Development approach for planning, implementation and management of schemes. However, since they are less staffed as many posts are lying vacant, they are not able to extend regular support to the gram panchayat.(table provided as appendix E).

The Division is actually the unit of implementation and headed by Divisional Engineer, each and every plan including Detailed Project Reports are compiled at the divisional level. However, this level has no social development expert placed to support inclusion and community mobilisation. This could be a reason for limited community participation, inclusion etc.

5.3 Block Level - Block Resource Coordinators (BRC)

As such there is no setup at block level. However, Block Resource Coordinators are placed at the block level on contractual basis called the block coordinator (they report to the Assistant Engineer, DDWC) and the block coordinator ensures implementation of NRDWP and expansion of the Nirmal Bharat Abhiyan (NBA) and timely completion of projects/ schemes. However, Block Coordinators are placed only in 142 blocks out of 284 blocks.

The Block Coordinator is responsible for all day to day activities of the programme. She/He is responsible for process implementation, provide guidance for preparation of GP plans, collection, & collation of information, monitor progress of implementation, and verify the construction of IHLs, Schools, and Anganwadis.

5.4 Gram Panchayat Level

The implementation and service delivery responsibility is being taken up by the DWSS's existing organizational structure (Operations wing) and the GPWSCs. At village level, GPWSC has been set up as a committee of the GP and they are the key drivers of community empowerment.

Gram Panchayats are responsible for seeking project assistance following a self-selection process; they constitute GPWSCs with representation form user's community. GP is also responsible for empowering GPWSCs so that they can take up responsibility for program implementation on its behalf. GPs are also responsible to monitor the sustainability of scheme operations during post implementation. They also ensure that GPWSCs are satisfactorily discharging their O&M management function including levying and collecting user charges from beneficiaries. For Multi Village schemes, GP is responsible for payment of bulk water charges to DWSS.

Gram Panchayat Water & Sanitation Committees (GPWSCs): Under the current operation, GPWSCs were constituted under Section 25 of the Punjab Panchayati Raj Act, 1994, that provides for constitution of a "Amenities Committee" to carry out public health, public works and such other functions of the Gram Panchayat. Thus, the GPVWSC enjoyed legal status, and the Govt. of Punjab issued the notification and bye-laws, to operationalize the sub-committee.

As mentioned above, they are represented by the user groups and represent each community. The major functions are listed below;

- Planning for the water supply and sanitation related investments in the village
- Selecting cost effective and feasible technology and schemes
- Approval of schemes and tenders up to Rs. 30 Lakh in respect of Single Village schemes.
- Mobilising community contributions

- Construction and operation and maintenance of Single Village schemes, small Multi Village schemes; and intra-village components of Multi Village schemes including inviting bids, awarding contracts, contract management, etc.
- Management of programme funds for programme execution
- Maintaining books of accounts
- Deciding on the O&M arrangements either through engaging own staff or contracting out to private contractors.
- Levying user charges and full financing of O&M expenditure
- Maintaining transparency and cost effectiveness in all transactions
- Ensuring inclusion of all sections of the village community in programme activities and equitable distribution of benefits.

GPWSC is a standing committee of the Gram Panchayat and working as subcommittee; the elected head of the GP, viz. the Sarpanch is the ex-officio chairperson of the GPVWSC, they are represented by each community groups and number of members per group varies from 11 to 21 depending upon the size of the GP. GPWSC has 11 members when the population of GP is 1500, GPWSC has 15 members when the population of GP is 1500 to 3000 and GPWSC has 21 members when the population of GP is more than 3000.

Table 5.1 Criteria for Members in GPWSC

Number of Members of GPWSCs	Population of GP
11	1500
15	1501 to 3000
21	More than 3000

The members of GPWSCs are as follows:

- Head of gram panchayat is chairman of GPWSC
- Three members of gram panchayat are members of GPWSC of which one women, another two are Schedule Cast (SC) and General.
- Junior Engineer is technical member and convener of the GPWSC
- Remaining members of GPWSCs are directly selected from Gram Sabha, of which,
  - ❖ one third are women
  - ❖ One-fifth from SC and backward class
  - ❖ one third are from BPL and land less
  - ❖ One third members should be literate
  - ❖ GPWSC is equally represented by the each section of the society

Members of GPWSCs are replaced one in each 2 years, Gram Sabha is taking part in electing members of GPWSC. Beyond project-related roles and responsibilities, the GPWSCs are empowered to carry out a number of general functions in relation to water and sanitation, interface with relevant schemes and departments. The committee is also empowered to manage all solid and liquid wastes in the village. The role of the GPWSC in the project (planning, implementation and O&M phases included) is formalized by signing a Memorandum of Understanding between parties (e.g. the GPWSC and the DWSS).

5.4.1 Women participation GPWSC

GPWSC is representing Gram Sabha, during interactions at village levels during the PRAs conducted, it was reported that both adult male and female are members of Gram Sabha and are taking part in electing members of GPWSC. It was found that adequate women representation (1/3 of the total members of GPWSC) is followed in all the contacted panchayats.

However, during interactions with women members it was sensed that women are included in the GPWSC as member but their role and responsibilities in subproject management, fees collection and community mobilisation is yet to be translated into action. Targeting women for training and capacity building is critical to the sustainability of water and sanitation initiatives as this would lead to decision making process as currently women are not in a position to take decisions.

5.4.2 Development Partners

GoP's vision and long term strategy aims to cover all villages in Punjab with 100 % water supply coverage with higher service standards and private service connections to most households as well as providing modern underground waste water collection and disposal systems. The vision can only be completed if they work in complete convergence with Panchyati Raj Institutions (PRIs), Rural Development Department, Health & Family Welfare Department, Department of School, Department of Social Welfare etc and also encourage bilateral and multilateral partners. It is encouraging to report that GoP has gone ahead with this vision and has been able to establish initial convergence at grass root level

These development partners are working in the rural Punjab in areas of livelihood, health issues, capacity building/skill development, and also providing policy level as well as technical support to various Government agencies, some of which are listed below:

5.4.2.1 World Bank

World Bank has supported the Rural Water Supply and Sanitation Project.

The scope of work in the project finalized by World Bank after assessing the status of completed and on-going rural water supply schemes and new projects sanctioned by NABARD etc. was coverage of 739 Not Covered (NC) villages and 2422 Partially Covered (PC) villages at a cost of 1280 crores. The scope of work of this project is as under:

- Service improvement of existing water supply schemes in 223 villages
- Implementation of sewerage schemes in 100 villages on pilot basis along with rejuvenation of village ponds
- Metering of water supply schemes in 6 villages on pilot basis.
- Up-gradation of 3 water testing laboratories.

The project comprises of three components namely, Programme Management, Community Development and Infrastructure Building.

5.4.2.2 IDA finance -Punjab Rural Water supply and Sanitation

1240 villages have been covered under IDA SWAP programme up-to February 2014, against the coverage target of 1200 villages under the PRWSS project. Villages being covered with IDA finance have a high percentage of private connections. 100% houses have been covered with water supply connections in 295 villages, 70-99% connections have been provided in 541 villages and in 404 villages where no. of connections are less than 70%. IEC and HRD specialists posted in DPMCs are making efforts to increase the number of water connections by creating awareness and conducting capacity building trainings of GPWSCs. The state has made substantial progress in installation of reverse osmosis plants for drinking water by installing them in 1811 villages.

Community sanitation scheme implementation has commenced in 98 villages against the target of 100 villages. Due to non-availability of land for sewage treatment plant two villages selected for sewerage have been dropped.

5.5 Reasons for Changes required at Institutional Structural Level/ Reasons behind Recommendation of Structural Changes at Institutions

Some of the results correlating the importance of having changes at institutional structural level for improving the stocks of social development are as follows:

Demographic evidences of Punjab shows 29% percent of Schedule Caste, 2.4% of physically challenged, 3.4% of minorities (Muslim 2%, Christians - 1.20% and Jains - 0.16%) in population composition. Further, BPL constitutes 8.26% of the total Population.

Females constitute over 47.2 % of the total population. Analysis of the secondary data showing declining sex ratio, less participation in economic activities, little representation in political decision-making etc. are the attributes of poor status of women in Punjab. Young generation of women is literate but in general they are less empowered than their male counterparts. For taking any decision they are dependent on the male members of the family. Focused Group Discussions depicts that though GPWSC ensures 33% of women participation yet they are not aware of operation & maintenance related issues. Poor land ownership, violence against women, poor awareness on water quality, selection of scheme, maintenance of records, operational issues, etc. are some of the reflective/ confirming indicators of her poor status in society. Social Development Unit can take account on gender issues in water and sanitation.

Institutional Support: it could be seen from above analysis that posts of IEC Specialist, Sr. HRD Specialist, Communication Specialist, Network Administrator and IT Specialist is critical for establishing participatory approaches and sustainability of the project and in many cases they are either vacant or not even created. There is no dedicated institutional structure looking after social development at the divisional level which is the most critical level as all basic planning and implementation happens at this stage. During interactions it was with the implementation level staff, it was noted that they are regularly interacting with the community for project delivery, and hence they should be made aware of the dynamic project needs and their softer skills would need augmentation for better service delivery.

Social Inclusion is a concern as even after a good coverage of the scheme, some of the Scheduled Caste households do not have piped water connections. Also, most of the SC households in the village do not have toilets in their houses. Non availability of toilets in 30% of household due to this or that reason needs social inclusion. Social Development Unit can focus on the concerns of social inclusions.

Community Empowerment and Participation in the form of membership, getting drinking water, making monthly payments, etc. is ensured. Community participation for sustainability is still a concern as community preparedness on open drainage, Garbage collection & waste water disposal, peoples' involvement in grievance redressal, technical & accounts' maintenance of the system at GPWSC, community's capacity building, overall ownership, etc. are some of the identified gaps. Community Driven Development approach for planning, implementation and management of schemes can only be achieved if empowered community takes the ownership of the project and PRWSS has to take proactive role for the implementation of qualitative dimension of the project. Institutional Mechanism needs to address the concern.

Social Development Unit need to be established for enhancing **People's Poor Awareness** on water quality aspects, use water for drinking without filtration rural people suffering from water born disease, etc. as the outcome of focussed group discussion shows that desired level of IEC is yet not achieved to deal with the changing conditions of availability of piped water and toilets in villages and otherwise too.

Management of Increasing Demands/ Expectations like need of more water, timely water, regular power supply required for water supply, need of alternative mechanism of generator for water supply, etc. can be managed only through improving ownership of the project, community empowerment and involvement through Social Development.

State needs to take a call on the **vacant positions** that have impact on social development like Posts of IEC Specialist & Communication Specialist are vacant at State level. Posts of Social Development Specialist & Sustainability Assessment Specialist are filled at State level but social development has a long way to go. More than 50% IEC Specialist positions at district level are vacant. As per Focussed Group Discussion, people rely for their knowledge enhancement for safe drinking water on newspapers and TV advertisements.

There is **requirement of structured organization office at block level** as it can work as the closest/ nearest unit to community. Block Resource Centers which is nonfunctional currently is to be made functional and Block coordinator and cluster coordinators should be appointed. BRCs will coordinate in providing necessary capacity building support to the GPWSCs particularly in the IEC area.

5.5.1 Proposed Institutional Structure Social Development Unit

Punjab has close to 29% percent of Schedule Caste, female population constitute over 47.2 % of the total population , 2.4% of physically challenged, 3.4 of minorities (Muslim 2%, Christians - 1.20% and Jains -

0.16%). Further, BPL constitutes 8.26% of the total Population. The social assessment carried out for the project indicates a requirement of social development because there are issues like limited inclusion and equity, participation, transparency, and accountability. Above all gender mainstreaming has been identified as a major concern and needs immediate attention for successful implementation of SWAp Program

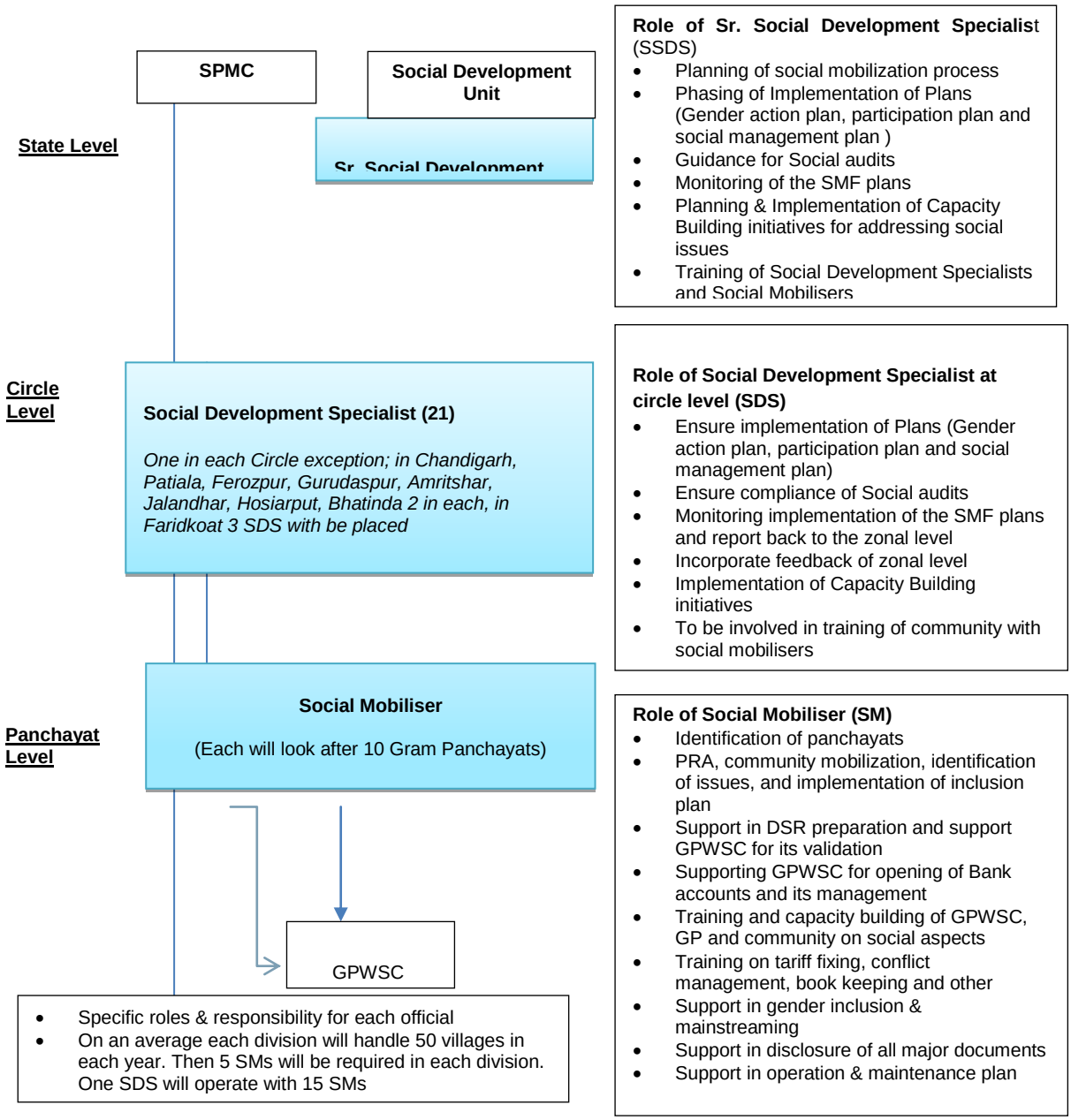
To ensure successful implementation and sustainability of the program, establishment of a social development unit (SDU) is suggested. The Social management unit is supposed to work in consultation with the Divisional level Officials for implementation of Social Management Plans and ensure inclusion, transparency, accountability etc. they will also be responsible for Planning & Implementation of Capacity Building initiatives for addressing social issues.

To ensure successful implementation and sustainability of the program, establishment of a Social Development Unit (SDU) is suggested. The Social management unit is supposed to work in consultation with the Divisional level Officials for implementation of Social Management Plans and ensure inclusion,

The SDU is supposed to be having one dedicated Sr. Social Development Specialist appointed at state level and supported by 21 Social Development Specialist at circle level catering to divisions. The circles Chandigarh, Patiala, Ferozpur, Gurudaspur, Amritshar, Jalandhar, Hosiarput, Bhatinda and Sangrur will have 2 Social Development Specialist followed by 3 Social Development Specialist for the bigger circle Faridkoat. The Social Development Specialist placed at circle level will be responsible for all the panchayat level activities and they will be supported by Social Mobilisers. One Social Mobilisers will be engaged for each 10 panchayats and each division will engage about 5 Social Mobilisers in each year of implementation. Thus, for year one 100 Social Mobilisers will be appointed followed by 200 for year two and 300 for year three of the implementation.

Social Mobilisers will be provide support for implementing panchayat level activities starting form Identification of panchayats to conducting social mapping, community mobilization, identification of issues, and implementation of inclusion plan. They will also be support in DSR preparation and its validation. They will ensure gender inclusion & mainstreaming and will support panchayat in disclosure of all major documents and also for operation & maintenance of the scheme.it is suggested that at least 50% of the Social Development Specialist and Social Mobilisers are women and they receives a mandatory training and orientation sessions before they are actually sent to the respective duty stations. Courses are identified and detailed in capacity building section of this report (TORs for the staffs to be appointed for the SDU is attached as appendix F).

Figure 5.2: Proposed Institutional Structure for Social Development Unit



Source: MM Study

6 Grievance Redressal

6.1 Current Mechanism of Grievance Redressal

The Department has setup a Centralized Public Complaint Redressal System for registration of complaints. The complainants are able to register their complaints through phone round the clock on all days even on Sundays and Public Holidays by dialling just ONE TOLL FREE landline number 1800-180-2468. The information regarding the status of various complaints registered and monitored by department officials on daily basis. The consumers are also able to check the status of their complaints through unique complaint number assigned to the complaint and provided to them during registration of the complaint.

The data provided below indicates that a total 42519 complains are registered during 2009 to 2014 of which 42147 complains are attended and 99 percent complaints have been addressed.

Table 6.1: Grievances Received by the Department & Addressed (year 1.12.09-15.12.14)

Sl.No.	Types of Issues	Number
1	Complaints actually registered during the period	42519
2	Complaints attended & conveyed back to the complainant	42147

Source: Based on Data received from SPMC for the year 1.12.09-15.12.14

6.2 Grievance Redressal Related Responses of the Beneficiaries (Based on Primary Data)

Table below shows that 94.9 percent respondents are not having any complaints about water supply.

Table 6.2: Complaint about water supply

Did your household have any complain about water supply	Districts													
	Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Yes	11	2.8	16	4.0	15	4.0	52	13.0	18	4.5	9	2.2	**121**	**5.1**
No	387	97.2	385	96.0	359	96.0	348	87.0	383	95.5	394	97.8	**2256**	**94.9**
Total	**398**	**100.0**	**401**	**100.0**	**374**	**100.0**	**400**	**100.0**	**401**	**100.0**	**403**	**100.0**	**2377**	**100.0**

Data collected by Nielson & Analysed by MM

Table below depicts that maximum respondents lodged their complaints with panchayat (46.3 percent) followed by GPWSC (14 percent) and pump operator/ linesman (11.6 percent). Interestingly, 26.4 percent respondents have not lodged any complaints despite having problems as many of them think the problems will not be listened.

Table 6.3: Where complaint is lodged

Where complaint is lodged	Districts													
	Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Panchayat	4	36.4	11	68.8	6	40.0	23	44.2	7	38.9	5	55.6	**56**	**46.3**
GPVWSC	0	0.0	0	0.0	1	6.7	16	30.8	0	.0	0	0.0	**17**	**14.0**
Pump operator/linesman	4	36.4	0	0.0	2	13.3	1	1.9	4	22.2	3	33.3	**14**	**11.6**
SNK	0	0.0	0	0.0	0	0.0	0	0.0	2	11.1	0	0.0	**2**	**1.7**
Did not lodge a complaint	3	27.3	5	31.3	6	40.0	12	23.1	5	27.8	1	11.1	**32**	**26.4**
Total	**11**	**100.0**	**16**	**100.0**	**15**	**100.0**	**52**	**100**	**18**	**100.0**	**9**	**100.0**	**121**	**100.0**

Data collected by Nielson & Analysed by MM

Table below depicts the promptness in attending and resolving the complaints. Interestingly 71.9 percent respondents told that their complaints remained unsolved (complaints which were not resolved were regarding water supply duration, frequency and pressure of water supplied). Regarding the duration of problem attended was 3 to 7 days in 8.3 percent cases whereas it took over two months in case of 1.7 percent cases.

Table 6.4: How quickly complaint was attended

How quickly complaint was attended	Districts													
	Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
1 - 2 days	2	18.2	1	6.3	2	13.3	1	1.9	0	.0	0	0	**6**	**5.0**
3 - 7 days	0	0.0	1	6.3	0	0.0	3	5.8	4	22.2	2	22.2	**10**	**8.3**
One week	1	9.1	1	6.3	0	0.0	4	7.7	2	11.1	0	0	**8**	**6.6**
Two week	1	9.1	0	0.0	0	0.0	1	1.9	1	5.6	1	11.1	**4**	**3.3**
One month	1	9.1	0	0.0	0	0.0	2	3.8	1	5.6	0	0	**4**	**3.3**
Two months	0	0.0	0	0.0	0	0.0	0	0.0	0	.0	0	0	**0**	**0.0**
More than two months	0	0.0	0	0.0	2	13.3	0	0.0	0	.0	0	0	**2**	**1.7**
Not resolved	6	54.5	13	81.3	11	73.3	41	78.8	10	55.6	6	66.7	**87**	**71.9**
Total	**11**	**100.0**	**16**	**100.0**	**15**	**100.0**	**52**	**100**	**18**	**100.0**	**9**	**100.0**	**121**	**100.0**

Data collected by Nielson & Analysed by MM

Table below depicts that complaints were solved only in 19 percent cases and in 81 percent cases it remained unresolved. Again unresolved complaints are maximum in number in Sri Muktsar Sahib.

Table 6.5: Was complaint resolved

Was complaint resolved	Districts													
	Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Yes	5	45.5	2	12.5	2	13.3	6	11.5	5	27.8	3	33.3	23	19.0
No	6	54.5	14	87.5	13	86.7	46	88.5	13	72.2	6	66.7	98	81.0
Total	**11**	**100.0**	**16**	**100.0**	**15**	**100**	**52**	**100**	**18**	**100**	**9**	**100.0**	**121**	**100.0**

Data collected by Nielson & Analysed by MM

Table below depicts that 11.6 percent cases were very satisfied with the services out of the solved complaints whereas rest were somewhat satisfied.

Table 6.6: Whether satisfied with the way complaints are resolved

Whether satisfied with the way complaints are resolved	Districts													
	Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Very satisfied	4	36.4	0	0.0	2	13.3	3	5.8	4	22.22	1	11.1	14	11.6
Somewhat satisfied	1	9.1	0	0.0	0	0.0	3	5.8	1	5.556	2	22.2	7	5.8
Not at all satisfied	0	0.0	0	0.0	0	0.0	0	0.0	0	0	0	0.0	0	0.0
DK/CS	6	54.5	16	100.0	13	86.7	46	88.5	13	72.22	6	66.7	100	82.6
Total	**11**	**100.0**	**16**	**100.0**	**15**	**100**	**52**	**100**	**18**	**100**	**9**	**100.0**	**121**	**100.0**

Data collected by Nielson & Analysed by MM

Table below tells about who pays for the repair of water sources. Results depict that in 31.2 percent cases Community/ User household entirely pays followed by 29.4 percent by panchayat, 14.5 percent do not know; 15 percent nobody and 11.4 percent by Panchayat and community/user household on a shared basis showing the poor community involvement.

Table 6.7: Who pays for repair of water sources

Who pays for repair of water sources	Districts													
	Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Community/user household entirely	104	26.1	120	29.9	145	38.8	52	13	143	35.7	178	44.2	742	31.2
Panchayat entirely	103	25.9	176	43.9	124	33.2	99	24.75	86	21.4	112	27.8	700	29.4
Panchayat and community/user household on a shared basis	67	16.8	14	3.5	59	15.8	25	6.25	50	12.5	55	13.6	270	11.4

Who pays for repair of water sources	Districts													
	Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Other	8	2.0	2	0.5	8	2.1	0	0	27	6.7	27	6.7	72	3.0
DK/CS	72	18.1	16	4.0	25	6.7	134	33.5	45	11.2	53	13.2	345	14.5
Nobody	81	20.4	76	19.0	29	7.8	98	24.5	63	15.7	10	2.5	357	15.0
Total (N) Multiple Response	**398**		**401**		**374**		**400**		**401**		**403**		**2377**	

Data collected by Nielson & Analysed by MM

6.3 Conclusion Based on Grievance Redressal

Analysis of the information & data reveals that community is accessing grievance redressal services which have been able to sort out about 99% of registered complains. However, primary data collected from community shows that very few (2%) proportion of community members have lodge complains through Shikayat Nivaran Kendra (SNK), there may be limited of awareness about the complaint system among the community. Further, during discussion with community, it was observed that they feel excluded when their complaints are not addressed. Hence, the study suggests strengthening of the current grievance redressal system and generates awareness about it for increasing frequency of community access. Moreover, only 19% of the clients who lodged complaints were satisfied with the services as problems remained unresolved in 81% of cases as per the primary data collected from beneficiaries. Some mechanism of feedback by GPWSC/ Community Members who had some grievance needs to be developed either on line/ same toll free number/ calling back mechanism to 10% of the beneficiaries who had grievance to confirm the status of problem, duration of problem remedial, satisfaction level, any issues, etc (The detailed plan for redressal of grievances is suggested in section 9.2 Possible Mitigation Measures for the identified risks) .

7 Capacity Building Strategy

7.1 Capacity Building Need Assessment

During interaction with policy level officials involved in implementation of the project, panchayat members and community, the capacity building needs were identified for different stakeholders(as detailed in the table below). Based on the assessment a two ways capacity building process is suggested, wherein in one hand, there will be sensitization of the senior officials, mid-level managers and line workers on the importance of social inclusion, gender empowerment, grievance redressal, accountability, IEC, communication skills etc. at the same time on the other hand, the beneficiaries will be made aware of precautions from water borne diseases, ownership of the project, priority of sewerage, garbage, liquid waste drainage and overall integrated waste disposal system, etc. Discussion on Nutrition, Health, Hygiene and Sanitation may also be planned and made mandatory in all formal gatherings.

Table 7.1: Capacity building needs for different stakeholders

Level	Officials	Capacity Building Needs
State	Officials of SWSM, SPMC, Proposed SDU officials, inter departmental officials, Political, Social and Media Representatives	• Knowledge about World Bank's project, its objective and impact • Water & Sanitation Program, inter-sectoral importance and potential societal changes, etc. • Sensitization on Community Led Total Sanitation approaches • Importance of integrated waste disposal system having sewerage, garbage, liquid waste • World Bank Policy on Program Management • Aspects of Social Development • Knowledge about recent innovations in RWSS including community driven approaches • Gender Empowerment & budgeting • Financial Management of participatory projects • Gender Budgeting • Inter- Departmental Coordination & Convergence Issues and integrated feedback mechanism • Planning and Implementation of Monitoring, Evaluation and Feedback System - Tracking of Performance - Grievance Redressal - Compliance on Field Visit Reports
District	Officials of DWSM, Proposed SDU officials, inter departmental officials, Zila Parisad Members, Political, Social and Media Representatives	• Knowledge about World Bank's project, its objective and impact • Water & Sanitation Program, intersectoral importance and potential societal changes, etc. • Sensitization on Community Led Total Sanitation approaches • Importance of integrated waste disposal system having sewerage, garbage, liquid waste • Knowledge on Public Health issues • World Bank Policy on Program Management • Aspects of Social Development • Community Driven Approaches • Gender Empowerment

Level	Officials	Capacity Building Needs
		• Financial Management of participatory projects • Gender Budgeting • Inter- Departmental Coordination & Convergence Issues and integrated feedback mechanism
	Officials of DWSC at implementation and operation level	• Water & Sanitation Program, intersectoral importance and potential societal changes, etc. • Sensitization on Community Led Total Sanitation approaches • Importance of integrated waste disposal system having sewerage, garbage, liquid waste • Knowledge on the issues related to public health, sanitation, safe drinking water, water quality issues, etc. • Knowledge about recent innovations in RWSS including community driven approaches • Financial management of participatory projects • Gender Budgeting • Planning and Implementation of Monitoring, Evaluation and Feedback System - Tracking of Performance - Grievance Redressal - Compliance on Field Visit Reports • Training on Social Development, Gender Empowerment, Social Inclusion of marginalized • Exercise on planning of different activities along with the defined time, responsible person & output for the next quarter/ year • Training need assessment for the junior staff
Division Level	Junior Engineer	• Knowledge about World Bank's project, its objective and impact • Knowledge on Community Led Total Sanitation approaches and participatory approaches including project cost to be recovered from community • Knowledge about current requirements of participatory planning approaches and its implementation procedures, including strategies/ action plan for inclusion • Orientation on Social Mobilisation Aspects • Strengthening of Convergence Aspects • Awareness on the issues related to public health, sanitation, safe drinking water, water quality issues, etc.
	Social Mobiliser	• Knowledge about World Bank's project, its objective and impact • Knowledge about recent innovations in RWSS including community driven and demand driven approaches • Importance of integrated waste disposal system having sewerage, garbage, liquid waste • Knowledge on Community Led Total Sanitation approaches and participatory approaches including project cost to be recovered from community • Knowledge about current requirements of participatory planning approaches and its implementation procedures, including strategies/ action plan for inclusion • Skill set on IEC, Communication and advocacy • Competencies Trainings on maintenance of records, writing meeting minutes, users management skills, soft skills, etc. • Skill sets to train GPWSCs on book keeping, maintenance of bank account, account

Level	Officials	Capacity Building Needs
		management, register maintenance, tariff collection, etc. • Knowledge on their role and willingness to supervise the aspect of project planning, implementing support, monitoring and evaluation • Sensitization about role of GPWSCs and GP • Skill sets on community management to devolve implementation responsibilities to GPWSCs and GPs • Knowledge on community procurement methods for construction materials, goods and services • Knowledge about public health & hygiene, good and bad practices, water quality, etc. • Knowledge about social audit, conflict management, grievance redressal, etc. • Getting feedback, analyzing the feedback and reporting it back to higher level • Refresher Training on Awareness Generation for Change Agents
Village	GPWSC Members , Panchayat Members	• Knowledge about World Bank's project, its objective and impact • Knowledge about recent innovations in RWSS including community driven and demand driven approaches • Importance of integrated waste disposal system having sewerage, garbage, liquid waste • Knowledge on Community Led Total Sanitation approaches and participatory approaches including project cost to be recovered from community • Knowledge about current requirements of participatory planning approaches and its implementation procedures, including strategies/ action plan for inclusion • Knowledge on IEC, Communication and advocacy • Competencies Trainings on maintenance of records, writing meeting minutes, users management skills, soft skills, etc. • Knowledge on book keeping, maintenance of bank account, account management, register maintenance, tariff collection, etc. • Sensitization about role of GPWSCs and GP • Knowledge on community procurement methods for construction materials, goods and services • Knowledge about public health & hygiene, good and bad practices, water quality, etc. • Knowledge about social audit, conflict management, grievance redressal, etc. • Women Empowerment Training regarding water and sanitation • Refresher Training on Awareness Generation for Change Agents
	Community especially women	• Knowledge about World Bank project, its objective and impact • Knowledge about role of GPWSCs and GP • Knowledge about health & hygiene, good and bad practices • Decision making aspects in water and sanitation • Awareness on the issues related to unsafe water and improper sanitation • Women Empowerment Training regarding water and sanitation to the young & literate generation of women as can play bigger role in management of infrastructure related to water & sanitation • Importance of integrated waste disposal system having sewerage, garbage, liquid waste • Refresher Training on Awareness Generation for Grass Root level Change Agents
	School	• About cleanliness, how to use water economically and hygiene education

Level	Officials	Capacity Building Needs
	children	
	AWW, ASHA, ANM, MPW & other Health & ICDS Worker	• Assess purity of water/ Testing of water samples • Awareness on the issues related to unsafe water and improper sanitation • Refresher Training on Awareness Generation for Grass Root level Change Agents

Source: MM Study

7.2 Capacity Building Strategy and Action Plan

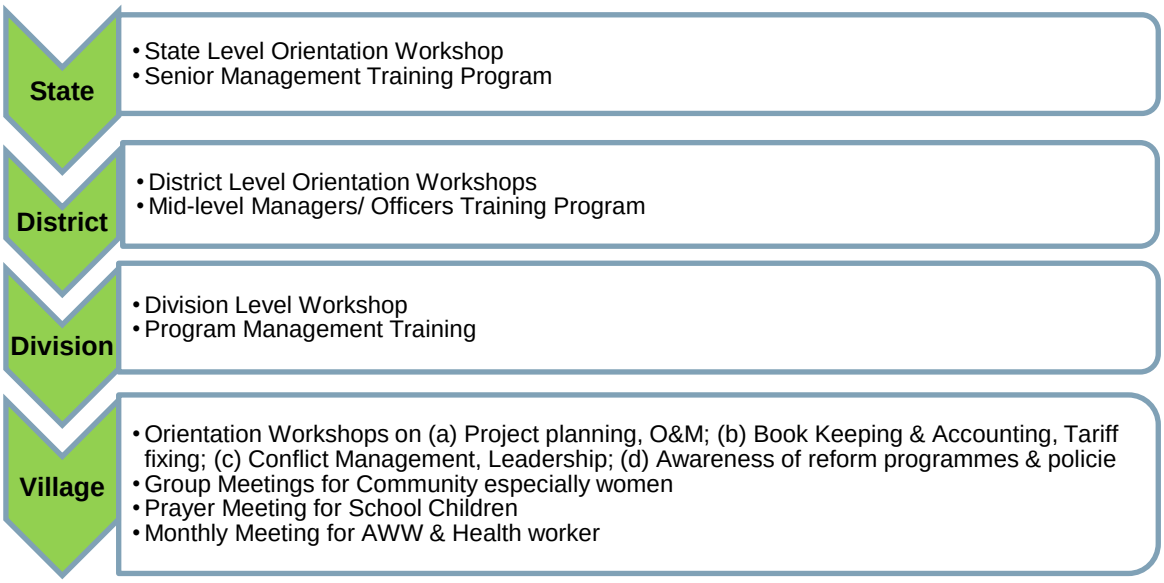
SWSM is apex and visionary body. It has to update its knowledge about innovations; sensitization on importance of Gender Equity, Social Inclusion strategies into action is required for Officials of SWSM, SPMC and SMU. Sustainability of the system requires strengthening accountability, supportive supervision mechanism; inter departmental liasoning for power supply during water supply timings, management of public health issues, etc. Capacity building is also required for online monitoring for sustainability of system like MIS data based feedback mechanism, Uploading Field Monitoring Visit, Human Resources along with training status, Financial Management, grievance redressal effectiveness, maintenance guidelines and emergency support tracking system, etc. at state, district and block level.

The Capacity Building Strategy and Action Plan are based on the following findings:

- Staff Shortage at each level has been observed.
- Knowledge up gradation is required.
- Social inclusion is still an issue.
- Gender Empowerment and Involvement at institutional and community level needs strengthening. There is a need to involve women with certain roles and responsibilities and consequently in decision making process practically rather having them as just members of GPWSC.
- Gender & Social sensitization of the functionaries is required.
- Prevalence of water borne disease shows that water availability might have been ensured but safe drinking water is still an issue.
- Developing Sewerage and Waste Disposal System need to be prioritized.
- Management of Power Supply for supplying water needs inter departmental coordination.
- Good IEC and Communication Skills require to be percolated up to lowest level.
- Strengthening accountability and supportive supervision mechanism.
- Maintenance training, technical input/ guidance system

Capacity Building Strategy is proposed at four levels:

Figure 7.1: Proposed Four Capacity Building Strategy



Source: MM Study

7.3 Potential training institutions for PRWSS

In view of the specialized training and capacity building envisaged under the social and institutional assessment of the project, it is necessary to identify nodal training institutes that will work closely work with capacity building of PRWSS for conceptualizing, designing, conducting and managing training programs on the capacity building. As per requirements, two Principal Training institutions could be identified at the state level - one for social & management trainings and the other for engineering trainings. The key responsibilities of the principal institutions will be as follows:

- Design of training modules – contents, methodologies, training materials, hand outs, assessment variables – and testing of finalised modules before implementation.
- Design of TOTs for Regional Training Institutions (RTI) and Local Trainers (Social Mobilisers - SM).
- Delivery of TOTs to Regional Training Institutions
- Delivery of state level trainings for stakeholders at Apex level (such as SWSM and Policymakers, elected representatives and Opinion makers) and Strategic level including workshops of SWSM, SPMC, DPMC BRCs, and sector institutions.
- Planning and coordination of community capacity building programme (coordination amongst RTI, SM, GPWSC and Community).
- Concurrent evaluation of training activities – feedback from trainers and the Participants.

SIRD (State Institute of Rural Development) and NITTTR (National Institute of Technical Teachers Training and Research) are strong enough to deliver social and engineering trainings respectively. At the same time Regional Training Institutions (RTIs) could be engaged for Training of Trainers (ToTs) to support local trainers (Social Mobilisers), DWSS, Scheme level Committee, functionaries of sector institutions, functionaries at district levels and Service Agencies. Some such specialized institutions are named below:

- State Institute of Rural Development (SIRD), Nabha, Patiala
- National Institute of Technical Teachers Training and Research (NITTTR), Chandigarh
- National Institute for Integrated Rural Development & Transfer of Technology, Phagwara, Kapurthala
- Sri Sai Collage of Engineering and Technology, Pathankot
- DAV Institute of Engineering & Technology, Jalandhar
- Alternative Development Initiatives (ADI), Chandigarh
- Punjab Engineering Collage, Chandigarh

7.4 Training Outlines for the proposed programs

Capacity building delivery model has been chosen in consultation with the PRWSS CCDU officials adhering to their capacity building programme. The key features of the model are as follows:

- CCDU will directly be responsible for the execution of the capacity building programme with direct operational support being provided by the service agency.
- Professional support both for manpower and training material will be provided by the service agency.
- Supervision and monitoring of the capacity building programme is to be two tiered to take corrective action in time.
- Effective delivery of capacity building needs to be ensured, by including a provision of in-built quality assurance mechanism at each level of the model. Knowledge assessment before and after training needs to be an integrated part of the training.

The above mentioned model ensures that capacity will be built at each level without any bias which will, in the long run, improve the efficiency of the programme management and operations. The training outline is provided in table below.

Table 7.2: Training Outline

Name of the Training	Officials to be involved	Objective of the training program	Participants Number/ Batches	Responsibility of conducting the program	Frequency	Cost Estimates in INR (aprox)
Orientation Workshop (One Day)	State Level Officials of SWSM, SPMC, Proposed SDM, inter departmental officials, Political, Social and Media Representatives	Salient Features & Refreshers on the components relevant for improving inter sectoral coordination, bringing all the stake holders on the common platform for effective implementation.	50/ One	SPMU	Once a year	50 thousand*
Senior	State Level Officials of	Salient Features, Updates & Refreshers	30/ One	SPMU	Once a year	1 lakh*

Name of the Training	Officials to be involved	Objective of the training program	Participants Number/ Batches	Responsibility of conducting the program	Frequency	Cost Estimates in INR (aprox)
Management Training (Two Days)	SWSM, SPMC, Proposed SDS	on the components relevant for improving efficiency & effectiveness of the program				
Orientation Workshop (One Day)	District Level Officials of DWSM, Proposed SDM, inter departmental officials, Zila Parisad Members, Political, Social and Media Representatives	Salient Features & Refreshers on the components relevant for improving inter sectoral coordination, bringing all the stake holders on the common platform for effective implementation.	50/ One	DWSM	Once in a year	40 thousand*
Mid-level Managers/ Officers Training Program (Two Days)	District Level Officials of DWSM at implementation and operation level	Salient Features, Updates & Refreshers on the components relevant for improving efficiency & effectiveness of the program	30/ One	DWSM	Once in a year	80 thousand*
Management Training Program / Induction Training (two Days)	Division Level - Junior Engineer	Salient Features & Refreshers on the components relevant for improving inter sectoral coordination, bringing all the stake holders on the common platform for effective implementation.	30/ Four-Five	Division Level Official	Once in a year	30 thousand each*
Training for orienting Social Mobiliser and Social Development Specialist (Five Days)	Division Level- Social Mobiliser, Social Development Specialist	Salient Features, Updates & Refreshers on the components relevant for improving efficiency & effectiveness of the program	25/ Four	State/ Division Level Official	Once after induction	1 lakh each*

Name of the Training	Officials to be involved	Objective of the training program	Participants Number/ Batches	Responsibility of conducting the program	Frequency	Cost Estimates in INR (aprox)
• Orientation Workshops (One Day Each) – Project planning, O&M – Book Keeping & Accounting, Tariff fixing – Conflict Management, Leadership – Awareness of reform programmes & policies	Village Level- GPWSC members, Panchayat members	Salient Features & Refreshers on the components relevant for improving inter sectoral coordination, bringing all the stake holders on the common platform for effective implementation.	25- 30/ One	JE/ Social mobilisers	Four in a year	Rs. 10 Thousand each*
Group Meetings/ Orientation Meetings	Village Level- Community especially women	Salient Features & Refreshers on the components relevant for improving inter sectoral coordination, bringing all the stake holders on the common platform for effective implementation.	25- 30/ One	Social mobilisers	Quarterly	Rs. 1 Thousand each*
Prayer Meetings	Village level- School children	About cleanliness, how to use water economically and hygiene education		Social mobilisers	Weekly	Nil
Monthly Meetings	Review Meeting – AWW, ASHA, ANM, MPW & other Health & ICDS Worker	• Assess purity of water/ Testing of water samples • Awareness on the issues related to unsafe water and improper sanitation • Refresher Training on Awareness Generation for Grass Root level Change Agents		Social mobilisers	Monthly	Nil
Exposure visits to successful projects in other states, may be Karnataka	• Select members of SWSM (PMU/CCDU), DWSM • Select Block	• To make the participant understand the extent of participation in project planning, implementation and monitoring	45 to 50	PMU and CCDU ▪	One time activity	15,00,000(the above mentioned cost includes cost of organizing

Name of the Training	Officials to be involved	Objective of the training program	Participants Number/ Batches	Responsibility of conducting the program	Frequency	Cost Estimates in INR (aprox)
	Coordinators • Select Members of VWSCs • Select Members of GPs • Select members of Social Mobilisers	• To help them understand the process of getting community participation. • To motivate participants for adaptation of best practices in their own projects.				the workshop it does not include and staff cost or TA/DA or travel)
*The above mentioned cost includes cost of organizing the workshop it does not include and staff cost or TA/DA or travel)						
Source: Compiled based on NRDWP, NBA, VWSC guidelines and also the earlier RWSS projects of the World Bank						

Total number of functionaries proposed to be trained over the project period at various levels (state, district and Panchayat) is presented in the table below.

Table 7.3: Number of Training to be trained during the project period

Training level	Year 1	Year 2	Year 3	Total
Panchayat level	335	335	335	1005
Division level Management Training- will take place at District level	22	22	22	66
Management Training Program / Induction Training (SDS & SM) will take place at circle level	3			3
District level Senior Management Training- will take place at circle level	3	0	0	3
District level Orientation Workshop (to be organised by two districts)	11	11	11	33
State level Senior Management Training	1	0	0	1
State level Orientation Workshop	1	1	1	3
Total	**376**	**369**	**369**	**1114**

Source: MM Study

7.5 Monitoring and Evaluation of the Capacity Building

Monitoring and evaluation of Capacity Building is intended to assess how far the operationalization of the capacity building programs have been implemented as planned, and also to give added value towards the capability of the executives, both at the central and regional level. Therefore, the objectives of implementing monitoring and evaluation on capacity building is to collect data and information from all aspects of government implementers related to the operationalization of decentralization in the era of regional autonomy. This is regarded as useful to help the state implementer in order to find solutions regarding successes and constraints being encountered.

Functionally, the objectives of monitoring and evaluation include among others:

- *Control* of the implementation of the capacity building activities both at central and regional level.
- *Evaluation* (assessing the impact of activities on the performance of central and regional government institutions).
- *Provision of inputs* to the central and regional governments for the review of capacity building needs and implementation strategies.
- *Documentation* of successful cases, innovative approaches, examples of good practices of good regional governance to share the experiences with other stakeholders.

8 Monitoring & Evaluation

8.1 Monitoring

The project monitoring will aim to improve the following:

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

8.2 Type of Monitoring

Internal and external monitoring has been proposed to ensure accountability.

8.2.1 Internal Monitoring

This could be undertaken at each of the levels like GPWSC, DWSC and SPMC. At each level, participatory monitoring could be adopted under which representatives of GPWSCs, SO and other stakeholders could be involved and they can submit report to the upper level i.e. DWSC which will further review the progress and then submit its report to SPMC.

Table 8.1: Indicators to be Monitored

Indicators to be Monitored	Monitoring Outputs	Responsibility	User of Information
• Institutional & Establishment of habitations as self-sustainable management unit • Devolution of power to ZP and GPs; • Appointment of Social Mobilisers to ensure inclusion & equity, Participation, Transparency, Gender Mainstreaming , Accountability and Adhering to the Policies (the World Bank & GoP) as mentioned in checklist below. • In schools and hygienic standards as mentioned in checklist below. • Status of water & sanitation in Anganwadis as mentioned in checklist below.	• Policies made in this regard by Government of Punjab • Government orders issued • Guidelines issued in this regard by Government of Punjab • Circulation of these Policies, Government Orders and Guidelines to Districts and blocks	• Principal Secretary, PSWSM • SPMC • PD PMC • Engineer-in-Chief, DWSS	• State Level • Principal Secretary, RWS • SWSM • CCDU • SPMC • Engineer-in-Chief, RWS • Development partners • Experts of different fields (Social, Technical and Financial) • Other Development partners • District Level • District Collector • Superintending Engineer • DPMC • Executive Engineer • Experts of different fields (Social, Technical and Financial) • NGOs • Mandal & Village Level • PRIs • GPWSC • AE/AEE, DWSS • Experts of different fields (Social, Technical and Financial) • NGOs

8.2.2 External Monitoring & Evaluation-Third Party Audit

Evaluation of project is suggested by appointing external consultants by SPMC at the end of completion of each batch of sub-projects. The purpose is to evaluate whether the project has achieved the expected outputs and outcomes planned. An External agency may carry out the evaluation. There could be two evaluations one after planning and other after implementation. Successful completion of third party audit could be linked with release of subsequent payment.

8.2.2.1 Terms of Reference Third Party Monitoring & Evaluation, Social Development Section

The project is to be adopting Social Management System (SMS) for the entire infrastructure created under its financial assistance. Implementation of these projects as per SMS is critical for improvement of social issues. To ensure that the SMS is established, maintained and is effective in ensuring project-level social safeguard implementation, one person external independent auditor will be hired. The external auditor will conduct two audits i) after planning and ii) after implementation

Objective

The objective is to obtain an external independent audit perspective on Punjab Water's SMS in terms of its internal functioning and also in rendering effectiveness in implementation of social management action plan in the projects financed by the PRWSS.

Scope of Work

The auditor will do an independent evaluation of the implementation of social management action plan of the PRWSS and the projects funded by it including those under World Bank line of credit. The following will be the scope of work:

a) To develop a broad audit program that will include an audit objective, scope, methodology and schedule and prepare an audit checklist that will cover meetings in PRWSS meetings with the implementing agencies and field visits.

b) To conduct the audit as per the audit plan. This audit will necessarily check whether the procedures as stipulated in the SMS have been followed, their effectiveness and how proper social safeguards are practiced in the projects financed.

c) The external auditor will conduct detailed audit of about sub projects comprising of direct PRWSS funding and World Bank line of credit funding. The sub projects shall be decided in consultation with NCRPB and shall include subprojects with significant impacts. It should take into account recommendation of World Bank in the review of Social Monitoring Reports.

d) Assess the PRWSS and implementing agencies ability to manage and address all relevant social risks and impacts of its business and operations, in particular, the issues identified in donor's social safeguard requirements;

e) Assess the client's compliance record with applicable laws and regulations of the jurisdictions in which the project operates, pertaining to social matters, including those laws implementing host country obligations under international law;

f) Assess the implementation of grievance redressal mechanism (GRM) at PRWSS in terms of its effectiveness.

g) Identify the PRWSS and its project proponent's main stakeholder groups and assess current stakeholder engagement activities.

h) SMS auditor will submit an audit report to PRWSS and after discussions will mutually agree on a timeframe to implement the follow-up actions. PRWSS will submit all final audit reports to PRWSS and World Bank for review/record.

i) SMS auditors will carry out a desk review and field visits to confirm that the follow-up actions have been done. The audit will be deemed as closed only after this confirmation is obtained.

j) To prepare a report and present the findings to the senior management of PRWSS.

Team composition, Qualification and Experience

The team composition will be one person having requisite experience in social impact assessment of infrastructure projects. The Social expert should possess a Master's Degree in Social Science/ Social Development or in allied areas. Preference will be given for professional attainment/memberships and relevant publications. It is desirable for the expert to have proficiency in written and oral Punjabi. The expert will have at least 10 years of experience in i) auditing of resettlement & rehabilitation plans for infrastructure projects, ii) preparing social management plans iii) gender action plans and iv) Indigenous Peoples Development Plans (IPDP),and v) Experience of working in infrastructure projects financed by bilateral / multilateral funding agencies for social safeguards.

Time Input, Deployment & Place of Deployment

The time input will be 60 working days for each of the three years (Total input in three years will be 180 working days). The first span will be for 90 days and remaining period of ninety working days will be in next span.

Outputs / deliverables

The following outputs / deliverables are envisaged:

a) **First Span:** Audit report including reports of 20 subprojects with recommended time bound action plan for rectifying issues to be submitted in 80 working days of deployment.

b) Second Span: Conduct a follow-up audit to verify closure of findings & submit final compliance report.

Payments

For the three year, the payment will be made in four instalments. The first payment equivalent to 20% of the agreed contract value will be advance payment, followed by 30% payment on submission of first audit report. Third payment of 30% will be released after submission of second audit report followed by fourth and balance 20% payment shall be released on submission of the final compliance report. No advance payment shall be made. Payment will be time based and also linked to outputs.

Termination of Services

If the work of auditor is not found satisfactory at any stage then the services can be terminated by the competent authority without assigning any reasons thereof.

The evaluation framework is given in the following table

Table 8.2: Indicators to be Evaluated

Indicators to be Evaluated in each term	Evaluation Outputs	Research Techniques	Responsibility
• Institutional & Establishment of habitations as self-sustainable management unit • Devolution of power to ZP and GPs; • Appointment of Social Mobilisers to ensure inclusion & equity, Participation, Transparency, Gender Mainstreaming , Accountability and Adhering to the Policies (the World Bank & GoP) as mentioned in checklist below. • In schools and hygienic standards as mentioned in checklist below. • Status of water & sanitation in Anganwadis as mentioned in checklist below.	• Policies made in this regard by Government of Punjab • Government orders issued • Guidelines issued in this regard by • Government of Punjab • Circulation of these Policies, Government Orders and Guidelines to Districts and blocks	• Rapid assessment by selecting 20 households, two schools and two panchayats in 20 Panchayats of 1/3 of the selected districts of Punjab.	• External agency
Source : MM study			

- Table 8.3: Indicator to be Monitored (checklist)

Monitoring & Evaluation Checklist for the PRWSS- II Program		
Sl.No.	**Question**	**Responses**
1.	District (Name)	
2.	Block	
3.	Gram Panchayat	
4.	Name of Village	
Indicators to be Monitored at the level of Implementation		

5.	Number of engineer is available for 1,00,000/- population at Block level					
6.	Number of 5 DWSC consultants in each district	Yes----1 No…2 IF yes Details				
7.	Number of 2 BRCs at block level	Yes----1 No…2 IF yes Details				
8.	All project staff trained both in and specialized aspects, including gender sensitization	Level	General training on programe orientation	Gender sensitization	Financial training of World bank project requirements	Technical training on M&M
		State				
		Divisions				
		GPWSC				
		Social Development Specialist				
		Social Mobilisers				
Indicators to be Monitored at GPWSC/GP Level						
9.	GPWSC planned for scheme implementation	Yes----1 No…2 IF yes Details				
10.	GP to passed resolution showing willingness to adopt the scheme along with providing panchayat land free of cost for water works	Yes----1 No…2 IF yes Details				
11.	Whether GP is intimated about their selection, its criteria and reasons for selection through letters, and community meetings	Yes----1 No…2				
12.	GP has displayed List of GPWSC members along with their phone numbers through 2-3 wall writings at public places	Yes----1 No…2				
13.	Opening of separate bank account by GPWSC GPWSC and addition Govt signatories SDE and JE in charge of the scheme	Yes----1 No…2				
14.	Stakeholder mapping in the village happened to identify	Yes----1 No…2				

	key stakeholder groups, undertake PRA and prepare social mapping and initiate community mobilisation			
15.	Number of female headed and other vulnerable households found (differently able, head of the HH is above 65 with no regular income)	Total Household	Female headed household	Other vulnerable HH
16.	Differential rate worked out for female headed and other vulnerable households	Yes----1 No…2 IF yes how many households are benefitted---------		
17.	Selection of suitable Panchayat Land by Technical staff among various options offered GP arranges land for construction of units pertaining to water supply including water treatment plan (required in case of supply of surface water) a.Extend of land provided by GPWSC(acres) b.Has been there Gram Sabha resolution about the land allocation. c.Has there been adverse impact on local communities (particularly women) due to allocation of land. If yes what measures have been incorporated to mitigate the adverse impact.	Yes----1 No…2 IF yes Details Yes/No		
18.	Digital Survey done	Yes----1 No…2		
19.	Training and orientation of GPWSC	Yes----1 No…2		
20.	Tripartite MOU (Agreement) (for SVS) signed among EE, GP and GPWSC	Yes----1 No…2		
21.	Habitation level IEC	Water Quality testing camp of	Yes----1	

	campaigns and community mobilization	existing sources (1 camp for 50 houses)	No…2
		Information on health and hygiene issues	Yes----1 No…2
		Exposure Tour to nearby existing role model village	Yes----1 No…2
22.	Special training camp in the village for members of GPWSC from SC /Women /Poor category explaining their roles and responsibilities in the working of GPWSC	Yes----1 No…2	
23.	No. of women empowerment trainings conducted	----------	
24.	Special training to office bearers of GPWSC like Chairman, Secy, Cashier and Technical member of GPWSC(JE in charge) on their role and responsibilities	Yes----1 No…2	
25.	No. of women member trained	----------	
26.	Whether Social Mobiliser is appointed for this village	Yes----1 No…2 IF yes Details	
27.	Sex of Social Mobiliser	Male ----1 Female---2	
28.	Whether Social Mobiliser has attended mandatory training	Yes----1 No…2	
29.	Whether Social Mobiliser is supporting GPWSC in planning of scheme including management of accounts	Planning of scheme	Yes----1, No…2
		Management of accounts	Yes----1, No…2
		Documentation of meetings	Yes----1, No…2
		Conflict management	Yes----1, No…2
		Water quality monitoring	Yes----1, No…2
		Tariff fixing	Yes----1, No…2
		Collection of tariff	Yes----1, No…2
		Other O&M practices	Yes----1, No…2
30.	Whether women groups are trained in tariff collection, maintenance etc	Yes----1 No…2	
31.	O&M plan prepared at GP level	Yes----1 No…2 IF yes Details	
32.	Collection of user charges	Yes----1 No…2	

		IF yes Details
33.	VWSCs actively participating in O&M	Yes----1 No…2 IF yes Details
34.	Whether One third members of GPWSCs are women	Yes----1 No…2 IF yes Details
35.	Whether Involvement of Schools in GPWSC	Yes----1 No…2 IF yes Details
36.	GPWSC passed Resolution approving the scheme technology and estimates	Yes----1 No…2
37.	Whether technical sanction of Scheme as per GoP guidelines	Yes----1 No…2
38.	Whether Collecting 100% community contribution done	Yes----1 No…2
39.	Whether users contribution is deposited in GPWSC account	Yes----1 No…2
40.	Whether Display of details of scheme, contribution collected happened	Yes----1 No…2
41.	Whether GPWSC members are orientated on bidding process and their responsibility thereof during implementation phase	Yes----1 No…2
42.	Whether bid document is approved by the competent authority	Yes----1 No…2
43.	Receipt of 1st instalment of 60% of the scheme cost by GPWSC	Yes----1 No…2
44.	Whether GPWSC has evaluation of the bids	Yes----1 No…2
45.	Signing of Contract between the GP/ GPWSC and the selected contractor	Yes----1 No…2
46.	Organising regular meetings by GPWSC documentation of minutes of meeting	Yes----1 No…2 Collect number of meeting held in last 6 months.---------- Collect number of women attended in last 6 meetings

		i) Number of total participants---------- Number of women---- ii) Number of total participants---------- Number of women---- iii) Number of total participants---------- Number of women---- iv) Number of total participants---------- Number of women---- v) Number of total participants---------- Number of women---- vi) Number of total participants---------- Number of women----			
47.	Asha, ANM worker attended in the last 6 meetings	Total Meetings	No. of ASHA attended	ANM Attended (Yes—1. No..2)	
		1			
		2			
		3			
		4			
		5			
		6			
48.	Community monitoring by GPWSC members social audit committee coordinating with EE	Yes----1 No…2			
Indicators to be Monitored at Household Level but collated at GP level					
49.	Proportion of household's having toilet		Total Number	With Toilet	With functional toilet
		Total Households			
		Women headed Households			
		ST households			
		SC households			
		Household with disable head			
		Reason for nonfunctional Toilet			
50.	Proportion of household's having piped water Connection		Total Number	With piped water connection	With functional water connection
		Total Households			
		Women headed Households			
		ST households			
		SC household			

		s			
		Household with disable head			
		Reason for nonfunctional water connection			
51.	Households having piped water connection	How many times they receive water on daily basis			
		Number of hrs. of supply			
		Average amount paid for water supply per month			
		Type of storage for water (specify)			
		Contamination observed in drinking water			
		Complains registered			
		Complains addressed			
		Process followed for addressing the complains			
		Proportion of Households using water purification units			
Indicators to be Monitored at School Level but collated at GP level					
52.	Schools with Toilets	Total Number of schools at GP			
		Total Number of schools with a functional toilet at GP			
		Total Number of schools with a functional separate toilets for boys & Girls			
53.	Schools with Piped Water Supply	Total Number of schools having running water in the toilet			
		Total Number of schools having drinking water facility (piped water facility)			
Indicators to be Monitored at Anganwadi Level but collated at GP level					
54.	Anganwadis with Toilets	Total Number of Anganwadis at GP			
		Total Number of Anganwadis with a functional toilet at GP			
		Total Number of Anganwadis with a functional separate toilets for boys & Girls			
55.	Anganwadis with Piped Water Supply	Total Number of Anganwadis having running water in the toilet			
		Total Number of Anganwadis having drinking water facility (piped water facility)			
Source : MM study					

8.3 Social Audit

Social Audit system may be adopted for assessing qualitative indicators through beneficiary participation. This could be done at least twice during the scheme cycle, may be while moving from planning to implementation; and second, at the time of completion and commissioning. All the relevant stakeholder representatives could be mobilised into a team to undertake and audit and then sign off on the status as well as the actions thereof

8.3.1 Terms of Reference Social Audit

The Society shall facilitate the conduct of Social Audit by Village Panchayat Gram Sabhas to ensure proper implementation of the scheme. The Society will provide for periodical conduct of Social Audit with an objective of continuous public vigilance to ensure accountability in the implementation of projects laws and policies. The works taken up under the Scheme shall be referred to the periodically convened assemblies by the Gram Sabha in accordance with the provisions specified. The Social Audit will be conducted by a committee formed under the Gram Panchayat which will consist of 5 to 7 beneficiary members of the panchayat with 30% representation of women. The committee could be headed by a retired Government Officer may be school teacher or other.

This could be done at least twice during the scheme cycle, may be while moving from planning to implementation; and second, at the time of completion and commissioning. The report of social audit will be submitted to GPWSC and GP. From there it will be further routed to the JE/EE office.

9 Action Plan for Social Management

9.1 Key Risks

9.1.1 Community Support & participation

The activities of the project would need to get increased support of the community which will go a long way in sustenance. The following are the key risks at current stage which is entirely based on interactions with the villages/villagers being covered:

- Awareness among the community needs to be increased through repeated interactions
- Socially backward groups are not well-off economically and thus, they may not be able to pay for the capital cost
- Limited participation of women, limited economic empowerment, illiteracy, not participating in decision making of the family etc

9.1.2 Regular water Supply

The community having piped water supply face erratic and inadequate water supply. Thus, the community opined that they would like to have adequate timely water supply availability before making decisions on sewer connection.

Due to erratic power supply, the water pumps could get affected and hence the money invested in the creation of the infrastructure could get affected. If the water supply is not regular and adequate to the community, they will be forced to get back to their earlier water sources; thereby the health issues will persist mainly in case of villages with water contamination.

9.1.3 Limited participation of women

Women comprise about half of the population and they are not adequately empowered to participate in community meetings and provide their inputs in service delivery related to water & sanitation. Poor women's status in the form of limited economic empowerment, illiteracy, poor involvement in decision making of the family etc. leads to limited participation in GPWSC also.

9.1.4 Shortage of Staff and non-availability of permanent structure at Block Level

Shortage of manpower was observed at different levels of implementation including no established setup at block level which is supposed to be near the community may affect the implementation adversely.

9.1.5 Soft Skill Among staffs

While interactions with the junior level staff, it was felt that their capability would need improvement as they are regularly interacting with the community for project delivery and currently the emerging project needs are dynamic in nature. Thus, it is essential that this level is established as Block Resource Centers and

augmentation of soft skills in staff posted at different levels of implementation so that better service delivery could be adopted.

9.1.6 Equity & Inclusion

Punjab is better in terms of health and sanitation indicators at all-India level. However, about 29 percent of households in rural Punjab do not have toilets. Hence, these households may require special assistance to get connected to toilet initially and then to sewer. Hence, there is a requirement of **Special Assistance** in order to ascertain 100% inclusion.

9.1.7 Political influence

Looking into the importance of GPWSCs, it is possible that political and economically dominating groups would try to control the GPWSCs. This can also initiate a conflict between GPWSCs and Gram Panchayat, mainly in the constituencies reserved for socially backward groups.

9.1.8 Availability of Septic Tank

Non-availability of septic tank at the household level may limit the community to take up the sewer connection. Hence, these households may require some **Special Assistance** to get connected to toilet & septic tanks initially and then to sewer. Punjab already has an established pro poor policy for connecting households to household water connections and sewer connections. Hence, special assistance could be helpful in ensuring 100% connection.

9.1.9 Empowering GPWSCs on technical aspects and maintenance of records

It was observed that GPWSCs are taking responsibility for operation and maintenance of the schemes but they limited technical competencies on maintenance and also weak in record maintenance. This could have adverse effect on sustainability of the schemes. Hence, they should be trained on technical aspects and maintenance of records including accounting.

9.1.10 Delay in project delivery

There are some capability gaps in the different wings of DWSCs and non-availability of permanent structure at Block level; this may lead to the project unable to deliver its outputs within its stipulated time.

9.1.11 Contamination of Ground Water

Uranium is a type of contamination identified in the State and it requires expert support from different competent research agencies like BARC, IITs etc to avoid further health issues.

9.1.12 Grievances Redressal

Data on Grievance redressed indicates 99% compliance however, community has different views. High levels can be attained along with prompt service if trained manpower is placed as per the requirements.

9.2 Possible Mitigation Measures for the Identified Risks

The identified risks can be minimised by the following proposed mitigation measures.

Table 9.1: Risk & Mitigation

Risks	Proposed Mitigation measures
Community Support & participation including women participation	• Multiple rounds of stakeholder consultations should be held prior to conceptualizing and during preparation of the project. Each sub project should have a local level communication office with a grievance redressal officer. The activity of each sub project should be overseen by a high level coordination committee (at state level.) • Strengthening of Village Level Structure i.e GPWSCs – It is important that each GPWSC is represented by all the sections of the society of the village and their members are trained to assist the W&S service delivery. • Capacity building of GPVWSC members • Ensuring women participation – One-third of the GPVWSCs members should be women and they should be provided mandatory training on various aspects thereby leading to overall empowerment – The social mobilization agency should deploy women members to get women's participation – Women could be contacted by the Anganwadis and schools through their wards and motivated – Women education and empowerment programmes should be reinforced – Women groups organised into Self-help Groups could be involved for active participation in W&S related issues – Women could be trained for providing services related to W&S, may be through rural sanitary marts • Strengthen the bottom up approach and involvement of PRIs and community in O&M of W&S programmes • Capacity building of PRIs in O&M • **Social Development need to be undertaken by a specialised Social Development Unit as suggested below.** All major meetings of GPWSCs needs to be attended by Social Mobilisers and he is supposed to brief SDS and JE on current concern and also pass the guidance to the GPWSC, It will create two way communications leading to better understanding and empowerment for the system sustainability.
Regular water Supply	• Work out the most feasible way of water supply, appropriate with duration, time, quality and quantity with the community/GPWSC. • Alternative power supply arrangements are required for restoring regular water supply (could be solar based systems in select panchayats wherein electricity supply is an issue).

	• Inter departmental coordination may also be required for the supply of uninterrupted electricity supply during the fixed timings of water supply.
Shortage of Staff and Non availability of permanent structure at Block Level	• Placement of staffs as per guideline of NBA & NRDWP. Each district should have DWSM consultants and Block level structure could be established by placing Block Resource Representatives. The junior level staff with basic knowledge and capacity and establishment of the Block Resource Centers would need to be taken up at the earliest. • Appointments of the positions having direct social impact should be done on priority, keeping the considerations of required qualifications in mind.
Soft Skill Among staffs	• The augmentation of soft skills in staff posted at different level of implementation would need to be done so that better service delivery is attained.
Equity and inclusion	**Vulnerability Inclusion Plan for ensuring Special Assistance** to be taken up for connecting households with sewer (1) Policy level decision: This would need to be taken by the by the SWSM. (2) Identification of households/ individuals whose sanitation need is yet to be met. These households will then need to be provided with the basic service level by giving them preference in resource allocation. Identification is to be done by GPWSC with the help of Panchayat. The process could be wealth ranking and identify households as per criteria mentioned below. • Rural poor could be identified through wealth ranking- such households could be identified which are residing up to 200 square feet built-up area house dimension regardless of whether they live in or outside the slums, Households headed by Disabled or Females or Old aged (65+ years) persons and households which has no fixed income could also be considered. • The households without toilet could be linked with other Government Schemes like Nirmal Bharat Abhiyan, ST/SC Welfare Programmes etc. so that hygienic latrines could be constructed in their houses. Once toilet is constructed, they could be connected through pro poor policy which exists in Punjab (differential rates for water & sewer connection). The suggested strategy could built upon using basic requirements: a. Poor households without toilet b. Vulnerable (homeless, migrants, disabled, etc.) whose sanitation needs are yet to be met • Households having septic tank will also need special assistance ○ Adequate communication on why sewer connection is important- responsibility to the communication agency and Parshads ○ GPWSC to ensure follow up for 100% connection (3) Simplify procedures of taking connection and any proof of residence such as ration cards, ID cards, Aadhar Cards could be considered sufficient to provide a connection. Also availability of application forms in GPWSC's Office (4) For achieving 100% sewer connections, following benefits could be extended to the households having septic tank & HH having no sewer connection • 50% Subsidy to the houses submitting application within15 days of implementation • 25% subsidy to the houses submitting application up to 30 days of implementation • 10% penalty to the houses submitting application after 31 days of

	implementation Wards/Panchayats with 100% connection within 60 days of implementation of project could be considered as better panchayats could be awarded and GPWSCs could be rewarded for 100% connection.
Empowering GPWSCs	• GPWSC members should be empowered and mandatorily women members of the GPWSCs need to be empowered at different levels. The whole idea will be going a step ahead than initiating planning and implementation by the village level institution involving community especially women, in following activities: – Motivating community for taking part in water and sanitation management for sustainability of service delivery so that financial viability of the schemes is not affected. – Should be trained in Participatory Development Models – They should play an active role in the planning, implementation and management of W&S services including domestic waste disposal. – They also need to be involved in dialogue with the community for ensuring piped water connections/ sewer connection, timely payment of tariff and management support. – It is important that each village GPWSCs and PRIs have their adequate participation and they are also trained for supporting service delivery. – Appropriate and regular IEC will also be equally important.
Delay in project delivery	• Project Management Unit is to establish good rapport with the Government of India and State DWSCs for timely release of funds and sanctioning of contracts respectively. • Project delivery in Mission mode so that Project has a complete structure up to the level of panchayat and able to monitor the project closely.
Contamination of Ground Water	• Capacity building of DWSCs officials on soft skills so that communication on technical aspects could be delivered to the community. • Hiring of professional agencies for developing and implementing communication strategy for sanitation, hygiene, and conjunctive use of water. • Hiring a competent agency for research and combating Uranium contamination.
Political influence	• Community mobilisation and empowerment so that they are able to identify the requirements related to water, sanitation, health and hygiene and not come under any such influence.
Grievance Redressal	Grievance Redressal was also found to be an area of concern and will remain same if not addressed regularly. • The SPMC will function as a supervisory body in the process of grievance redressal. The primary responsibility of addressing grievances will be vested with the sub-divisional level or DPMC level. The issue of transparency, judicious and timely actions with respect to addressing grievances will be regulated by the SPMC. • It is suggested that the divisional office headed by the SE takes the responsibility or authority to address grievances or a Grievance Redressal Officer is placed at the District level with the dedicated Toll Free number for registering complaints. This official would be responsible for responding to each local level query and provide information about the new projects and other related activities carried out at panchayat level. • This officer will also register local level complaints and will be responsible for attending these complaints well within 7 working days. These units could act as customer care units at local level so that community can easily access them for

	better services. Grievance Redressal Officer will be responsible for reporting to the SPMC. • The activities of each Grievance Redressal Office should be monitored by the reporting official of SPMC on monthly basis. • Some mechanism of feedback by GPWSC/ Social Members who had some grievance needs to be captured Using mobile based application to track real base progress and social audit for citizen feedback. Existing grievance management system will be enhanced to cover grievance during entire project cycle. The Grievance would be addressed either on line/ same toll free number/ calling back mechanism to 10% of the beneficiaries who had grievance to confirm the status of problem, duration of problem remedial, satisfaction level, any issues, etc.

Source: MM Study

9.3 Social Management action plan

Project has prepared a Social Management Framework to ensure sustainable social development of DWSS Punjab's endeavour of providing safe drinking water to the community. For effective social management action plan is suggested in the table below. This will ensure that all investment will adhere to the national, state and local regulatory requirements during project design, implementation and operation stage.

The purpose of the Social Management Framework (SMF) is to facilitate the management of social issues therefore, would be used as an umbrella by the PRWSS program and all implementing agencies while preparing and/ or appraising, approving and executing the investments. Though there will be no requirement of land acquisition as land has to be provided by the panchayat however, the SMF include some specific guidelines which need to be adhered by the panchayat and its action will be monitored by the Divisional unit and SPMC. As part of SMF, Gender Action Plan for mainstreaming gender and Vulnerable Peoples Development Plan for inclusion of vulnerable and destitute is also suggested, detailed below.

Table 9.2: Social Management Action Plan

Social issues	Evidences	Social Management Actions	Project Stage	Responsibility

Inclusion and Equity with focus on vulnerable groups	• All SC habitations are not covered with functional piped water supply schemes
	• Flat rate billing is an issue for poor, as they are subsidizing the rich
	• Households without water connection
	• Households without toilet
		• Motivation and Awareness to ensure inclusion
		• Meeting of GPVWSC
		• Socio-economic Survey (socio-cultural resource mapping and infrastructural survey) for preparing socio-economic baseline
		• Decision making in gram sabha on
		  • Inclusion of vulnerable through Vulnerable Peoples Development Plan as **detailed in this chapter below.**
		  • Implementing Gender mainstreaming Plan (Gender Action Plan is
			Pre-planning phase	SPMC/SWSM/DWSM/Division/PWSC

	• Households with pit toilet or septic tank toilets are disinterested to be linked with sewerage.	detailed below) • Habitation/ Village/ GP Level meetings for mobilization, using PRA and documentation of these activities • Mobilizing and sensitizing communities for contributions and collecting contributions		
		• Mobilizing and sensitizing communities for contributions and collecting contributions • Volumetric billing with telescopic tariff • Meeting of GPVWSC	Planning Phase	SPMC/SWSM/DWSM/Division/PWSC
		• Joint Inspection done. Trail runs completed ensure that all components are functioning properly and services cover all households.	Implementation	Division/PWSC
		• Discussions with community members on O&M plan and budget • Conduct GP/ VWSC meeting to fix user fees in a participative manner. • Appointed operator /assistant collects user fees • Ensure sufficient spares are available and village resource persons are trained in O&M	Operation & Maintenance	Division/PWSC
Participation	• Community participation in decision making was less • Participation of SC and women is found negligible • Awareness level of community on Water & Sanitation issues was found limited on, water quality, health & hygiene etc.	• Project kicks off- curtain raiser- with a district workshop • Appointment of social mobilisers for enhancing participation • Door-to-door/ Ward/ Village/ GP level campaigns on water and sanitation • Orientation of GP/Villages	Pre-planning phase	SPMC/SWSM/DWSM/Division
		• Enhancing sustainability of the scheme by increasing willingness to pay for the services	Planning phase	Division
		• Joint Inspection done. Trail runs completed ensure participation of all households.	Implementation phase	Division/GPWSC
		• Conduct an SME exercise after three months of commissioning with participation of community.	Operation & Maintenance	Division/GPWSC
Transparency	Community was not found aware about the ongoing schemes indicating limited Transparency	• Prioritization based on selection criteria done • GP/ villages are informed of the selection • Agreement arrived at with regard to technology options, location of facilities, etc.	Pre Planning	• SPMC/SWSM/DWSM • Division/GPWSC/Contractor
		• Discussion about DPR and scheme facilities in GP VWSC meeting Gram Sabha approval and Consultation in case of Scheduled Areas and documentation of	Planning	Division/GPWSC/Contractor

		approval • Transparency wall/Display Boards are maintained • Public disclosure of information starting from pre planning phase to O&M • Disclosure of finalized plans, total contribution details, project timelines, completion details with phases		
		• Display of Implementation- status report, funding sources and amount • Post Implementation-details of O&M, disclosure of accounts etc	Implementation	Division/GPWSC/Contractor
		• Conduct a Social Audit exercise six months of commissioning with participation of community.	Operation & Maintenance	GPWSC/Division
Accountability	• Accountability of GPWSCs was found an issue in slipped back habitations and this is also impacting the O&M of the ongoing schemes • Accountability of service provider was found an issue since community was not happy with the level of services	• Department to share information in public domain and GoP website about project • Soft skill augmentation among the staffs to handle social component	Pre planning	SPMC/SWSM/DWSM/Division
		• Community Monitoring (Social Audit) • Implementation of Mobile Application • Redressal of objections/ complaints and considering suggestions regarding scheme interventions	Planning	Division/GPWSC
		• Redressal of objections/ complaints and considering suggestions regarding scheme interventions • Progress and Quality Monitoring by GP/ VWSC	Implementation	Division/ GPWSC
		• Joint Inspection done. Trail runs completed ensure that all components will be completed within the pre-decided time frame	Implementation	Division/ GPWSC
		• Ensure sufficient spares are available and village resource persons are trained in O&M	Operation & maintenance	Division/ GPWSC

Land Acquisition	• Land has to be provided by the panchayat free of cost out of panchayat land
	• Land was found available with the panchayats. Hence, availability of land may not be an issue
		• Panchayat to ensure that the provided land is in panchayats possession and has no encroachment
		• Gram Sabha to pass resolution on land transfer
		• Through land will not be acquired but Panchayats will require to ensure that;
		  • there is not involuntary land acquisition,
		  • land under possession of panchayat is used for the project purpose,
		  • the land has no encroachment, it is free from
			Pre-planning	Division/ GPWSC

		squatters it has no other claims of encumbrances • selected land has be approved by the gram sabha (by the community) after ensuring that water is available there; • land transfers (if any) should be completed and land title should be in the name of GP/GP-WSC through registered sale deed or MOU; and • provision will be made for redressal of grievances (ROG). • No land transfer will be accepted from land owner whose holding is less than the minimum economical viable stipulated size i.e 2.5 acres. • Further, the Divisional Unit will arrange for an examination of all land transactions by an independent agency before according approval.		
		• Joint Inspection done. Trail runs completed ensure that no land all components are functioning properly and services cover all is taken violating the said criteria.	Planning Implementation	Division/ GPWSC

9.4 Gender Action Plan (GAP)

Gender equality and equity are indispensable for realization of Millennium Development Goals especially relating to water and sanitation. Women and girls are the primary collectors, transporters, users and managers of water in the household. They are also the promoters of home and community based sanitation activities. They bear the maximum impact of inadequate, deficient or inappropriate water and sanitation services. This strategy recognizes women's concerns and perspectives in water and sanitation services and paves way for enlisting active participation of men and women to share the responsibility for handling the services.

The study covered a sample of 1990 women (1918 contacted through household interaction and 72 through focus group discussion). Of the 1110 belonged to Schedule caste and another 323 to other backward class. During study it was observed that 1/3 of the GPWSC members are women but they have limited knowledge on its operation and management. This shows inadequate empowerment which is not allowing them to participate actively in the community meetings. During discussions limited participation of women in household decision making was also observed. Participation could also be limited due to their involvement in household chores or due to hesitation in public speaking (in front of their elders). This clearly indicates that gender issues need to be addressed in order to bring the females at par with their male counterparts in the State.

The objective of sector program can only be achieved when both the gender works together and takes the activities forward for achieving sustainability. Considering this the study is proposing a gender inclusion plan which could be referred while implementing the project scheme cycle.

Table 9.3: Gender Action Plan

Activity	Action & Measurable indicators	Responsibility	Time Frame	Source of Information
Outcome : Inclusion of Gender in implementing Sector Wide Approach Policy in Punjab				
Social and Gender indicators are integrated with Management Information System (MIS)	• Elaborate Project MIS is established including baseline indicators on social and gender indicators and gender disaggregated data collected, analysed and key findings disseminated to address implementation gaps. • Impact of the financing facility in enhancing health & nutrition benefit due to improved water & sanitation services (especially on women) evaluated	• SPMC	• Year 1 onwards	• Baseline Survey data • • MIS
Gender mainstreaming principles are integrated in the RWSS policy strategy framework	• ASHA, ANM, AWW and female teachers are mandatorily involved in the GPWSC • At least one third women participation in GPWSC (Baseline: availability of 1/3 women in GPWSC). • All the women GPWSC members are included for sensitization workshops and training • During O&M, women groups should be considered for tariff collection, maintenance, etc. • Gender balance shall govern recruitment of the staff from the private sector in Division and SPMC. • Due representation of women shall be ensured on all governance bodies at all the levels. • At least 50% of the social mobilisers are women	• SPMC	• Year 1 on wards	• Project Management Information System • • Community mobilisation report in SM's activity report
Community mobilization is adopted as integral part of the project	• Gender balance participation in Project Awareness Promotion Campaigns • Women concerns in the selection of sub-projects • Women to play major role in technology choices and preparation of village water supply and sanitation plans • 50% of Social Mobilisers and Social Development Specialists are female • 33% of GPWSC board members to be female • At least 33% of sanitation and hygiene training participants to be female.	• SPMC/ Division	• Year 1 onwards	• Project Management Information System • • Community mobilisation report in SM's activity report

Activity	Action & Measurable indicators	Responsibility	Time Frame	Source of Information
Outcome : Inclusion of Gender in implementing Sector Wide Approach Policy in Punjab				
Develop Capacity of key stakeholders implementing the project including community partners on gender component in Water & Sanitation	• Training program on gender sensitivity for the officials of SPMC, SPMU, Division, GPWSC, GP etc. • At least 30% training participants are women • Target: 1 workshop/year. 100% of relevant staff members to participate in the workshops	• SPMC/ Division	• Year 1 onwards	• Project Management Information System • • Training Completion Report
Achieving sustainability in Water Supply & Sanitation Coverage	• Women members participate in the technology choice and technical assessment process • 33% of O&M training participants are women • Participation of women in financial management of the Water & Sanitation System O&M • Individual sanitation blocks (for poor) should consider norms of Safety, privacy and convenience • Messages for Water use and hygiene improvement trainings should be designed for both sexes • Women are trained in O&M of household latrines and also considered for mason training in rural sanitary marts	• SPMC/Division	• Year 1 onwards	• Project Management Information System •
GAP- Gender Action Plan, MIS- Management Information System, SM- Social Mobiliser, SPMC- State Programme Management Cell DPMC- District Programme Management Cell, BRC- Block Resource Coordinator				

Source : MM study

9.5 Vulnerable Peoples Development Plan for inclusion of BPLs, women, landless and disabled people's

The suggested strategy could be adopted for poor & vulnerable (landless, homeless, migrants, disabled, etc.) whose water & sanitation needs are yet to be met.

1. **Policy level decision**: This would need to be taken by the by the SWSM.

2. **Identification of households/ individuals** whose sanitation need is yet to be met. These households will then need to be provided with the basic service level by giving them preference in resource allocation. Identification is to be done by GPWSC with the help of Panchayat. The process could be wealth ranking and identify households as per criteria mentioned below.

- Rural poor could be identified through wealth ranking- such households could be identified which are residing up to 200 square feet built-up area house dimension, Households headed by Disabled or

Females or Old aged (65+ years) persons, landless households and households which has no fixed income could also be considered.

- The households without water connection should be provided with a subsidized connection as per GoP pro poor policy (existing) (differential rates for water & sewer connection)
- The households without toilet could be linked with other Government Schemes like Nirmal Bharat Abhiyan, ST/SC Welfare Programs etc. so that hygienic latrines could be constructed in their houses. Once toilet is constructed, they could be connected through pro poor policy which exists in Punjab (differential rates for water & sewer connection).
- Households having septic tank will also need special assistance
  - Adequate communication on why sewer connection is important- responsibility to the communication agency and GPWSCs
  - GPWSC to ensure follow up for 100% connection

3. **Simplify Procedures** of taking connection and any proof of residence such as ration cards, ID cards, Aadhar Cards could be considered sufficient to provide a connection. Also availability of application forms in GPWSC's Office

4. For **achieving 100% sewer connections**, following benefits could be extended to the households having septic tank & HH having no sewer connection

- 50% subsidy to the houses submitting application within15 days of implementation
- 25% subsidy to the houses submitting application up to 30 days of implementation
- 10% penalty to the houses submitting application after 31 days of implementation

5. **Panchayats/Wards with 100% connection within 60 days of implementation of project** could be considered as better panchayats could be awarded and GPWSCs could be rewarded for 100% connection.

10 Scheme Cycle

Government of Punjab's is endeavouring towards strengthening and decentralized management of water supply and sewer schemes across the rural habitation, which is consistent with State's Water Policy. The idea is to deliver the services (water & sanitation) through a demand driven approach wherein GPWSSCs will be primarily responsible to deliver services. They are supposed to be representing all social groups. As per policy "no project component (other than household toilets) can be implemented without an active GPWSSC in place in any village". Hence, it is mandatory that GPWSSC are formed and take responsibility of managing the schemes (water & sanitation).

There are 3 major components in the project;

- Component 1: Improved livability of Villages
- Component 2: Inclusive Water and Sanitation Services delivered at household level
- Component 3: Improved Water Quality

The above mentioned components are further divided into sub components and activities. However, for the purpose of scheme cycle the activities could be categorised as;

- Single Village Scheme for water supply
- Multi Village Scheme for water supply
- Scheme cycle for Sewerage with treatment system

Scheme cycle for different type of schemes is mentioned below.

10.1 Single Village Scheme (SVS) for water supply

The time bound activities scheme cycle of single village scheme is detailed below

Table 10.1: Scheme Cycle of Single Village Scheme (SVS) for water supply

Sr. No	Activities	Responsibility	Time frame(in days)	Objectively verifiable indicators
Pre-planning:---------- Duration 0 to 3 months				
1	Campaigns at State, District & Block level	• State level Communication Specialist • Sr. Social Development Specialist	1st month	• Awareness level of community is improved
2	Social Development Specialists (SDS) are recruited	• SPMC	1st month	
3	Social mobilisers (SM)are recruited	• SE/EE • GP	1st month	
4	Assigning divisions and villages to the SDS & SM	• SPMC • DPD	1st month	
5	Appointed staffs (SDS) are trained and oriented to the project requirement	• EE (with support from Experts) • Sr. Social Development Specialist	1st month	

Sr. No	Activities	Responsibility	Time frame(in days)	Objectively verifiable indicators
6	Appointed staffs (SM) are trained and oriented to the project requirement	• JE/SDE • Social Development Specialists	1st month	
7	Initiate IEC campaign at village level	• JE /SDE/IEC specialist	1st month	
8	GP to pass resolution showing willingness to adopt the scheme along with providing panchayat land free of cost for water works	• Social Development Specialist)	1st month	
9	Collection of resolution from GP for adopting the scheme along with willingness to provide fee land for water works	• Social Development Specialist)	1st month	
10	Selection of GP through transparent Processes and procedures	• EE	1st month	• Policy for criteria adopted for selecting the GP Participatory methods applied while selecting the GP
11	Intimation to selected GP's and to the GP's which are not selected with reasons through letters, and community meetings	• EE • Social Mobilisers	1st month	
12	Formation of the GPWSC (if not already existing) or strengthening (if already existing) as standing committee of in the Gram Sabha meeting	• JE /SDE/IEC specialist • Social Mobilisers	2nd month	• GPWSCs formed
13	Displaying List of GPWSC members along with their phone numbers through 2-3 wall writings at public places	• GP	2nd month	• Transparency
14	Opening of separate bank account by GPWSC GPWSC and addition Govt signatories SDE and JE in charge of the scheme	• JE /SDE • GPWSC • Social Mobilisers	2nd month	• Separate Bank Accounts opened
15	Stakeholder mapping in the village to identify key stakeholder groups, undertake PRA and prepare social mapping and initiate community mobilisation	• Social Mobilisers	2nd month	•
16	Collection of Rs 50000/- or 50% of community contribution (whichever is less)	• GPWSC • JE /IEC specialist • Social Mobilisers	2nd month	• To check the demand
17	Selection of suitable Panchayat Land by Technical staff among various options offered GP arranges land for construction of units pertaining to water supply including water treatment plan (required in case of supply of surface water)	• EE/SDE/JE • Social Mobilisers	2nd month	• GP provides land for construction
18	Digital Survey done	• Agency appointed by EE	2nd month	Digital survey done
19	Training and orientation of GPWSC	• Social Mobilisers / Social Development	3rd month	Awareness level of SM is improved and they proceed for training of GP/GPWSC members

Sr. No	Activities	Responsibility	Time frame(in days)	Objectively verifiable indicators
		Specialist • IEC • JE		
20	Tripartite MOU (Agreement) (for SVS) signed among EE, GP and GPWSC	• EE • GP • GPWSC	3rd month	A copy of agreement is available in GPWSC's office
21	Habitation level IEC campaigns and community mobilization 1.Water Quality testing camp of existing sources (1 camp for 50 houses) 2.Information on health and hygiene issues 3.Exposure Tour to nearby existing role model village	• JE • IEC team • Social Mobilisers	3rd month	Awareness level of community is improved
22	Special training camp in the village for members of GPWSC from SC /Women /Poor category explaining their roles and responsibilities in the working of GPWSC	• JE • Social Mobiliser	3rd month	Equity and Gender inclusion
23	Special training to office bearers of GPWSC like Chairman, Secy, Cashier and Technical member of GPWSC(JE in charge) on their role and responsibilities	• SDE/JE • Social Mobiliser	3rd month	
24	Focussed group discussion in the village (@ 1 FGD per 50 houses) explaining salient Swap principles like community contribution, user charges , GPWSC bye laws etc	• SDE/JE • IEC team • Social Mobiliser	3rd month	
Planning Phase:---------- Duration 4 to 9 months				
1	Detailed Scheme Report prepared based on digital survey	• Agency hired by EE	4th month	DSR ready
2	Checking of relevant portions of the DSR	• Social Mobilisers	4th month	
3	Sharing and checking of DSR with the GPWSC and revision if require	• EE • GP • GPWSC • Social Mobilisers	4th month	
4	GPWSC Resolution approving the scheme technology and estimates	• GPWSC	4th month	Approved plan is ready for submission
5	Submission of SVS proposals to Division (EE) for administrative approval as per guideline	• GPWSC	4th month	Submission of proposal to Government
6	Receipt of Administrative Approval of SVS Water Schemes by GPWSC	• Division (EE)	5th month	Proposal approved
7	Preparation of Detailed Project Report (DPR) by Division (EE) for technical sanction as per GoP guidelines	• Division (EE)	6th month	DPRs ready for submission
8	Technical Sanction of SVS as per GoP guidelines	• EE/SE/CE	6th month	DPRs ready for action
9	Collecting 100% community contribution	• GPWSC • Social	6th month	Collection register

Sr. No	Activities	Responsibility	Time frame(in days)	Objectively verifiable indicators
		Mobilisers		
10	Deposit users contribution in GPWSC account	• GPWSC/JE	6th month	Fund deposition receipt
11	Display of details of scheme, contribution collected	• GPWSC • Social Mobilisers	6th month	Submission of proposal
12	Orientating of GPWSC members on bidding process and their responsibility thereof during implementation phase	• EE • GPWSC • Social Mobilisers	6th month	
13	implementation phase proposal for monitoring of implementation	• GPWSC • Social Mobilisers	6th month	Submission of document
14	Approval of bid document by the competent authority	• EE/SE/CE	6th month	
15	Receipt of 1st instalment of 60% of the scheme cost by GPWSC	• EE/SPMC	7th month	
16	Sale of bid documents (e-tendering) by GPWSC through EE.	• EE • GPWSC	7th month	Document to be publish
17	Receipt of tenders from bidders	• EE • GPWSC	One month after sale	
18	Opening of Bids	• EE • GPWSC	One month after sale	
19	Evaluation of the bids	• EE • GPWSC	One week after opening of tenders	
20	Selection of construction contractor(s) by GPWSC through EE	• EE • GPWSC	8th month	Contractor selected
21	Award letter to the selected contractor and disclosure of selection to all the bidders	• EE • GPWSC	9th month	Work allotted
22	Signing of Contract between the GP/ GPWSC and the selected contractor	GPWSC	9th month	Contract signed
23	Organising regular meetings by GPWSC documentation of minutes of meeting	GPWSC	Continuous after formation	Minutes of the concerned Meetings
24	Community monitoring by GPWSC members social audit committee coordinating with EE	SAC	9th month	SAC report submitted to GPWSC and thereof to SPMC through concerned EE
Implementation Phase:---------- Duration 10 to 18 months (depending on the type of technology selected)				
1	IEC on water, hygiene and environmental sanitation continue coordinated by IEC team,	• IEC team • SM	Continuous activity	Quarterly report on schedule of communication
2	Displaying Key Information (project details, details of members, completion timeline, emergency contact details)	• Contractor • SM	In 10th month and then maintained	
3	Construction of water supply schemes	GPWSC	18th month	
4	Supervising Construction of Water Supply Schemes	EE GPWSC Social Mobilisers	After construction started on day to day basis	Reports submitted
5	Submission of bills by GPWSC with its recommendation duly entered by JE for	JE GPWSC	As per payment terms &	

Sr. No	Activities	Responsibility	Time frame(in days)	Objectively verifiable indicators
	passing to EE		condition mentioned in the contract	
6	Passing of bills by EE and sending it back to GOWSC with recommendation for release of payment	EE	As per payment terms & condition mentioned in the contract	
7	Releasing payments to contractors by GP/ GPWSC	GPWSC	As per payment terms & condition mentioned in the contract	
8	Financial Audit of the expenditure auditor/consultant appointed by SPMC after minimum 60% of the released fund is consumed	SPMC		
9	Receipt of 2nd instalment of 30% of the scheme cost to GPWSC once 60% of the first instalment is consumed.	EE/SPMC	14th month	
10	Technical and Social Audit to check that the water system works as intended , vulnerable inclusion plan implemented as intended etc.,	SAC	18th month	Social Audit Report to be submitted to SPMC
11	Preparation of the Project Completion Reports (PCRs) and submission	EE GPWSC	18th month	IPCR ready
12	PCR submitted to SPMC by EE for approval	SPMC	18th month	PCR approved
13	Third party audit after acceptance of PCRs by the consultants appointed by SPMC.	SPMC	18th month	Third party audit report available
14	Annual disclosure of accounts by GPWSC (collection, expenditure, list of households not paying the bills regularly	GPWSC Social Mobilisers	Each year	Display boards available at GPWSC
15	Disclosure of details (technical & financial) by GPWSC	GPWSC Social Mobilisers	18th month	
Operation & Maintenance Phase:---------- Duration 19 to 27 months and onwards				
1	Training of GPWSC members on O&M Activities	EE	19th month	Training and hand holding report
2	IEC on water consumption, wastage, meter connection coordinated by IEC team.	• IEC team • SM	Continuous activity	Quarterly report on schedule of communication
3	Handholding activities of GPWSCs members for O&M to ensure sustainability	EE GPWSC Social Mobilisers	From 19th - 27th month	Monitoring & evaluation report to be done by GPWSC & SDE
4	Fixing user fees by GPWSCs	GPWSC Social Mobiliser	19th month	Written resolution issued by MVSWSC
5	Fixing Bulk Water Tariff	GPWSC	19th month	Written resolution issued by MVSWSC
6	Maintaining Books of Accounts	GPWSC	Monthly activity	
7	Monitoring for Sustainability- Continuous IEC activities with monitoring at household and community level.	IEC team MIS team Social Mobiliser	Monthly activity	Monitoring report
8	Impact Evaluation- 100% of households with	SPMC	27th month	Evaluation report

Sr. No	Activities	Responsibility	Time frame(in days)	Objectively verifiable indicators
	water connection, use and maintain them.			
9	Collecting user fees by GPWSC	GPWSC	Monthly activity	
10	GPWSC taking over works from EE	EE	27th month	Internal report on transfer of responsibility
11	Exit of Social mobilisers from GP	SPMC	27th month or after 30 months	
12	Technical Back stopping by Technical Department (respective Divisions)	EE	After	

Source: MM Study

10.2 Multi Village Scheme (MVS) for water supply

The time bound activities scheme cycle of multi village scheme is detailed below

Table 10.2: Scheme Cycle of Multi Village Scheme (MVS) for water supply

Sr. No	Activities	Responsibility	Time frame(in days)	Objectively verifiable indicators
Pre-planning:---------- Duration 0 to 3 months				
1	Campaigns at State, District & Block level	• State level Communication Specialist • Sr. Social Development Specialist	1st month	• Awareness level of community is improved
2	Social Development Specialists (SDS) are recruited	• SPMC	1st month	
3	Social mobilisers (SM)are recruited	• SE/EE • GP	1st month	
4	Assigning divisions and villages to the SDS & SM	• SPMC • DPD	1st month	
5	Appointed staffs (SDS) are trained and oriented to the project requirement	• EE (with support from Experts) • Sr. Social Development Specialist	1st month	
6	Appointed staffs (SM) are trained and oriented to the project requirement	• JE/SDE • Social Development Specialists	1st month	
7	Initiate IEC campaign at village level	• JE /SDE/IEC specialist	1st month	
8	GP to pass resolution showing willingness to adopt the MVS scheme along with providing panchayat land free of cost for water works	• Social Development Specialist)	1st month	
9	Collection of resolution from GP for adopting the scheme along with willingness to provide fee land for water works	• Social Development Specialist)	1st month	

Sr. No	Activities	Responsibility	Time frame(in days)	Objectively verifiable indicators
10	Selection of GPs through transparent Processes and procedures	• EE	1st month	• Policy for criteria adopted for selecting the GP Participatory methods applied while selecting the GP
11	Intimation to selected GP's and to the GP's which are not selected with reasons through letters, and community meetings	• EE • Social Mobilisers	1st month	•
12	Formation of Multi-Village Water and Sanitation Committee (MVSWSC) for MVS (responsibility to form will be with DPMC	• JE /SDE/IEC specialist • Social Mobilisers	2nd month	• GPWSCs formed
13	Displaying List of MVGPWSC members along with their phone numbers through 2-3 wall writings at public places	• GP	2nd month	• Transparency
14	Opening of separate bank account by Multi Village GPWSC and addition Govt signatories SDE and JE in charge of the scheme	• JE /SDE • GPWSC • Social Mobilisers	2nd month	• Separate Bank Accounts opened
15	Stakeholder mapping in the village to identify key stakeholder groups, undertake PRA and prepare social mapping and initiate community mobilisation	• Social Mobilisers	2nd month	•
16	Collection of Rs 50000/- or 50% of community contribution (whichever is less)	• GPWSC • JE /IEC specialist • Social Mobilisers	2nd month	• To check the demand
17	Selection of suitable Panchayat Land by Technical staff among various options offered GPs arranges land for construction of units pertaining to water supply including water treatment plan (required in case of supply of surface water)	• EE/SDE/JE • Social Mobilisers	2nd month	• GP provides land for construction
18	Digital Survey done	• Agency appointed by EE	2nd month	Digital survey done
19	Training and orientation of MVGPWSC	• Social Mobilisers / Social Development Specialist • IEC • JE	3rd month	Awareness level of SM is improved and they proceed for training of GP/GPWSC members
20	Tripartite agreement (for MVS) signed between DPMC and participating GPs	• EE • GP • MVGPWSC	3rd month	A copy of agreement is available in GPWSC's office
21	Habitation level IEC campaigns and community mobilization • Water Quality testing camp of existing sources (1 camp for 50 houses) • Information on health and hygiene	• JE • IEC team • Social Mobilisers	3rd month	Awareness level of community is improved

Sr. No	Activities	Responsibility	Time frame(in days)	Objectively verifiable indicators
	issues • Exposure Tour to nearby existing role model village			
22	Special training camp in the village for members of MVGPWSC from SC /Women /Poor category explaining their roles and responsibilities in the working of GPWSC	• JE • Social Mobiliser	3rd month	Equity and Gender inclusion
23	Special training to office bearers of GPWSC like Chairman, Secy, Cashier and Technical member of MVGPWSC(JE in charge) on their role and responsibilities	• SDE/JE • Social Mobiliser	3rd month	
24	Focussed group discussion in the village (@ 1 FGD per 50 houses) explaining salient Swap principles like community contribution, user charges , MVGPWSC bye laws etc	• SDE/JE • IEC team • Social Mobiliser	3rd month	
Planning Phase:---------- Duration 4 to 9 months				
1	Detailed Scheme Report prepared based on digital survey	• Agency hired by EE	4th month	DSR ready
2	Checking of relevant portions of the DSR	• Social Mobilisers	4th month	
3	Sharing and checking of DSR with the MVGPWSC and revision if require	• EE • GPs • MVGPWSC • Social Mobilisers	4th month	
4	GPWSC Resolution approving the scheme technology and estimates	• GPWSC	4th month	Approved plan is ready for submission
5	Submission of MVS proposals to Division (EE) for administrative approval as per guideline	• GPWSC	4th month	Submission of proposal to Government
6	Receipt of Administrative Approval of SVS Water Schemes by MVGPWSC	• Division (EE)	5th month	Proposal approved
7	Preparation of Detailed Project Report (DPR) by Division (EE) for technical sanction as per GoP guidelines	• Division (EE)	6th month	DPRs ready for submission
8	Technical Sanction of MVS as per GoP guidelines	• EE/SE/CE	6th month	DPRs ready for action
9	Collecting 100% community contribution	• GPWSC • Social Mobilisers	6th month	Collection register
10	Deposit users contribution in MVGPWSC account	• MVGPWSC/JE	6th month	Fund deposition receipt
11	Display of details of scheme, contribution collected	• MVGPWSC • Social Mobilisers	6th month	Submission of proposal
12	Orientating of MVGPWSC members on bidding process and their responsibility thereof during implementation phase	• EE • MVGPWSC • Social Mobilisers	6th month	
13	implementation phase proposal for monitoring of implementation	• MVGPWSC • Social	6th month	Submission of document

Sr. No	Activities	Responsibility	Time frame(in days)	Objectively verifiable indicators
		Mobilisers		
14	Approval of bid document by the competent authority	• EE/SE/CE	6th month	
15	Receipt of 1st instalment of 60% of the scheme cost by MVGPWSC	• EE/SPMC	7th month	
16	Sale of bid documents (e-tendering) by MVGPWSC through EE.	• EE • GPWSC	7th month	Document to be publish
17	Receipt of tenders from bidders	• EE • GPWSC	One month after sale	
18	Opening of Bids	• EE • GPWSC	One month after sale	
19	Evaluation of the bids	• EE • GPWSC	One week after opening of tenders	
20	Selection of construction contractor(s) by MVGPWSC through EE	• EE • GPWSC	8th month	Contractor selected
21	Award letter to the selected contractor and disclosure of selection to all the bidders	• EE • MVGPWSC	9th month	Work allotted
22	Signing of Contract between the GPs/ MVGPWSC and the selected contractor	MVGPWSC	9th month	Contract signed
23	Organising regular meetings by MVGPWSC documentation of minutes of meeting	MVGPWSC	Continuous after formation	Minutes of the concerned Meetings
24	Community monitoring by MVGPWSC members social audit committee coordinating with EE	SACs	9th month	SAC report submitted to GPWSC and thereof to SPMC through concerned EE
Implementation Phase:---------- Duration 10 to 18 months (depending on the type of technology selected)				
1	IEC on water, hygiene and environmental sanitation continue coordinated by IEC team,	• IEC team • SM	Continuous activity	Quarterly report on schedule of communication
2	Displaying Key Information (project details, details of members, completion timeline, emergency contact details)	• Contractor • SM	In 10th month and then maintained	
3	Construction of water supply schemes	GPWSC	18th month	
4	Supervising Construction of Water Supply Schemes	EE GPWSC Social Mobilisers	After construction started on day to day basis	Reports submitted
5	Submission of bills by GPWSC with its recommendation duly entered by JE for passing to EE	JE GPWSC	As per payment terms & condition mentioned in the contract	
6	Passing of bills by EE and sending it back to GOWSC with recommendation for release of payment	EE	As per payment terms & condition mentioned in the contract	
7	Releasing payments to contractors by GP/ GPWSC	GPWSC	As per payment terms & condition mentioned in	

Sr. No	Activities	Responsibility	Time frame(in days)	Objectively verifiable indicators
			the contract	
8	Financial Audit of the expenditure auditor/consultant appointed by SPMC after minimum 60% of the released fund is consumed	SPMC		
9	Receipt of 2nd instalment of 30% of the scheme cost to GPWSC once 60% of the first instalment is consumed.	EE/SPMC	14th month	
10	Technical and Social Audit to check that the water system works as intended , vulnerable inclusion plan implemented as intended etc.,	SAC	18th month	Social Audit Report to be submitted to SPMC
11	Preparation of the Project Completion Reports (PCRs) and submission	EE GPWSC	18th month	IPCR ready
12	PCR submitted to SPMC by EE for approval	SPMC	18th month	PCR approved
13	Third party audit after acceptance of PCRs by the consultants appointed by SPMC.	SPMC	18th month	Third party audit report available
14	Annual disclosure of accounts by GPWSC (collection, expenditure, list of households not paying the bills regularly	GPWSC Social Mobilisers	Each year	Display boards available at GPWSC
15	Disclosure of details (technical & financial) by GPWSC	GPWSC Social Mobilisers	18th month	
Operation & Maintenance Phase:---------- Duration 19 to 27 months and onwards				
1	Training of GPWSC members on O&M Activities	EE	19th month	Training and hand holding report
2	IEC on water consumption, wastage, meter connection coordinated by IEC team.	• IEC team • SM	Continuous activity	Quarterly report on schedule of communication
3	Handholding activities of GPWSCs members for O&M to ensure sustainability	EE GPWSC Social Mobilisers	From 19th -27th month	Monitoring & evaluation report to be done by GPWSC & SDE
4	Fixing user fees by GPWSCs	GPWSC Social Mobiliser	19th month	Written resolution issued by MVSWSC
5	Fixing Bulk Water Tariff	GPWSC	19th month	Written resolution issued by MVSWSC
6	Maintaining Books of Accounts	GPWSC	Monthly activity	
7	Monitoring for Sustainability- Continuous IEC activities with monitoring at household and community level.	IEC team MIS team Social Mobiliser	Monthly activity	Monitoring report
8	Impact Evaluation- 100% of households with water connection, use and maintain them.	SPMC	27th month	Evaluation report
9	Collecting user fees by GPWSC	GPWSC	Monthly activity	
10	GPWSC taking over works from EE	EE	27th month	Internal report on transfer of responsibility
11	Exit of Social mobilisers from GP	SPMC	27th month or after 30 months	
12	Technical Back stopping by Technical Department (respective Divisions)	EE	After	

Source: MM Study

10.3 Sewerage Scheme with Treatment Unit

The time bound activities scheme cycle of Sewerage Scheme with Treatment Unit is detailed below.

Table 10.3: Scheme Cycle of Sewerage Scheme with Treatment Unit

Sr. No	Activities	Responsibility	Time frame(in days)	Objectively verifiable indicators
Pre-planning:---------- Duration 0 to 3 months				
1	Campaigns at State, District & Block level	• State level Communication Specialist • Sr. Social Development Specialist	1st month	• Awareness level of community is improved
2	Social Development Specialists (SDS) are recruited	• SPMC	1st month	
3	Social mobilisers (SM)are recruited	• SE/EE • GP	1st month	
4	Assigning divisions and villages to the SDS & SM	• SPMC • DPD	1st month	
5	Appointed staffs (SDS) are trained and oriented to the project requirement	• EE (with support from Experts) • Sr. Social Development Specialist	1st month	
6	Appointed staffs (SM) are trained and oriented to the project requirement	• JE/SDE • Social Development Specialists	1st month	
7	Initiate IEC campaign at village level	• JE /SDE/IEC specialist	1st month	
8	GP to pass resolution showing willingness to adopt the sewerage scheme along with providing panchayat land free of cost for infrastructure to be constructed	• Social Development Specialist)	1st month	
9	Collection of resolution from GP for adopting the scheme along with willingness to provide fee land for sewerage and treatment plan works	• Social Development Specialist)	1st month	
10	Selection of GPs through transparent Processes and procedures	• EE	1st month	• Policy for criteria adopted for selecting the GP Participatory methods applied while selecting the GP
11	Intimation to selected GP's and to the GP's which are not selected with reasons through letters, and community meetings	• EE • Social Mobilisers	1st month	•
12	Strengthening of existing GPWSC on sanitation and sewerage aspects	• JE /SDE/IEC specialist • Social Mobilisers	2nd month	• GPWSCs formed
13	Displaying details about the sewerage	• GP	2nd month	• Transparency

Sr. No	Activities	Responsibility	Time frame(in days)	Objectively verifiable indicators
	scheme along with GPWSC members can be contacted for collecting more information with their phone numbers through 2-3 wall writings at public places			
14	Updating the separate bank account for sewerage scheme by GPWSC and addition Govt signatories SDE and JE in charge of the scheme	• JE /SDE • GPWSC • Social Mobilisers	2nd month	• Separate Bank Accounts opened
15	Stakeholder mapping in the village to identify key stakeholder groups, undertake PRA and prepare social mapping and initiate community mobilisation. Identification of households without toilet and link them to GOI,GOP schemes for toilet construction.	• Social Mobilisers	3rd month	•
16	Collection of Rs 50000/- or 50% of community contribution (whichever is less)	• GPWSC • JE /IEC specialist • Social Mobilisers	3rd month	• To check the demand
17	Selection of suitable Panchayat Land by Technical staff among various options offered GPs arranges land for construction of units pertaining to sewage treatment plan	• EE/SDE/JE • Social Mobilisers	3rd month	• GP provides land for construction
18	Digital Survey done	• Agency appointed by EE	3rd month	Digital survey done
19	Training and orientation of GPWSC	• Social Mobilisers / Social Development Specialist • IEC • JE	3rd month	Awareness level of SM is improved and they proceed for training of GP/GPWSC members
20	Tripartite agreement signed between DPMC and participating GPs	• EE • GP • MVGPWSC	3rd month	A copy of agreement is available in GPWSC's office
21	Habitation level IEC campaigns and community mobilization • Use of toilet • Why sewerage system is important • Information on health and hygiene issues • Exposure Tour to nearby existing role model village	• JE • IEC team • Social Mobilisers	3rd month	Awareness level of community is improved
22	Special training camp in the village for members of GPWSC from SC /Women /Poor category explaining their roles and responsibilities in the working of GPWSC	• JE • Social Mobiliser	3rd month	Equity and Gender inclusion
23	Special training to office bearers of GPWSC like Chairman, Secy, Cashier and Technical member of GPWSC(JE in charge) on their role and responsibilities	• SDE/JE • Social Mobiliser	3rd month	

Sr. No	Activities	Responsibility	Time frame(in days)	Objectively verifiable indicators
24	Focussed group discussion in the village (@ 1 FGD per 50 houses) explaining salient Swap principles like community contribution, user charges , GPWSC bye laws etc	• SDE/JE • IEC team • Social Mobiliser	3rd month	
Planning Phase:---------- Duration 4 to 9 months				
1	Detailed Scheme Report prepared based on digital survey	• Agency hired by EE	4th month	DSR ready
2	Checking of relevant portions of the DSR	• Social Mobilisers	4th month	
3	Sharing and checking of DSR with the GPWSC and revision if require	• EE • GPs • MVGPWSC • Social Mobilisers	4th month	
4	GPWSC Resolution approving the scheme technology and estimates	• GPWSC	4th month	Approved plan is ready for submission
5	Submission of sewerage proposals to Division (EE) for administrative approval as per guideline	• GPWSC	4th month	Submission of proposal to Government
6	Receipt of Administrative Approval of sewerage Schemes by GPWSC	• Division (EE)	5th month	Proposal approved
7	Preparation of Detailed Project Report (DPR) by Division (EE) for technical sanction as per GoP guidelines	• Division (EE)	6th month	DPRs ready for submission
8	Technical Sanction of sewerage as per GoP guidelines	• EE/SE/CE	6th month	DPRs ready for action
9	Collecting 100% community contribution	• GPWSC • Social Mobilisers	6th month	Collection register
10	Deposit users contribution in GPWSC account	• MVGPWSC/JE	6th month	Fund deposition receipt
11	Display of details of scheme, contribution collected	• MVGPWSC • Social Mobilisers	6th month	Submission of proposal
12	Orientating of GPWSC members on bidding process and their responsibility thereof during implementation phase	• EE • MVGPWSC • Social Mobilisers	6th month	
13	implementation phase proposal for monitoring of implementation	• MVGPWSC • Social Mobilisers	6th month	Submission of document
14	Approval of bid document by the competent authority	• EE/SE/CE	6th month	
15	Receipt of 1st instalment of 60% of the scheme cost by GPWSC	• EE/SPMC	7th month	
16	Sale of bid documents (e-tendering) by GPWSC through EE.	• EE • GPWSC	7th month	Document to be publish
17	Receipt of tenders from bidders	• EE • GPWSC	One month after sale	
18	Opening of Bids	• EE • GPWSC	One month after sale	

Sr. No	Activities	Responsibility	Time frame(in days)	Objectively verifiable indicators
19	Evaluation of the bids	• EE • GPWSC	One week after opening of tenders	
20	Selection of construction contractor(s) by GPWSC through EE	• EE • GPWSC	8th month	Contractor selected
21	Award letter to the selected contractor and disclosure of selection to all the bidders	• EE • GPWSC	9th month	Work allotted
22	Signing of Contract between the GPs/ GPWSC and the selected contractor	MVGPWSC	9th month	Contract signed
23	Organising regular meetings by GPWSC documentation of minutes of meeting	MVGPWSC	Continuous after formation	Minutes of the concerned Meetings
24	Community monitoring by GPWSC members social audit committee coordinating with EE	SACs	9th month	SAC report submitted to GPWSC and thereof to SPMC through concerned EE
Implementation Phase:---------- Duration 10 to 18 months (depending on the type of technology selected)				
1	IEC on sanitation, hygiene and environmental sanitation continue coordinated by IEC team,	• IEC team • SM	Continuous activity	Quarterly report on schedule of communication
2	Displaying Key Information (project details, details of members, completion timeline, emergency contact details)	• Contractor • SM	In 10th month and then maintained	
3	Construction of sewerage system and treatment unit	GPWSC	18th month	
4	Supervising Construction of sewerage system and treatment unit	EE GPWSC Social Mobilisers	After construction started on day to day basis	Reports submitted
5	Submission of bills by GPWSC with its recommendation duly entered by JE for passing to EE	JE GPWSC	As per payment terms & condition mentioned in the contract	
6	Passing of bills by EE and sending it back to GOWSC with recommendation for release of payment	EE	As per payment terms & condition mentioned in the contract	
7	Releasing payments to contractors by GP/ GPWSC	GPWSC	As per payment terms & condition mentioned in the contract	
8	Financial Audit of the expenditure auditor/consultant appointed by SPMC after minimum 60% of the released fund is consumed	SPMC		
9	Receipt of 2nd instalment of 30% of the scheme cost to GPWSC once 60% of the first instalment is consumed.	EE/SPMC	14th month	
10	Technical and Social Audit to check that the water system works as intended , vulnerable inclusion plan implemented as intended etc.,	SAC	18th month	Social Audit Report to be submitted to SPMC

Sr. No	Activities	Responsibility	Time frame(in days)	Objectively verifiable indicators
11	Preparation of the Project Completion Reports (PCRs) and submission	EE GPWSC	18th month	IPCR ready
12	PCR submitted to SPMC by EE for approval	SPMC	18th month	PCR approved
13	Third party audit after acceptance of PCRs by the consultants appointed by SPMC.	SPMC	18th month	Third party audit report available
14	Annual disclosure of accounts by GPWSC (collection, expenditure, list of households not paying the bills regularly	GPWSC Social Mobilisers	Each year	Display boards available at GPWSC
15	Disclosure of details (technical & financial) by GPWSC	GPWSC Social Mobilisers	18th month	
Operation & Maintenance Phase:---------- Duration 19 to 60 months and onwards				
1	Operation & Maintenance of scheme by the contractor	Contractor EE GPWSC	19th to 60th month	Quarterly report on O&M
2	Fixing user fees by GPWSCs	GPWSC Social Mobiliser	19th month	Written resolution issued by MVSWSC
3	Maintaining Books of Accounts	GPWSC	Monthly activity	
4	Monitoring for Sustainability- Continuous IEC activities with monitoring at household and community level.	IEC team MIS team Social Mobiliser	Monthly activity	Monitoring report
5	Impact Evaluation- 100% of households with water connection, use and maintain them.	SPMC	27th month	Evaluation report
7	Collecting user fees by GPWSC	GPWSC	Monthly activity	
8	Training of GPWSC members on O&M Activities	EE	54th month	Training and hand holding report
9	IEC on sewerage, cleaning of pipes, connection coordinated by IEC team.	• IEC team • SM	Continuous activity	Quarterly report on schedule of communication
10	Handholding activities of GPWSCs members for O&M to ensure sustainability	EE GPWSC Social Mobilisers	From 54th -60th month	Monitoring & evaluation report to be done by GPWSC & SDE
11	GPWSC taking over works from EE	EE	27th month	Internal report on transfer of responsibility
12	Exit of Social mobilisers & contractor from GP	SPMC	After 60 months	
13	Technical Back stopping by Technical Department (respective Divisions)	EE	After	

Appendices

Appendix A. Methodology & Study Schedules

A.1 Methodology

A.1.1 Outline of the Tasks to be carried out for the Part A: Social Assessment

- Legal and Policy analysis –Assess and analyse in context of social inclusion, participation, transparency, accountability and land requirement covering the sector as a whole.
- Beneficiary Assessment -- comprising socioeconomic profiles at state, district and village level; the project beneficiaries' assessment on the current status of RWSS management and services; and the linkages thereof with governance mechanisms and PRI functioning.(based on data provided by GoP)
- Stakeholder Analyses -- Identify stakeholders at different levels. Map Key Expectations, Impacts, Issues and Concerns as related to each stakeholder and the subgroups thereof.
- Impact Assessments -- identify positive and negative social impacts likely to occur for different sub-groups or beneficiaries as a result of project interventions; assess and prioritize impacts based on their significance; and suggest measures to minimize negative impacts and derive the maximum from positive impacts; (based on data provided by GoP)
- Institutional Analysis – document the existing institutional and implementation arrangements, covering all key actors – government departments, sector institutions, and Panchayat Raj Institutions (PRIs). Work flow chart will be prepared along with fund flow arrangements so as to lead to a SWOT exercise. The analyses ultimately should lead to recommendations on institutional and implementation arrangements for each of the investment streams.
- Gender and 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. The study should develop strategies to enhance the participation of these groups in the implementation of the water and sanitation sector services.
- Ascertain and analyse key social risks, internal and external, to the project and measures to address them;
- Assess the capacity to contribute and meet the user.
- Rules for securing lands. The project would require land for rehabilitation/construction activities. Drawing up plans for securing lands would include: (i) document the practices commonly adopted in the state; (ii) conduct a SWOT exercise of the current practice; and (iii) identify issues that need to be taken into account, particularly, relative to the respective State Policy on Resettlement and the Bank's OP 4.12. Based on the above, formulate a methodology for securing lands for the proposed project. This would essentially involve developing a generic framework by which project could secure lands including mitigation measures (such as resettlement action plan). Generic principles underpinning estimating replacement values (land, structure, and livelihoods) also need to be drawn.
- Vulnerable Peoples Development Plan (VPDP). The project is likely to cover vulnerable groups and therefore it is important to address the issues related them, mainly to enhance their participation in the project and to ensure that the project benefits are focused on them. The consultant would define principles and develop a framework to address their issues up-front and provide culturally compatible benefits and promote transparent consultations for informed decision making. To this extent, the consultant will prepare a generic framework.
- Assess the capacity to contribute and meet the user.

- Sub-Project cycle – Consultant shall prepare sub-project cycle for each category of investment which will cover detailed activities on technical, social and environment to be implemented during pre-planning, planning, implementation and O&M stage and withdrawal stage. This will indicate time line and responsibility of implementing partners.
- Monitoring and Evaluation – Consultant shall identify result based indicators on social inclusion, participation, transparency and accountability and land management. Develop formats for concurrent monitoring and process monitoring.

A.1.2 Outline of the Tasks to be carried out for the Part B: Generation of Baseline Data

The data for this part will be collated from the Mid Term report provided by the Client. However, our initial analysis of the report identified few gaps; these indicators are included in the study questionnaires.

- Identify and assess the settlement pattern in the state.
- Map the existing water supply and sanitation systems and the pattern of usage and the related knowledge, attitude and practices. This will lead to a status note on of the current water supply / usage, environmental sanitation and health & hygiene status which will include the following:-

  - Socio economic information of the population
  - Use of water
  - Personal hygiene, storage of drinking water, cleaning practices
  - Water quality
  - Disposal of household refuse
  - Water sanitation-health relationship: Knowledge about the causes of some water-borne
  - Grievance Management: grievance management systems, on its effective and efficient way of addressing grievances and suggest ways to enhance the scope to cover the sub-project cycle.

A.1.3 Outline of the Tasks to be carried out for the Part C: Capacity Building

The main objective of the study is to design the capacity building strategy and implementation action plan for the RWSS sector institutions and the Panchayati Raj Institutions, in accordance with the requirements of the Sector Development Program. The tasks to be accomplished are:

- 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. the type and levels of risks / gaps, and recommendations for enhancements, along with the pre-requisites for/ limitations in carrying out such enhancement, and recommendations on institutional capacity building to improve financial management practices for Sector Institutions and the PRIs.
- Conduct a 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.

- Capacity building strategy and plan - Prepare 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.
- Based on the above assessments, the consultant will propose a strategy and a general plan for building capacity in sector institutions and PRIs. Anticipating that this may not be an instant endeavour but a long-term even permanent activity, the consultants should consider phasing such capacity building, studying and recommending the start-up effort as a first phase, and then consolidation and maintenance.
- Capacity building programs - The initial (2-3 years) effort for capacity building will be designed in detail as indicated below. Individual plans must be considered for each institution and each level of the PRIs. This will include building of knowledge, skills, attitude, management practices for financial and institutional development & management. Broad categories of interventions could be in the spheres of technical, managerial and financial aspects. Specific programs will be developed, based upon need analysis of different stakeholders. Program content should be apt and adequate and appropriate methods for imparting capacity building are essential. It should be ensured that the initiatives are participatory in nature and field oriented, and less of classroom type i.e. lecture mode. All these need to be supplemented by qualified personnel who have an aptitude for the job. Also, specific institutions need to be identified for carrying out the capacity building. No single institute will be able to cater to all categories of interventions. Different institutions will have to be identified, with the possibility of an institutional linkage mechanism, including some institutions outside the state / country. A workshop would take place at this point.
- Action plan formulated should include budgeted costs for the proposed activities and a time line.
- Preparation of detailed action plans. For each type of institution (sector institutions) and each one of the three levels of the PRI. These plans will be detailed identifying activities, costs and calendar. Activities to be financed under the PRWSS should be specifically identified, including a recommendation of corresponding procurement plan. Activities should be grouped separately into training, information system and communication requirements, development of methodologies, procedures, technical and economic studies, and equipment. A workshop explaining results would take place at this point.
- Conduct structured Stakeholder analysis - Identify of key stakeholders (State, District, Block, Gram Panchayat, Village levels). Gain an understanding of views, perceptions and assumptions held by different stakeholders towards the proposed reform approach (expectations of water and sanitation services, perceptions on tariff, roles and beliefs) through consultations with different stakeholder groups. Carry out a detailed stakeholder analysis (decision makers, implementers, beneficiaries, winners/losers, influencers/opinion makers - proponents and opponents), identifying interests/expectations of each group, their characteristics, implications/potential for the project (positive and adverse) and prioritise them in order of criticality for the proposed project. The stakeholder analysis should analyse the critical stakeholders, their importance and power relationships of each stakeholder in the whole process.
- Institutional analysis and inventory - Identify existing local level institutions (formal/Informal) including nongovernment organisations, their strengths and their present potential role in carrying out communication activities.

- The consultant will also prepare the draft terms of reference for the actual implementation of the Social Management Framework, to be carried out subsequently with the help of local NGOs or other institutions or individuals. Action plan formulated should include budgeted costs for the proposed activities, tools and outline of communication materials.

A.1.4 Primary Research & Assessment

As per our technical proposal, both qualitative and quantitative techniques for primary data collection were used, but as the quantitative data has already been provided we have focused more on in-depth information collection and its analysis in the study area. In line with the directives of the client, the baseline data for the project was collated from the earlier midterm assessment data as provided by the client.

Further, the respondents for the social assessment study were basically the District level authorities, policy level officials and households/water users association. During this phase of the study, we contacted stakeholders using following research techniques;

A.1.5 Qualitative Research Technique:

As part of qualitative research technique we had in-depth interviews:

In-depth interviews (such interviews are free flowing discussions which are weaved around the domain i.e. water, and is carried out as per predefined guideline) with the concerned persons of implementing Department for each of the activities

- State Programme Management Cell
- Officials of Panchayati Raj at State level
- Officials of SPMC at District and Block Level
- Municipal/Panchayati Raj/Village Councillors

The output from the above analysis enabled to list various institutions who are working for drinking water and sanitation. This part of study helped us to:

- Familiarise ourselves with the nature, scope and phasing of the proposed investments with concerned officials in the Government of Punjab.
- Identify all key stakeholders (individuals, groups and institutions) and their roles and relationships with the project;
- Identify their interests, concerns and expectations;

Community participation is a major issue in delivery of Government scheme and it could only be addressed by involving Panchayati Raj Institutions. Capacity building plan were drafted based on results of training need assessment however, as per our previous experience we could indicate that capacity issues can be identified for various set of stakeholders including implementers, RWSS sector institutions and Panchayati Raj Institutions etc. Thus, a stakeholder analysis was conducted by our study team during Training Need Assessment. The study suggests a strategy and action plan for capacity building of different set of

stakeholders {implementers (government & non-government), Community, PRIs}. During the course of the study we designed the strategy with an aim to achieve following outcomes:

- A reasonable degree of consensus among key decision makers and opinion leaders on the need for proposed investments/reforms
- A good understanding and commitment among sector institutions and PRIs
- Equity in service provision (particularly for vulnerable groups)
- Institutional forums set up for interaction and consultation with stakeholders and for conflict resolution
- Agreement on service levels, tariff, mutual responsibilities and obligations through a transparently negotiated process with stakeholders (connected - directly or indirectly - with the area)
- Transparent monitoring and dissemination of outcomes

The Capacity building strategy & plan has been designed for 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 shortlist of institutions for sector institutions and Panchayati Raj Institutions personnel along with their strengthening requirements (if need be) thereof.The broad outline of the strategies is as follows;

- Strategy for internal strengthening of community based institutions
- Strategy for restructuring implementation authority (if required)
- Strategy for inclusion of civil society for delivery, operation, maintenance and monitoring of water and sanitation related services
- Strategy for inclusion of community including different marginalised group for planning, designing and monitoring of water and sanitation related services to attain ownership
- The questions related to training need assessment is added in the in- depth interview guides attached as appendix A

Participatory rural appraisal (PRA) - *PRA is an approach frequently used in development sector, the approach aims to incorporate the knowledge and opinions of rural people in the planning and management of development projects and programmes*)***:*** Separate PRAs were conducted with community groups- men and women of the Panchayat. The discussion was carried out using a guide and the issues captured were around the attributes and perceptions of water sources and how are they used, water scarcity, use of water, Solid waste management practices that are currently being followed, Sanitation habits, sanitation and waste management requirements/needs, type of pollution and contaminants in water, attributes of “good” and “bad” water, willingness to participate and pay for sanitation services, seasonality of water and ways to meet water needs including distance from clean water source etc.

PRA approaches and methods included: diagramming, mapping, ranking, interviewing, seasonal calendars, matrices, card sorts, collages, group work, timelines, trend and change analysis, oral testimonies, case-studies, stories, participant observation, on-the-spot analysis and more. Further to this we did free-listing, pile sorting and ranking of the pollution generating agents and practices, diseases due to polluted water, Community waste disposal mapping by card system, conceptual mapping for the possible remedial measures of pollution, gaining community’s consensus for active participation in the project and willingness to pay for better sanitation services etc.

STEP 1: Visiting the selected Panchayat a day before actual PRA with an aim to get a basic understanding of the social and physical characteristics of a ward, collect demographic data like detailed household specific information, talk about our objective and establish a comfortable forum for discussion. Then we fixed a date for PRA in the panchayat in consultation with the PRIs and villagers.

STEP 2: on the day of PRA we assembled the community in a convenient place and then after initial welcome, introduced the topic to the community and discussed about the meeting and then tried to establish a comfort level among the group. This warm up session and was guided by our senior research personnel's. Then we slowly moved towards Focus Group Discussion (FGDs).

STEP 3: we had FGD with the community as per definite guideline (**PLA Framework & FGD guide is attached as Appendix A**). During FGD our team tried to collect information on following;

- Community's access of water and sanitation infrastructure
- Seasonality of water and ways to meet water needs including distance from clean water source
- Community's perceptions of water sources and how are they used,
- Water Use Practice that are currently being followed,
- Water scarcity,
- Discrimination in use of water like caste
- Sanitation habits and practices
- Sanitation and waste management requirements/needs,
- Awareness on water contaminants, type and its effects to health
- Personal Hygiene Practices
- Health Related Issues
- Water Distribution practices and issues
- Perception on Social Issues related to WSS
- Willingness and Capacity to Pay
- Self-Perception and Suggestions on Social Impacts and Service levels, etc.
- Willingness to participate and pay for sanitation services
- Willingness to operate and manage Drinking water infrastructure for its sustainability
- Good and bad practices related to water and sanitation

STEP 4: having mapped the problems (problem tree analysis) during the FGD we helped the community to rate the problems as per their severity (by using card method). Then community was divided into small groups who in turn discussed and found possible solutions for the identified problems and the role they can play in solving the issues.

During this process, we also tried to find out community's inclination towards media and beliefs and role model which may further be used for capacity building strategy.

STEP 5: after completing problem tree analysis during the above mentioned sessions, we tried to assess the willingness of the residents to operate, maintain and pay of the services they are availing and also their willingness to pay for the same.

STEP 6: Finally we completed a transect-walk and validated the information collected.

Dictaphones were used to record FGDs, the recordings have been transcribed and then content were analysed. Similarly In-depth interviews were also content analysed by our senior researchers who have understanding of the sector (sanitation) as well as qualitative research.

A.1.5.1 Analysis of PRA enabled us to compile following information:

- Socio-economic factors that influence sustainable delivery of drinking water facilities to the households including willingness for taking up piped water connections and to pay for the facility
- Key stakeholders (individuals, groups and institutions) and their interest, roles and relationships
- Community's interests, concerns and expectations
- Diversity of the state, Gender and caste analysis for project implementation
- Probable measures for inclusion, transparency and accountability as desired by community during operational and maintenance phase
- Issues of conflicts that may arise during planning, implementation and regular operations and probable remedies as suggested by community
- Key social risks and religious beliefs
- Probable communication method that would deliver clear message to the community

In the process of conducting above mentioned activities we compiled few Case studies of best practices followed in a few select project areas. The PRA and FGD guide is attached as appendix A.

A.1.6 Quantitative Research:

Through quantitative data has been made available by client but we contacted few households to validate and update the available data. Hence, 10 households were contacted in each panchayat, since the study mainly uses the data provided for the midterm study, in order to maintain consistency we used same study questionnaire as was used during Midterm assessment (structured interview schedule is attached in appendix A). The data was analysed to address information on following issues:

- Socio economic profile of the household
- Baseline data collection in terms of present level of services, assess users demand and expectation for service levels and present cost of services.
- Community's interests, concerns and behaviour on disposal of waste.
- Community's awareness on processes and institutional arrangements of the project and their interest for inclusion.
- Socio-economic factors that influence sustainable delivery of sewerage services to the households
- Likely conflicts that may arise during planning, implementation and regular operations - which may be sensitive issues for the poor and vulnerable;
- Key social risks including gender differences and marginalised section of community.
- Community practices for restoring and utilising water.
- Probable communication method that would deliver clear message to the community

A.1.7 Study Coverage

As per discussions with the client, it was decided to consider one village from the geographically spread six representative districts falling into three different Socio-Cultural Zones.

Sl. No	District	**Socio-Cultural Zones**	**Block**	**Village**
1	Sri Sri Muktsar Sahib Sahib	South West Zone	Malout	Bhangchari
2	Moga	Satluj & Ghagar Malwa Plain	Dharamkot	Sangla
3	Sangrur	Satluj & Ghagar Malwa Plain	Malerkotla	Jhaner
4	SAS Nagar	Satluj & Ghagar Malwa Plain	Majri	Bhajauli
5	Hoshiyarpur	Upper Bari & Bist Doab Plain	Hoshiyarpur-2	Badial
6	Amritsar	Upper Bari & Bist Doab Plain	Ajnale	Harror Khurd

A.1.8 Data Entry and Analysis

All the filled in questionnaires from the field visit were used for qualitative analysis (after scrutinising of the entered data by our office editors). We developed a holistic data analysis and tabulation plan in due consultation with the client. Using the tabulation plans, data processing was carried out. Our in-house expert teams handled the data processing and data analysis. Based on the analysis of both qualitative and quantitative inputs, reports were prepared. The quantitative data was analysed using SPSS. Qualitative data was content analysed by the expert team.

A.1.9 Data collation, Triangulation and Report Generation

The collected data was collated and compared with midterm data provided by client. Once comparison is done, tables were generated and then data on different parameters triangulated with the other published information like Census 2011, data of Drinking Water Department (available in public domain) and other published reports. After triangulation was completed we processed the data for report writing addressing the parameters as mentioned below.

- Baseline information and monitoring indicators
- Stakeholder identification and Impact Assessments.
- Gender Impact Assessments
- Institutional Assessment along with the SWOT analysis of the PRIs relative to Institutional arrangements for participation and project management
- Identification of risks which might affect success of the project

- Capacity Building Assessments, Strategy and Action Plan

A.1 Study Schedule's

A.1.1 In-depth interview schedule I

A.1.1.1 Respondent

- State Programme Management Cell
- Officials of Panchayati Raj at state level
- Officials of SPMC at District and Block Level
- Municipal/Panchayati Raj/Village Councillors
- Non-Government Organisations/Civil Society (If any)

IDENTIFICATION

1. Name of the Department?
2. Name & designation of the Official contacted?
3. Please let us know about your department's role & responsibility?
4. What is the organisation structure of your Department to discharge the responsibilities?

PLANNING

5. Whether any standard guideline prepared at the state level for implementation of the programme? IF YES collect details/ guideline. IF No then why not prepared (collect detail).

6. How have the state level priorities been set up? What is the approach for village/unit level priority settings? Who prepares the plans and who is responsible for approval of the same?
7. Role of districts/blocks/PRIs in planning of the scheme? Whether they are efficient or they need any kind of capacity building?
8. How do you plan separately for water quality monitoring, which collects water samples and tests it for the State?

PROJECT IMPLEMENTATION

9. Please tell us about the institutional structure for implementation of the scheme? Role of districts/blocks/PRIs in implementation of the scheme? Whether they are efficient or they need any kind of capacity building?
10. Are you satisfied with the performance of schemes in respect of completion of target and impact on target group? Provide reason for your response.
11. Suggestions for better implementation/improvement of the schemes in the State.
12. Plans for improvement of access and quality of water?
13. It is known that availability of electricity is an issue in Punjab due to which piped water schemes are facing problems? Is it True, IF YES then what are your plans? Type of dialogue you have initiated with Power Department.

FUND ALLOCATION & FUND FLOW

14. Please tell us about the fund allocation mechanism? Is there any method being followed for allocation of funds like allocated as per the population density or bottom-up approach? Please describe the method.
15. Please tell us about the fund flow structure?
16. Please provide us details of fund allocated, fund received, and utilised for last three years for State.

MONITORING & EVALUATION

17. Please tell us about the Monitoring system embedded into the water supply scheme and how are the slip back habitations identified?
18. What are the stages of implementation in which monitoring is underway? Who are responsible for the monitoring and how is the NRDWP data getting updated?
19. Please tell us about the information flow structure for Monitoring & evaluation? What are the M&E reporting structure as well as feedback mechanism below the State level?
20. What is the role of districts/blocks/PRIs in Monitoring & Evaluation of Schemes? Are they sending you the required details? Do you find them capable to perform their duties and responsibilities; do they require any specific capacity building?

COVERAGE & ACCESSIBILITY OF WATER

21. Please let us know about the status of availability of access to safe and sustainable drinking water in percent coverage?
22. Could you kindly detail out the reason for non-availability of safe drinking water to all (**ASK: Only in case total coverage is not available)**?
23. Do you face any problems on construction and maintenance of drinking water scheme? IF YES, could you please explicitly discuss on this?

IEC RELATED

24. What problems are you facing in community's ownership in managing drinking water sources?
25. Please talk about your Department's IEC activities on drinking water (Please collect information on communication conducted earlier with evidence like CD of the program, pamphlets, hoardings etc.)?
26. What is your experience in terms of the household's willingness for taking up water stand post connections and willingness to pay?
27. What should be the fee for collection of solid and liquid waste at industry and household level?
28. Have you conducted any consultation workshop with the community in order to inform them about the project? Is there any information desk available at your office which is responding to the queries raised by the community?
29. What extent of tariff is being paid by the household and industry? What amount has not being paid in last few years?
30. What are your key concerns of this sector based on the experience (Probe on aspects of conflict areas, implementation and operational issues, monitoring issues)?

WEAKNESS AND SUPPORT REQUIREMENT

31. What issues are faced by your Department while implementing different programmes?
32. Do you see any staff requirement gaps, capacity building needs among your staff, which could help them perform better? If so, what areas (please collect detailed input)?

33. Whether your Department has built the capacity of the grass root level functionaries including villagers? Please provide details

A.1.2 PRIs/Panchayati Raj/GPWSC Members

PLANNING

1. What is your role in setting up village level priorities for each scheme? Collect specific details of each scheme under study
2. Are you involved in planning process? IF YES then do you comfortably understand each and every aspect of the scheme while planning? If no, how is the planning done?
3. If you do not understand the implementation of this select Flagship program, what are the areas which you are not aware of? Probe on what are the needs on capacity building?

SCHEME IMPLEMENTATION

4. Is there any village level association or committee who oversees the government schemes?
5. Did you receive any training or capacity building under any of the scheme or have you been told about your role in any of the scheme? If yes provide details?
6. How have the governmental water related schemes been implemented in your village? Who implements and how?
7. How are activities & beneficiaries been selected at village level? Whether Gram Sabha takes decision for water supply facility etc? If not, who decides?

FUND ALLOCATION & FUND FLOW

8. Are you aware of the fund allocation mechanism at village level for maintenance of water supply schemes? IF yes, please provide details of allocation and expenditure on it?
9. Please provide us details of fund allocated, fund received, and utilised for last three years for village

MONITORING & EVALUATION

10. Was any social audit committee formed who checks the implementation of government schemes on water supply? IF not, then who audits and who decides? IF yes, then have you provided your inputs in any such associations
11. What is your role in monitoring of financial matters of the water infrastructure in common places like Amenities in Schools, Anganwadis, Health Centres untied fund utilization etc. available in the village?
12. Have the supervisory officers of the implementing/executing agencies carried out inspections of the work/project run in the village. If yes, then mention the periodicity of inspections carried out (Monthly/Quarterly/Half Yearly/Yearly/Casual).
13. Please provide us details of physical performance in terms of target and achievements made for last three years for your village.

WEAKNESS AND SUPPORT REQUIREMENT

14. Do you see any capacity building need among the villagers involved in village level committees so that they could perform better? If so, what are the areas?
15. Has any capacity building programmes been run by any of the Department/s to build the capacity of the grass root level functionaries? IF YES provide details

A.2 Focus Group Discussion Guide

Facilitation Part

- To guide planning and preparation for community visits
- To provide general guidance on effective facilitation
- To become familiar with the community, and to see how the place is perceived by different groups within the community

Problem Tree Analysis

- To identify important livelihoods resources in the community, and who has access and control over them
- To identify sanitation practices the community is following currently
- To see the availability of water to their houses and water scarcity (if any)?
- To see whether they have experienced any water quality related issues?
- To know how they are managing household waste (solid and liquid)
- What is main source of drinking water for members of the community? If piped water then how much tariff they pay for this per quarter?
- To list the diseases community is suffering currently and their relation to water and sanitation?
- To find out Caste excluded and dynamics works in distribution of water?
- To find out the time required for collection of water? Who collects water gender angle on it?
- Do they have Willingness to operate and manage Drinking water infrastructure for its sustainability
- To analyse how they are trying to achieve sanitation and do they know where their household waste is leading to?
- To find out their knowledge about water quality and contamination?
- To assess their knowledge on electricity pricing/ water pricing
- To identify which is the active association/s in the community and how much does the community depend on them?
- To see which type of communication they have seen earlier- messages related to safe drinking water?
- To see their reaction on the communication messages - whether they have created any inquisitiveness or not in the community. IF yes, then who they have contacted to collect more information?
- To find out their training needs for management of community based infrastructure?
- Did any of the messages ever impact their change in lifestyle?
- How do they find pollution related messages available in the media they are using?
- How much media is influencing their lives?
- To see their opinion on governmental organisations which can make significant impact on abatement of pollution based on their experience till date?
- Their willingness to connect to piped water scheme and willingness to pay for the same, how much?
- To assess their preferred point of contact in case of any grievances (problems)?

Activities

- To understand which institutions are most important to communities using Venn Diagram
- To analyse engagement of different groups in local planning processes using card system
- To evaluate access to services and availability of social safety nets using services mapping
- To prepare a disease calendar
- To prepare history of events calendar
- To prepare sanitation habit calendar

A.2.1 Household Questionnaire (as used in Midterm Assessment)

Schedule No.

The respondent for this schedule will be the adult female of the household (wife of the Head of the Household). If she is not available then the information should be elicited from any adult female or any other adult male member of the HH.

Sl. No	Questions and filters	Coding Category	Codes	Skip
I	**IDENTIFICATION**			
101	District (Name)	_____	☐☐	
102	Block	_____	☐☐	
103	Gram Panchayat	_____	☐☐	
104	Name of Village	_____	☐☐	
105	Is this the main village of hamlet	Main village Hamlet	1 2	

Name of Interviewer: _____Date of Interview

II. RESPONDENT PARTICULARS

Sl. No.	Questions and filters	Coding Category	Codes	Skip
201	Name of the main respondent	Name _____		
202	Age of the main respondent (In completed years)		☐☐	
203	Gender of the respondent	Male Female	1 2	
204	What is the religion of the household head?	Sikh Hindu Muslim Christian Jain Other (specify) _____	1 2 3 4 5 6	
205	What is the caste of the head of household?	Scheduled Caste Scheduled Tribe Other Backward Caste Other (specify) _____	1 2 3 4	
206	What is the main occupation of Chief Wage Earner?	Self –employed – Non-agriculture (large business) Self –employed –Non-agriculture (petty business) Self –employed –Non-agriculture (skilled worker) Self-employed – agriculture Agriculture labourer Other labourer Salaried (Govt.) Salaried (Pvt.) Other (specify) _____	1 2 3 4 5 6 7 8 9	
207	Since how many years your household has been residing in this village?	Number of years _____	☐☐☐	
208	Is this house owned by your household or rented?	Owned (by any member of HH) Rented Other (specify) _____	1 2 3	
209	Type of dwelling (investigator to observe and record)	Kutcha Semi-pucca Pucca	1 2 3	If coded 1 or 2, skip to Q 211

210	Has your house been built under Indira Awas Yojana or any other government scheme?	Pucca – Indira Awas Yojna Pucca – Other Govt. Schemes No	1 2 3	
211	Type of ration card owned (investigator to observe and record)	AAY BPL APL	1 2 3	
212	Would you classify your household as part of the habitation poor households?	Yes No	1 2	

III A. WATER SUPPLY STATUS

Sl. No.	Questions and filters	Coding Category	Codes	Skip
301				

Sources	(a) What are the Different water sources used by your Household on regular basis for most of the year? (Code: Yes=1/ No=2) (Multiple Response)	(b) What Proportion (%) of total water requirement is from each of these sources? (Multiple Response)	(c) Which of these sources are used for Drinking & Cooling purposes (Code: Yes=1/ No=2) (Multiple Response)	(d) Which of these sources is theMain water source for the Household (Code 1 as Response) (Single Response)
Public Sources				
1. Household tap connection with piped water supply				
2. Stand post with piped water supply				
3. Tank Type stand post attached to Mini-water supply scheme				
4. Water from RO Plants				
5. Government deep bore hand pump				
6.Community/Panchayat installed bore hand pumps				
Private Sources				
7. Private hand pump fitted with motor				
8. Jet pump				
9. Tube well				

	Other Sources				
	10. River / streams				
	11. Irrigation canal				
	12. Wells				
	13. Ponds/ tanks				
	14. Irrigation tube wells				
	15. Others, specify_____				

302	**ASK IF CODED YES in 7 – 9 in <u>Q 301 (a-d) IN PRIVATE SOURCES</u>** What is the depth of water source in feet (<150 feet = unsafe)		Depth in feet ☐☐☐	
303	In the reference period of the last 3 years:			
(a)	Did your household use the same water source 3 years ago?	Yes No	1 2	
(b)	If your household used some other source, was it because the current water source was not available at the time?	Yes No	1 2	
(c)	If your household used the same water source 3 years ago, was this a household tap, standpost or government handpump?	Household tap connection with piped water supply Stand post with piped water supply Government handpump	1 2 3	
(d)	If your household had piped water supply 3 years ago, was the water supplied from a scheme which supplied multiple villages or was the water supply scheme only for your village?	Muti village scheme Own Village scheme	1 2	
(e)	Three years ago was the responsibility for repair and maintenance of the scheme undertaken by the Water Supply Department or the Gram Panchayat?	Water Supply Department Gram Panchayat	1 2	
(f)	Three years ago did you take water from a community stand post or a household tap?	Community Stand post Household Tap	1 2	
304	Does this water source provide water on a reliable basis throughout the year (across different seasons)?	Yes Most months of the year No	1 2 3	If coded 1, skip to Q 306
305	When is the water supply not	During summer	1	

	reliable from this water source?	During times when the fields are irrigated On and off throughout the year Other, specify _____	2 3 4	
306	Does your household have adequate water for your requirements from this source?	Yes Mostly No, have to use other sources	1 2 3	
307	Usually, is the water from this source used for drinking?	Yes Sometimes No	1 2 3	If coded 3, skip to Q 309
308	Do you do anything to purify water from this source before drinking?	Yes No	1 2	
309	Please tell me for what other purposes does your household use water from this source? (Multiple responses allowed)	Cooking Washing utensils Bathing Washing clothes Watering cattle Cleaning house For kitchen garden	1 2 3 4 5 6 7	
310	What is your opinion about the quality of water from this source?	Good Average Poor	1 2 3	
311	How far is this water source from your house?	Within premises < 50 m 50 – 100 m 101 - <500 m 500 m - < 1 km 1 - <1.5 km > 1.5 km	1 2 3 4 5 6 7	
312	Can you tell me whether the water pressure is good during summer and other seasons?	Yes No	1 2	
313	Do you adopt some special strategies to manage water during times when your household source has less water?	Yes No	1 2	If coded 2 skip to Q 315
314	What kind of strategies is adopted? (Multiple responses allowed)	Walking far to get water from distant source Use less water Spend more time on long queues to get water Buy water from tankers From alternate source in	1 2 3 4 5	

		household Other, specify_____	6	
315	During the past 12 months did your household face any problem(s) with regard to water from this source?	Yes No	1 2	If coded 2 skip to Q 317
316	What are the 2 major problems that were faced? (Multiple response)	Insufficient quantity Poor quality – not fit for drinking Breakdown/failure of the source Disruption in supply Other, specify_____	1 2 3 4 5	
317	Does your household have to pay for the water supply?	Yes No	1 2	If coded 2 skip to Q 318
(a)	If yes, how often do you have to pay in a year?	Monthly 6 times a year 4 times a year 3 times a year Once a year		
(b)	What is the amount paid annually?	Amount Paid:_____		
318	How would you rate the reliability of this water source on basis of the following parameters?			

Parameters	Always Reliable (Code as 1)	Mostly Reliable (code as 2)	Not Reliable (code as 3)
(a) Reliability of the quantity of supply			
(b) Reliability of the water pressure			
(c) Reliability of availability throughout the year			
(d) Reliability of the water quality			

III B. WATER SUPPLY STATUS – DETAILS OF PUBLIC PIPED WATER SOURCES AND MINI-WATER SUPPLY SCHEME (TO BE ASKED TO THOSE CODED YES IN 1, 2 OR 3 IN Q.301 (a-d) IN PUBLIC SOURCES)

Sl. No.	Questions and filters	Coding Category	Codes	Skip
319	Is the scheme that provides the	Multi village scheme	1	

	piped water supply a multi village scheme, single village scheme or a mini – water scheme?	Single village scheme Mini – water scheme	2 3	
320	Usually is water supply available daily, alternate days, or at less Frequency?	Daily Alternate days Less than 3 days a week	1 2 3	If coded 1, skip to Q 322
321	Usually, is water supply always provided on days fixed for supply?	Fixed days No fixed days	1 2	
322	Are the water supply timings usually maintained?	Supply as per fixed timings No fixed water supply timings	1 2	
323	How many times a day is water supplied?	Once Twice Three times or more 24 hours	1 2 3 4	
324	What is the total duration of supply on the days of supply?	Hours: ☐☐ Minutes: ☐☐		
325	Usually is the total duration of supply per day constant?	Total hours usually constant Supply hours vary	1 2	
326	Are the water supply timings reliable?	Yes No	1 2	
327	Are the timings of the supply suitable?	Yes No	1 2	If coded 1, skip to Q 329
328	If not, what would be the most suitable timings?	From: ☐☐ To: ☐☐		
329	Does your household have a water tank to store water	Yes – overhead Yes – at ground level Yes – under ground No	1 2 3 4	

III C. WATER SUPPLY STATUS – DETAILS FOR HOUSEHOLDS USING RO SCHEMES. (TO BE ASKED TO THOSE CODED YES IN 4 IN Q.301 (a-d) IN PUBLIC SOURCES)

Sl. No.	Questions and filters	Coding Category	Codes	Skip
330	For how long is your household using from the RO Plant?	>2 years 1 – 2 years	1 2	

		< 1 year	3	
331	Does your household fetch water from plant or is water supplied to the house	Fetch water from RO plant Water supplied to the house	1 2	If coded 1, skip to Q 334
332	If water is supplied to the house, is thi containers or a pipeline?	Through containers Through a pipeline	1 2	
333	What is the cost per litre of water (incl service charges if it is delivered to you ?	Paisa: _____ / litre		

III D. WATER SUPPLY STATUS - FOR ALL RESPONDENTS

334	Please tell me how much water in a day is usually required for the following activities – only in case these are performed daily? (Please record quantity in terms of 1 litre bottles and 10 litre buckets as indicated).	**Use**	**Water in 10 litre buckets**	**Water in 1 litre bottles**
		Drinking		
		Cooking		
		Bathing		
		Washing utensils		
		Washing clothes		
		Water cattle		
		Kitchen garden		
		Cleaning house		
		Other Specify_____		
335	How much additional water is used for some of the activities (e.g. like washing clothes) which may be done on certain days of the week? (Please record quantity in terms of a 10 litre bucket).	Additional water used per day on some days of the week	10 Litre Buckets	
336	When water is not available in your water source, what does your household do to get water for your household need? (Multiple response)	From the other stand posts From other Government (India Mark II / III) hand pumps From neighbours Others, specify_____	1 2 3 4	
337	Please consider the main water source of your household and rate the water source on a 5 point scale on the basis of the following parameters / aspects. Score of 1 would be the lowest while a score of 5 would be the highest rating: INSTRUCTION: ENCIRCLE THE RELEVANT SCORE			

Parameters/ Aspects	Scores				
(a) Quantity of water received	1	2	3	4	5
(b) Adequacy of water quantity vis a vis requirement	1	2	3	4	5
(c) Frequency of water supply per week	1	2	3	4	5
(d) Total duration of water supply / day	1	2	3	4	5
(e) Suitability of water timings	1	2	3	4	5
(f) Water quality in terms of taste, colour, odour, and health impact	1	2	3	4	5
(g) Adequacy of water pressure	1	2	3	4	5
(h) Overall reliability of supply throughout the year	1	2	3	4	5

III E. WATER SUPPLY STATUS - FOR ALL RESPONDENTS OF HOUSEHOLDS USING COMMUNITY WATER SOURCES AS THEIR MAIN WATER SOURCE

INSTRUCTION: THOSE CODED YES IN 7,8 OR 9 IN Q 301 IN PRIVATE SOURCES SHOULD SKIP TO Q 341						
	338	Do any member(s) in your household have to fetch drinking water from outside the house on a regular basis?	Yes No		1 2	If coded 2, skip to 340
	339	Which persons in your household usually fetch water? (Please answer number of trips for all adult women/adult male/girl child/Boy child on a combined basis)	**Members**	**No. of times per day**	**Travel time each round trip (min.)**	**Time spent waiting in a queue per trip (min.)**
			Adult woman			
			Adult male			
			Girl child			
			Boy child			

	340	Does water from this water source have any problems in terms of its drinking water quality? **(Investigator, please prompt the responses)**	**Quality of water**	**Yes**	**No**	
			Unacceptable taste	1	2	
			Unacceptable smell	1	2	
			Not clear/transparent in appearance	1	2	
			Unacceptable quality because of high iron content	1	2	
			Unacceptable quality because of fluorides	1	2	
			No Problem	1		
			Other (specify)_____	1	2	

III F. WATER SUPPLY STATUS - FOR HOUSEHOLDS CURRENTLY USING UNIMPROVED / UNSAFE WATER SOURCES [PRIVATE SHALLOW BORE HANDPUMPS (<150 FEET), WELLS, TUBEWELLS/BOREWELLS (<150 FEET), RIVERS/STREAMS, CANALS/PONDS/TANKS, IRRIGATION TUBEWELLS]

Sl. No.	**Questions and filters**	**Coding Category**	**Codes**	**Skip**
341	Did your household ever use tap water (stand post/household tap), India Mark (II / III) hand pumps, mini – water schemes, RO plant's water supply on a regular basis in the past?	Yes No	1 2	If coded 2, skip to Q 343
342	If yes, what is the reason for discontinuing the use of this water source?	Breakdown of source Bad water quality Currently have a private water source Others, specify: _____	1 2 3 4	Go to Q 344
343	If the household has never used a safe water source, what is the reason?	Not available Not accessible due to social reasons Others, specify: _____	1 2 3	

III G. WATER SUPPLY STATUS - SAFE WATER AND SANITATION PRACTICES

344	Investigator, please observe the following practices:	Drinking water is stored above ground level and out of reach of household pets	Yes No	1 2
		Drinking water storage vessel is kept covered	Yes No	1 2
		Ask the respondent for a glass of drinking water and observe how the person takes out water from the container.	Pours water by tilting Retrieves water through a long handled ladle Pours out from plastic bottle Takes water out from tap in storage vessel Directly from water source Dips cup/mug inside storage container	1 2 3 4 5 6
		Is there a specific place in the house for washing hands where water and soap are kept	Yes No	1 2
345	Ask respondent: When do members of your house generally wash hands with water and soap? (multiple response, do not prompt)	After defecation After cleaning small child's defecation Before eating Before cooking Before serving food Every time after returning home During bath Never	1 2 3 4 5 6 7 8	

IV. ACCESS AND USE OF TOILETS

Sl. No.	Questions and filters	Coding Category	Codes	Skip
401	Is there any toilet facility in the house?	Yes No	1 2	If coded 2, Skip to Q 406
402	How many toilets do you have?	No. of Toilets	☐	

403	Type of toilet available in the house	Borewell Latrine Single pit toilet Twin pit toilet Toilet with Septic tank VIP Toilets Toilet attached to a sewerage system Service latrine	1 2 3 4 5 6 7	If coded 1,4,5 or 6 skip to Q 405
404	Is the latrine pit lined with brick and cement or unlined (kutcha)?	Pit lined with brick and cement Pit kutcha	1 2	
405	Does your toilet have a water seal arrangement (U-tube with water connecting pan-trap and pipe leading to pit?)	Yes No	1 2	

406 Please write the names of all the household members, their gender, age, and whether they use the toilet regularly. (Write not applicable if child less than 2 years).

Sl.	Name of HH member	Age (in completed years)	Gender Male = 1, Female = 2	Use toilet Regularly= 1, Not regularly = 2, No=3, NA = 4 Do not have toilet=5
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

If coded 1,2, 3 or 4 in last column above, skip to Q 411

407	What do you do in the absence of a household toilet?	Open defecation Use neighbour's/relative's toilet Use community toilet	1 2 3	If coded 1 or 2 Skip to Q 411
408	Has your household ever participated in cleaning of community toilets?	Yes No	1 2	

409	Do you have to pay for the use of community toilets?	Yes No	1 2	If coded 2, skip to Q 411
410	What is the basis of payment?	Per Usage Monthly card	1 2	
411	Has any household member suffered from the following disease in the last 6 months?	**Disease Type**	**Yes** / **No**	
		Frequent diarrhoea	1 / 2	
		Other water related diseases like Jaundice, typhoid, etc.	1 / 2	
		Yellow and broken teeth	1 / 2	
		Worm Infestation	1 / 2	

		Toilet 1	**Toilet 2**	**Toilet 3**
412	Functional status of the toilet – (Investigator to check by requesting respondent to pour a bucket of water in the toilet, and if the water drains away immediately, the status is taken to be functional). (Ask as per no of toilets in Q 402) (Code: Functional – 1, Clogged, but somewhat functional – 2, Non- functional – 3)	☐	☐	☐
413	Is the toilet pit within 15 meters distance from any drinking water source? (Code: Yes- 1; No- 2)	☐	☐	☐
414	Is water available for flushing the toilet? (Code : Yes – 1; No- 2)	☐	☐	☐
415	Is there soap and water available nearby for hand washing? (Code : Yes – 1; No- 2)	☐	☐	☐
416	Evidence of faeces on the pan and surrounding floor? (Code: Yes- 1; No- 2)	☐	☐	☐
417	Evidence of flies (considerable number) in the toilet? (Code: Yes- 1; No- 2)	☐	☐	☐
418	Interviewer opinion: whether latrine causes pollution to surrounding environment? (Code : Yes – 1; No- 2)	☐	☐	☐
419	Is the toilet properly maintained? (Code : Yes – 1; No- 2)	☐	☐	☐

V. GARBAGE COLLECTION

Sl. No.	**Questions and filters**	**Coding Category**	**Codes**	**Skip**

501	Is there a door to door garbage collection service in the village?	Yes No	1 2	If coded 2, skip to 503
502	What is the frequency of collection of garbage from your households?	No. of days in a week ☐ No particular pattern of collection	 8	
503	Do you pay any charge for door to door collection?	Yes No	1 2	If coded 1, skip to Q 601
504	If not, where is your household garbage disposed?	Outside in house backyard Neighborhood garbage dump Village garbage dump Agricultural fields On the roadside Others, Specify _____	1 2 3 4 5 6	
505	Usually are these garbage dumps located within the village or outside?	Within the village Outside the village	1 2	

VI. WASTE WATER DRAINING

Sl. No.	Questions and filters	Coding Category	Codes	Skip
601	Does your locality have underground or surface drains for disposal of wastewater/storm water?	Covered drainage network present Open surface drains Mix of underground and surface drains No drains	1 2 3 4	If 1 skip to Q 603
602	How often are the drains cleaned?	Daily Weekly Monthly Bi-monthly Half-yearly Annually As and when required Never	1 2 3 4 5 6 7 8	
603	Does your locality have pockets of wastewater stagnation for most months in the year?	Yes No	1 2	
604	During the rainy season, are the roads in this locality waterlogged temporarily?	Yes No	1 2	
605	If there is no surface or underground drains, where is wastewater disposed?	Outside the house Backyard	1 2	

		Soakpit Pooled outside the house	3 4	

VII. PARTICIPATION IN WATSAN ACTIVITIES

Sl. No.	Questions and filters	Coding Category	Codes		Skip
701	Who pays for repair of water sources? (Multiple response)	Community/user household entirely Panchayat entirely Panchayat and community/user households on a shared basis Other (specify)_____ DK/CS Nobody	1 2 3 4 5 6		
702	Has anybody in the household participated in the following activities in this habitation? (multiple response)	**Activities**	**Yes**	**No**	
		Selection of type of water source	1	2	
		Selection of site of street tap/stand post or public hand pump	1	2	
		Cleaning and maintenance of the water source	1	2	

Appendix B. Socio Economic Tables & Factsheet-Comparison Matrix

B.1 Socio Economic Tables

B.1.1 Age of the respondents

Table B.1: Age group of the respondents

Age	Districts													
	Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
15 - 25	56	14.1	31	7.7	21	5.6	61	15.3	61	15.2	38	9.4	**268**	**11.3**
26 - 40	205	51.5	179	44.6	154	41.2	166	41.5	171	42.6	198	49.1	**1073**	**45.1**
41 - 60	126	31.7	166	41.4	170	45.5	153	38.3	157	39.2	146	36.2	**918**	**38.6**
61 - above	11	2.8	25	6.2	29	7.8	20	5.0	12	3.0	21	5.2	**118**	**5.0**
Total	**398**	**100.0**	**401**	**100.0**	**374**	**100.0**	**400**	**100.0**	**401**	**100.0**	**403**	**100.0**	**2377**	**100.0**

Source: Data collected by Nielson & Analysed by MM

B.1.2 Gender of respondents

Table B.2: Gender-wise distribution of the respondents

Gender of the respondent	Districts													
	Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Male (%)	56	14.1	59	14.7	37	9.9	224	56.0	58	14.5	25	6.2	**459**	**19.3**
Female (%)	342	85.9	342	85.3	337	90.1	176	44.0	343	85.5	378	93.8	**1918**	**80.7**
Total Households (N)	**398**	**100.0**	**401**	**100.0**	**374**	**100.0**	**400**	**100.0**	**401**	**100**	**403**	**100**	**2377**	**100.0**

Source: Data collected by Nielson & Analysed by MM

Table B.3: Gender of the heads of the house-holds

Gender of Head of the Household	Districts													
	Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Male (%)	373	93.7	342	85.3	337	90.1	364	91.0	375	93.5	374	92.8	**2165**	**91.1**
Female (%)	25	6.3	59	14.7	37	9.9	36	9.0	26	6.5	29	7.2	**212**	**8.9**
Total Households (N)	**398**	**100.0**	**401**	**100.0**	**374**	**100.0**	**400**	**100.0**	**401**	**100**	**403**	**100.0**	**2377**	**100.0**

Data collected by Nielson & Analysed by MM

B.1.3 Literacy level

Table B.4: Literacy level of the heads of the households

Education of the Head of the Household- Sangrur	Districts Amritsar N	Amritsar %	Hoshiarpur N	Hoshiarpur %	Moga N	Moga %	Sri Muktsar Sahib N	Sri Muktsar Sahib %	Sangrur N	Sangrur %	SAS Nagar N	SAS Nagar %	Total N	Total %
None/ Illiterate	211	53.0	98	24.4	191	51.1	200	50.0	160	39.9	118	29.3	**978**	**41.1**
Some Primary(class 1-4 / literate but no schooling)	22	5.5	9	2.2	33	8.8	14	3.5	22	5.5	38	9.4	**138**	**5.8**
Finished Primary(Passed class 5)	38	9.5	37	9.2	45	12.0	37	9.3	61	15.2	52	12.9	**270**	**11.4**
Some Secondary(Class 6 -9)	64	16.1	96	23.9	37	9.9	60	15.0	67	16.7	63	15.6	**387**	**16.3**
Finished Secondary(Passes class 10)	41	10.3	107	26.7	42	11.2	50	12.5	60	15.0	83	20.6	**383**	**16.1**
Finished Higher Secondary (Passed class 12)	17	4.3	33	8.2	19	5.1	22	5.5	21	5.2	32	7.9	**144**	**6.1**
Some college but not graduate / Diploma	1	.3	1	.2	2	.5	5	1.3	6	1.5	6	1.5	**21**	**0.9**
Graduate(General / Professional)	3	.8	16	4.0	3	.8	11	2.8	3	0.7	10	2.5	**46**	**1.9**
Post graduate(General / Professional)	1	.3	2	.5	2	.5	1	.3	1	0.2	1	.2	**8**	**0.3**
Others	0	.0	2	.5	0	0	0	0	0	0	0	0	**2**	**0.1**
Total	**398**	**100.0**	**401**	**100.0**	**374**	**100.0**	**400**	**100.0**	**401**	**100**	**403**	**100.0**	**2377**	**100.0**

Data collected by Nielson & Analysed by MM

B.1.4 Religious background

Table B.5: Religious background of the respondents

Religion	Districts Amritsar N	Amritsar %	Hoshiarpur N	Hoshiarpur %	Moga N	Moga %	Sri Muktsar Sahib N	Sri Muktsar Sahib %	Sangrur N	Sangrur %	SAS Nagar N	SAS Nagar %	Total N	Total %
Sikh	330	82.9	212	52.9	356	95.2	368	92.0	338	84.3	310	76.9	**1914**	**80.5**
Hindu	35	8.8	188	46.9	13	3.5	30	7.5	51	12.7	79	19.6	**396**	**16.7**
Muslim	1	.3	1	.2	5	1.3	1	.3	12	3.0	14	3.5	**34**	**1.4**
Other	32	8.0	0	.0	0	.0	1	.3	0	0.0	0	0	**33**	**1.4**
Total	**398**	**100.0**	**401**	**100.0**	**374**	**100.0**	**400**	**100.0**	**401**	**100.0**	**403**	**100.0**	**2377**	**100.0**

Data collected by Nielson & Analysed by MM

B.1.5 Social groups/Castes of the respondents

Table B.6:: Castes of the respondents

Caste	Districts Amritsar N	Amritsar %	Hoshiarpur N	Hoshiarpur %	Moga N	Moga %	Sri Muktsar Sahib N	Sri Muktsar Sahib %	Sangrur N	Sangrur %	SAS Nagar N	SAS Nagar %	Total N	Total %
Scheduled Caste	203	51.0	243	60.6	194	51.9	136	34.0	154	38.4	179	44.4	**1109**	**46.7**
Other Backward Caste	56	14.1	31	7.7	40	10.7	76	19.0	35	8.7	85	21.1	**323**	**13.6**
General	139	34.9	127	31.7	140	37.4	188	47.0	212	52.9	139	34.5	**945**	**39.8**
Total	**398**	**100.0**	**401**	**100.0**	**374**	**100.0**	**400**	**100.0**	**401**	**100.0**	**403**	**100.0**	**2377**	**100.0**

Data collected by Nielson & Analysed by MM

B.1.6 Government Cards

Table B.7:: Government Cards of the contacted beneficiaries

Type of ration card owned by head of household	Districts Amritsar N	Amritsar %	Hoshiarpur N	Hoshiarpur %	Moga N	Moga %	Sri Muktsar Sahib N	Sri Muktsar Sahib %	Sangrur N	Sangrur %	SAS Nagar N	SAS Nagar %	Total N	Total %
AAY	19	4.8	12	3.0	5	1.3	32	8.0	29	7.2	2	.5	**99**	**4.2**
BPL	53	13.3	42	10.5	38	10.2	22	5.5	82	20.4	43	10.7	**280**	**11.8**
APL	118	29.6	200	49.9	104	27.8	128	32.0	123	30.7	142	35.2	**815**	**34.3**
Blue card	184	46.2	117	29.2	171	45.7	204	51.0	134	33.4	201	49.9	**1011**	**42.5**
No ration card	24	6.0	30	7.5	56	15.0	14	3.5	33	8.2	15	3.7	**172**	**7.2**
Total	**398**	**100.0**	**401**	**100.0**	**374**	**100.0**	**400**	**100.0**	**401**	**100**	**403**	**100.0**	**2377**	**100.0**

Data collected by Nielson & Analysed by MM

B.1.7 Occupation of the chief wage earner

Table B.8:: Main Occupation of the Chief wage earner

Main occupation of Chief Wage Earner	Districts Amritsar N	Amritsar %	Hoshiarpur N	Hoshiarpur %	Moga N	Moga %	Sri Muktsar Sahib N	Sri Muktsar Sahib %	Sangrur N	Sangrur %	SAS Nagar N	SAS Nagar %	Total N	Total %
Self -employed - large business	2	.5	2	.5	3	.8	12	3.0	17	4.2	4	1.0	**40**	**1.7**
Self -employed - petty business/Shop Owner	27	6.8	19	4.7	14	3.7	33	8.3	18	4.5	13	3.2	**124**	**5.2**
Self -employed - skilled worker	20	5.0	47	11.7	28	7.5	12	3.0	21	5.2	9	2.2	**137**	**5.8**
Self-employed – agriculture	82	20.6	50	12.5	89	23.8	143	35.8	106	26.4	95	23.6	**565**	**23.8**
Agriculture labourer	32	8.0	48	12.0	72	19.3	83	20.8	90	22.4	102	25.3	**427**	**18.0**
Other labourer	212	53.3	161	40.1	130	34.8	88	22.0	111	27.7	139	34.5	**841**	**35.4**
Salaried (Govt.)	6	1.5	47	11.7	12	3.2	14	3.5	17	4.2	13	3.2	**109**	**4.6**
Salaried (Pvt.)	14	3.5	22	5.5	22	5.9	12	3.0	13	3.2	19	4.7	**102**	**4.3**

Main occupation of Chief Wage Earner	Districts Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Others (Specify)	3	.8	5	1.2	4	1.1	3	.8	8	2.0	9	2.2	**32**	**1.3**
Total	**398**	**100.0**	**401**	**100.0**	**374**	**100.0**	**400**	**100.0**	**401**	**100**	**403**	**100.0**	**2377**	**100.0**

Data collected by Nielson & Analysed by MM

B.1.8 Ownership of the agriculture land

Table B.9:: Ownership of the agricultural land

Agricultural land owned by the household	Districts Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
None	288	72.4	316	78.8	239	63.9	175	43.8	230	57.4	227	56.3	**1475**	**62.1**
0.1 - 2.5 acres	66	16.6	36	9.0	54	14.4	54	13.5	76	19.0	101	25.1	**387**	**16.3**
>2.5 ac	44	11.1	49	12.2	81	21.7	171	42.8	95	23.7	75	18.6	**515**	**21.7**
Total	**398**	**100.0**	**401**	**100.0**	**374**	**100.0**	**400**	**100.0**	**401**	**100.0**	**403**	**100.0**	**2377**	**100.0**

Data collected by Nielson & Analysed by MM

B.1.9 Numbers of members in household

Table B.10:: Number of members in household

Number of members in household	Districts Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
1 to 5	261	65.6	319	79.6	210	56.1	279	69.75	228	56.9	280	69.5	**1577**	**66.3**
6 to 10	133	33.4	76	19.0	144	38.5	118	29.5	159	39.7	112	27.8	**742**	**31.2**
11 to 15	4	1.0	5.0	1.2	16	4.3	3	0.75	13	3.2	9	2.2	**50**	**2.1**
16 – above	0	.0	1.0	.2	4	1.1	0	0	1	.2	2	0.5	**8**	**0.3**
Total	**398**	**100.0**	**401**	**100.0**	**374**	**100.0**	**400**	**100**	**401**	**100.0**	**403**	**100**	**2377**	**100.0**

Data collected by Nielson & Analysed by MM

B.1.10 House built under IAY or other Govt. schemes

Table B.11:: Houses built under IAY or other Govt. schemes

Whether house built under IAY	Districts Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Indira Awas Yojna	0	0	1	.2	1	.3	3	.8	2	.5	0	0	7	0.3
Other Govt. Schemes	2	.5	2	.5	3	.8	2	.5	44	11.0	1	.2	54	2.3

Whether house built under IAY	Districts Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
No	396	99.5	398	99.3	370	98.9	395	98.8	355	88.5	402	99.8	2316	97.4
Total	398	100.0	401	100.0	374	100.0	400	100.0	401	100.0	403	100.0	2377	100.0

Data collected by Nielson & Analysed by MM

B.1.11 Type of dwelling

Table B.12:: Type of dwelling of the respondents

Type of dwelling	Districts Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Kutcha	13	3.3	20	5.0	32	8.6	12	3.0	27	6.7	12	3.0	**116**	**4.9**
Semi-pucca	172	43.2	209	52.1	175	46.8	164	41.0	177	44.1	125	31.0	**1022**	**43.0**
Pucca	213	53.5	172	42.9	167	44.7	224	56.0	197	49.1	266	66.0	**1239**	**52.1**
Total	**398**	**100.0**	**401**	**100.0**	**374**	**100.0**	**400**	**100.0**	**401**	**100.0**	**403**	**100.0**	**2377**	**100.0**

Data collected by Nielson & Analysed by MM

B.1.12 Kind of walls in House

Table B.13:: Kind of walls in the house of the respondents

Kind of Walls	Districts Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Concrete/brick	272	68.3	110	27.4	189	50.5	193	48.3	150	37.4	145	36.0	**1059**	**44.6**
Wood	2	.5	8	2.0	2	.5	0	0	1	.2	0	0	**13**	**0.5**
Palm/Bamboo/Thatch	3	.8	11	2.7	2	.5	2	0.5	4	1.0	0	0	**22**	**0.9**
Bamboo/straw with mud	3	.8	14	3.5	15	4.0	15	3.75	4	1.0	5	1.2	**56**	**2.4**
Stone with mud/cement	118	29.6	258	64.3	165	44.1	190	47.5	239	59.6	253	62.8	**1223**	**51.5**
Other specify	0	.0	0	0	1	.3	0	0	3	.7	0	0	**4**	**0.2**
Total	**398**	**100**	**401**	**100.0**	**374**	**100.0**	**400**	**100**	**401**	**100.0**	**403**	**100.0**	**2377**	**100.0**

Data collected by Nielson & Analysed by MM

B.1.13 Habitation

Table B.14:: Household as a part of habitation's poor household

Whether household as part of habitation's poor household	Districts													
	Amritsar		Hoshiarpur		Moga		Sri Muktsar Sahib		Sangrur		SAS Nagar		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Yes	324	81.4	259	64.6	230	61.5	267	66.8	274	68.3	211	52.4	**1565**	**65.8**
No	74	18.6	142	35.4	144	38.5	133	33.3	127	31.7	192	47.6	**812**	**34.2**
Total	**398**	**100.0**	**401**	**100.0**	**374**	**100.0**	**400**	**100.0**	**401**	**100.0**	**403**	**100.0**	**2377**	**100.0**

Data collected by Nielson & Analysed by MM

B.2 Factsheet-Comparison Matrix

Below is presentation of the information related to water supply and sanitation facilities in the state of Punjab in tabular form. The matrix is an attempt to compare the result of the study carried out in six districts i.e. Amritsar, Hoshiarpur, Moga, Muktsar, Sangrur, & SAS Nagar and result of the census 2011 (Punjab-Rural).

Sl. No.	Parameters	Punjab Study	Census 2011 (Punjab-Rural)
Section I – GENERAL INFORMATION			
1	Age group of the respondents	Maximum 26 to 60 – 45.1 % Minimum 61 – above – 5 %	NA
2	Gender of the Respondents	Male – 19.3 % Female – 80.7 %	NA
3	Gender of Head of the Household	Male – 91.1 % Female – 8.9 %	NA
4	Education of the Head of the Household	Maximum Illiterate: 41.1 % Minimum Post Graduate: 0.3 %	NA
5	Religion	Maximum Sikh – 80.5 % Minimum Muslim and Others – 1.4 %	NA
6	Caste	Maximum Schedule Caste – 46.7 % Minimum OBC – 13.6 %	NA
7	Access to Government Cards	Maximum Blue Card – 42.5 %	NA

		Minimum AAY – 4.2 %	
8	Occupation of chief wage earner	Other labourer – 35.4 % Self-employed (agriculture) – 23.8 % Agricultural Labour – 18 %	NA
9	Ownership of Land	Landless – 62.1 % 0.1 to 2.5 acres – 16.3 % >2.5 acres – 21.7 %	NA
10	Number of members in households	1to 5 – 66.3 % 6 to 10 – 31.2 %	1 to 5 – 63.5 % 6 to 8 – 29.6 %
11	Type of dwelling	Pucca – 52.1 % Semi pucca – 43 percent Kuccha - 4.9 %	NA
Section II – WATER SUPPLY			
12	Main source of Water	Household tap connection with piped water supply – 55.7 % Tube well/bore well – 21.9 % Individual Hand pump – 9.2 %	Tap water from treated source – 25.3 % Tap water from untreated source – 9.6 % Tube well/bore well – 28 % Hand pump – 33.8 %
13	Depth of source of water in feet (private hand pump, private hand pump fitted with motor, jet pump, tube well/bore well)	101 to 250 – 52.3 % 0 to 100 feet – 34.4 % 251 to 500 feet – 10.3 %	NA
14	Whether existing source of water is reliable	Yes – 76.5 % No – 6.8 %	NA
15	When supply is not reliable	During Summer – 55.8 % On and off throughout the year – 26.1 %	NA
16	Does household have adequate water for all requirements from existing source	Yes – 78.9 % Not adequate - have to use other sources – 4.5 %	NA
17	Is water from existing source used for drinking	Yes – 85.3 % No – 5.1 %	NA
18	Is water is purified before drinking	Yes – 15.7 % No – 84.3 %	NA

19	Utilisation of water for other purposes	Cooking – 94.1 Washing utensils – 98.6 Bathing – 98.6 Washing clothes – 97.7 Watering cattle – 47.7 Cleaning house – 85.9 For kitchen garden – 18.6	NA
20	Quality of Water	Good – 58.9 % Average – 36.3 % Poor – 4.9 %	NA
21	Distance of water source from house	Within premises – 90.6 % < 50 metres – 4.5 %	Within premises – 81.6 % Near premises – 12.7 %
22	Is water pressure good during summer	Yes – 80.8 percent No – 18.8 %	NA
23	Any problem faced during past 12 months with regard to water from existing source	Yes – 16.4 % No – 83.6 %	NA
24	Problem in terms of Drinking water quality-main water source	Unacceptable taste – 24.7 % Unacceptable smell – 10 % Not clear – 17.5 % High iron content – 3.4 % Unacceptable quality because of fluorides – 2.6 % No problem – 60.8 %	NA
Section III – INFORMATION RELATED TO PIPED WATER SUPPLY			
25	Scheme under which water is supplied	Single village scheme – 59 % Multi village scheme – 36.5 % Mini-village scheme – 1.6 %	NA
26	Frequency of piped water supply	Daily – 87.3 % Alternate days – 5.8 % Less than three days a week – 5.5 %	NA
27	Number of times a day water is supplied	Once – 24.7 % Twice – 65.7 % 24 hours – 5.4 %	NA
28	Duration of water supply	0 to 5 hours – 97.6 % 6 to 10 %– 1.8 %	NA
29	Households having water tank to store water	Yes – overhead – 41.9 % Yes - at ground level – 26.1 % Yes - under ground – 16.2 % No – 14.5 %	NA
Section IV – PAYMENT OF WATER BILL			
30	Does household pay for water supply	Yes – 54.1 % No – 45.9 %	NA

31	How often bill is paid in a year	Monthly – 87.6 % Bimonthly – 6.8 % Never – 0.2 %	NA
Section V – SANITATION RELATED INFORMATION			
32	Access to toilet	Yes- 83.8 % No – 16.2 %	Yes – 70.4 % No – 29.6 %
33	Type of toilet	Bore well Latrine – 9.4 % Single pit toilet – 33.9 % Twin pit toilet – 21.6 % Toilet with Septic tank – 32.3 % VIP Toilets – 2.1 % Toilet attached to a sewerage system – 0.7 %	**Flush/pour flush latrine** Piped sewer system – 5.9 % Septic tank – 32.6 % Other system – 4.2 % **Pit latrine** with slab/ventilate – 22.5 % without slab/open pit – 4.6 %
34	Latrine pit attached to Toilet	Brick lined in a honey comb structure – 48.1 % Unlined (kutcha) pit – 51.9 %	NA
35	Whether septic tank connected to open drain or a sewerage connection	Open drain – 54.3 % Sewerage connection – 29.4 %	NA
36	Functional Status of the toilet	Functional – 98.6 % Non- functional – 0.5 %	NA
37	What household members do in absence of household toilet	Open defecation – 96.1 % Use neighbour's/relative's toilet – 3.6 % Use community toilet – 0.3 %	NA
Section VI: SOLID AND LIQUID WASTE MANAGEMENT			
38	Door to door garbage collection	Yes – 2.2 % No – 97.8 %	NA
39	Disposal of household garbage in absence of door to door collection	Outside in house backyard – 19.9 % Neighbourhood garbage dump – 6.4 % Village garbage dump – 11.4 % Agricultural fields – 19 % On the roadside – 42.1 %	NA
40	Waste water drainage system	Underground drainage network – 4.2 % Covered drainage surface drain – 2.9 % Open surface drain – 89.8 % No drain – 5.1 %	Closed drainage - 9 % Open drainage – 72 % No drainage – 19 %
41	Disposal of waste water in absence of drainage system	Outside the house – 50 % Backyard – 19.7 % Soak pit – 17.2 % Pooled outside the house – 9 % Informal connection to open drains/depressions – 4.1 %	NA
Section VII – HEALTH AND HYGIENE			
42	When members of the household wash hands	After Defecation – 97.7 % After cleaning small child defecation – 62.4 %	NA

		Before eating – 95.7 % Before cooking – 84.7 % Before serving food – 72.4 % Every time after returning home – 33.6 % During bath – 41.4 %	
43	What material is used for washing hands before eating	Soap – 92.6 % Ash – 20.8 % Sand – 7.4 Only water – 15.9 %	NA
44	What material is used for washing hands after defecation	Soap – 97.2 % Ash – 4.6 % Sand – 8.7 % Only water – 5.3 %	NA
45	Major diseases	Frequent diarrhoea – 18.9 % Jaundice, typhoid etc. – 12.7 % Yellow and broken teeth – 12.9 % Malaria – 15.4 % Worm infestation – 8.3 %	NA
Section VIII – HEALTH SERVICES			
46	Are there government health volunteer groups in the community	Yes - 5.8 % No – 94.2 %	NA
47	Activities carried out by health volunteers	Inform about safe hygiene and sanitation practices – 40.1 percent Ensure regular treatment of water – 43.8 % Organise IEC activities – 19 %	NA
Section IX – STORAGE OF DRINKING WATER			
48	Whether drinking water is stored above ground level and out of reach of household pets and small children	stored above ground level but within reach of household pets and small children – 14.1 % above ground level and out of reach of household pets and small children – 80.9	NA
49	Whether storage vessel is kept covered	Yes – 94 % No – 6 %	NA
50	Way of taking out water from the vessel	Pours water by tilting – 26.3 % Retrieves water through a long handled ladle – 12.1 % Pours out from plastic bottle – 28.8 % Takes water out from tap in storage vessel – 20.6 % Directly from water source – 5.9 % Dips cup/mug inside storage container – 6.3 %	NA
Section X – GRIEVANCE REDRESSAL			

51	Households having any complain about water supply	Yes – 5.1 % No – 94.9 %	NA
52	Where complaint is lodged	Panchayat – 46.3 % GPVWSC – 14 % Pump operator – 11.6 % SNK – 1.7 % Did not lodge a complaint – 26.4 %	NA
53	Was complaint resolved	Yes – 19 % No – 81 %	NA
54	Whether satisfied with the way complaints are resolved	Very satisfied – 11.6 % Somewhat satisfied – 5.8 % DK/CS – 82.6 %	NA
Section XI – COMMUNICATION MEDIUM AND BEHAVIOUR			
55	Newspaper reading habit	Yes – 80 % No – 20 %	NA
56	Main source of information	Watch TV – 100 % Listen radio – 50 % Read Newspaper – 45 %	NA

Reason for the difference in result of six districts study and census 2011

a. **Water supply –** According to the result of the study carried out in six districts of Punjab, percentage of households having tap connection with piped water supply as main source of water is 55.7 percent, tube well/bore well is 21.9 percent and hand pump is 9.2 percent. However as per census 2011, piped water connection (tap water from treated source and tap water from untreated source) has reached around 35 percent households, tube well/bore well is used by 28 percent households as main source of water supply while corresponding figure for households using hand pump is 33.8 percent.

   There is significant difference in the figures related to access to piped water connection as well as use of hand pump. Percentage for piped water connection is quite high according to the present study while for hand pump percentage has come down, when compared with census 2011. The main reason could be the fact that census was carried out in 2011 while the present study has been carried out in the year 2014, and there is possibility of development taken place in terms of providing piped water connection to all. Another reason could be the fact that census result is for the entire state while the present study covers six districts only.

b. **Sanitation:** According to the present study more than 80 percent of the households have access to toilet facility within their premises however according to census 2011 around 70 percent of the households has toilet facility.

In this case also difference in the time period when the studies were carried out as well as size of the sample could be the main reason behind the gap. Steps must have been adopted 2011 onwards to improve the accessibility of toilet for rural households in Punjab.

c. **Waste water drainage system:** There is remarkable difference in percentages showing coverage of open drainage system. According to present study, coverage is almost 90 percent while according to census 2011 coverage is 72 percent.

Appendix C. Proceedings Workshop

Proceedings – Social Assessment & Social Management Framework

Venue: Hotel Shivalik View, Sector 17, Chanidgarh, Date: 26.11.2014

C.1 Background

As per the World Bank's safeguard policy - 'BP 17.5 – Disclosure of Information', the State Program Management Cell (SPMC) of the Govt., of Punjab organized the captioned workshop.

Mott MacDonald Pvt Ltd (MMPL) presented the SA and SMF study which was discussed during the workshop with various stakeholders, and their comments/ suggestions are outlined below:

C.2 Performance Indicator

SPMC's Superintending Engineer cum Senior Programme Specialist, advised to mention the performance monitoring indicators with their frequencies as well as person responsible.

C.3 Institutional Set-up

MMPL proposed the institutional arrangement to take care of social development/ management.

SPMC's Superintending Engineer cum Senior Programme Specialist, stated that the proposed Institutional Structure is only the suggestion of the Consultant at this stage, which would be further evaluated, discussed and finalized at State Govt., level with their mode of employment, in due course.

Superintending Engineer (Gurudaspur) commented that certainly there is need of social persons; in absence of these staff, field engineers are being overloaded with social works.

Superintending Engineer (Mr. Gupta) commented that ASHA workers are always missing from the scene, and their presence/ contribution at GPWSC level is non-noticeable.

C.4 Women Empowerment

MMPL proposed to increase the women participation at GP level, by ensuring at least 30% reservations for women.

SPMC's Superintending Engineer cum Senior Programme Specialist, too commented that there is certainly issue at village level and women participation is very-very low which is not desirable. He also advocated for minimum 30% participation of women.

C.5 Capacity Building

MMPL proposed the capacity building at various levels/ stakeholders.

SPMC's Superintending Engineer cum Senior Programme Specialist emphasized on capacity building at village level; he emphasized to provide adequate trainings to the Social Mobilisers.

Officer (Hoshiyarpur) commented that GPWSC's built capacity is lost immediately as soon as a new elected Sarpanch comes in the picture, which is detrimental to the scheme's performance.

C.6 Conflict Management

During the course of discussions, it was emerged that there are expected conflicts at village level due to change of the elected representative (Sarpanch), formation of different groups at village level with difference of opinions/ mindset/ different political affiliations.

SPMC's Superintending Engineer cum Senior Programme Specialist opined that since Sarpanch would be defacto Chairman of the GPWSC; therefore, change of chairman is inevitable. However, the other members should serve the GPWSC as per the original envisaged tenure. This arrangement would facilitate in gradual/ smooth transfer of scheme handing over.

C.7 Other Suggestions

The Superintending Engineer (Ferozpur, Mr. Talwar) opined that the selection of scheme should be demand driven.

There has been consensus among department officials that there is shortage of vehicles particularly for movement of Field Engineers, and this should be addressed at the earliest possible time.

There was emphasis on water conservation at village level.

C.8 Conclusion

The World Bank advised SPMC make the final SA report public through their website; and give NOC to World Bank so that they could also make the report public on World Bank's website.

Appendix D. Village Level Case Studies

D.1 Gram Panchayat – Bhangchari, Sri Muktsar Sahib

D.1.1 Gram Panchayat Profile

Bhangchari is a village in Sri Muktsar Sahib district. It has an area of 1,287 hectares (3,180 acres) and a population of 3722 according to 2011 Census. There are 1961 male and 1761 female. The SC population is 1316. There are total 633 households. It falls under the jurisdiction of the Malout municipal council. The nearest railway station is at Sri Muktsar Sahib which is 13 kilometers away. The link roads are not in good condition. Bhangchari has a government primary school and a government high school. The Malout-Tamkot road is 2 kms east of the village, and Sri Muktsar Sahib-Abohar road is approximately 4 kms to the west. Majority of the population consists of Brar Jat Sikhs. The main source of livelihood is agriculture.

D.1.2 Participatory Rural Assessment

- PRA exercise reflected that in the village almost all the people have piped water connections though some of the Scheduled Caste households do not have piped water connections. The households which do not have piped water connections take water from their neighbourhood households. Also, most of the SC households in the village do not have toilets in their houses.
- So far as quantity of water supplied is concerned, the participants said that demand for water increases in the summer but due to electricity shortage, the duration of the water supply is less so sometimes ater flow is very bleak in the household connections. It was further mentioned that so far as no scarcity of water has been faced by the households because majority of the people in the village have water storage tanks in their houses, hence despite electricity shortage they never face water inadequacy. Further, it was found that Gurudwaras and Schools have been provided free of cost water connections.
- According to the participants there are no issues related to the quality of water in the village. The open Canal is used as water supply source in the village. It was observed that villagers have less knowledge about water quality and contamination hence they are unable to raise and water quality issues. Further, it was noted that they need training and capacity building for better operation and management of the scheme.
- STP Plant for Sewer system has been constructed in the village but not fully operational, many households have been connected to the STP. PRA reflected that majority of the households have toilet facilities in their houses.
- On the issue of water borne diseases, cases of Malaria are mostly found in this village. In 2013, there were around 150 cases of Malaria, 25 cases of Typhoid, 25 cases of jaundice and 12 cases of cancer were found. In 2014 till date, 20 cases of typhoid and 5 cases of jaundice have been reported.
- So far as tariff is concerned, Rs. 100 per month is being paid by each household for water supply connection. Those households who have other water supply source in their house (like bore well etc.) are not willing to pay for water connections.
- Participants informed that during the rainy season water logging problem is faced because it is a low lying area and there are no roads.
- There is a toll-free help line number at district level for reporting problems in water supply and other grievances

D.2 Gram Panchayat – Sangla, Monga

D.2.1 Gram Panchayat Profile

Sangla is located in the taluk of Kot-ise-khan and district of Moga. It is located 17 kms towards North from District headquarters of Moga and 185 kms from State capital Chandigarh. The postal head office is Dharamkot. Sangla is surrounded by Moga-I Tehsil towards South, Zira Tehsil towards west, Moga Tehsil towards South. The nearest cities to Sangla are Moga, Zira, Bhagha Purana and Jalandhar Cant. This place is in the border of the Moga District and Firozepur District in Punjab. There is no railway station near Sangla within 10 kms. However Jalandhar City Railway Station is a major railway station 68 kms near to Sangla. Punjabi is the local language spoken here. The altitude of Sangla is 221 meters above mean sea level. So far as Demographics of Sangla are concerned, the total population is 875 out of which male are 470 and female are 405.

D.2.2 Participatory Rural Assessment

- According to the participants there is almost 100% piped water connections in the village. No water scarcity is reported in the village and quantity of water supply to the HH is adequate. They pay Rs. 100/- per month for water supply.
- It was conveyed that GPWSC should be given fund for maintenance of the water supply infrastructure, they also conveyed that there is need of a generator for water supply and funds should be provided for the same.
- They informed that around 50% households in the village have sewage connections, charges for sewerage connections are not decided yet by the community. They informed that when at least 80% households will be covered for sewage connections only then the operational cost will be calculated and charges will be decided accordingly.
- So far as water borne diseases are concerned, it was conveyed during the PRA that around 10 cases of Jaundice were reported in 2013 whereas 5 cases have been reported this year till date.
- It was reported that in general village women do not own any property in their names and do not get a share of parental property. It was also reported by the BPL women that though their family had received Indra Awas dwellings but the land is not registered in name of female of the households. Due to weak enforcement of laws protecting them, women continue to have little access to land and property.
- During interactions with women, many cases of physical violence (murder, beating, burning of not just the panchayat candidates but their families as well), threats and intimidation of women candidates in last Panchayat elections were narrated. In some cases, women candidates and their families had to face violence for standing against male candidates who wanted to remain in power and get elected unopposed. This clearly indicates that gender issues need to be addressed in order to bring the females at par with their male counterparts in the State.

D.3 Gram Panchayat – Jhaner, Sangrur

D.3.1 Gram Panchayat Profile

Jhaner village falls under Malerkotla block of Sangrur district. The village is located 52km from district headquarter Sangrur on Malerkotla-Raikot road. The area of village is 780 hectares. The population of the village is about 2363 as per census 2011. There are 1258 male and 1105 female. SC population is 583. The village has total 392 households (HH). Agriculture and allied agriculture is the main economic activity of the village, most of the working force is engaged in farming and other allied agriculture activities. The village is getting drinking water from single village water supply scheme. Almost all the households have taken private connection and using it for drinking, bathing, cleaning of houses and for cattle purposes. The GPWSC is responsible for operation and maintenance of the scheme.

D.3.2 Participatory Rural Assessment

- The village has water connection through pipeline to each HH. Water is extracted through tube well and it is stored into overhead tank. Almost all the HHs have private connection and water is used for drinking, bathing, cleaning and for cattle. No public stand post or hand pump was found in the village. The water tariff is fixed and it is Rs.100 per HH per month. Villagers are facing shortage of water and PRA reflected the need for more water supply. It was recorded during the PRA that the villagers do not understand the water quality issues, they use water for drinking without filtration.
- Recently sewer system has been constructed in the village and few HHs have taken connection.
- According to participants, most of the households have septic tank toilet facility in their house. The PRA also reflected that villagers were dumping solid waste at a common place in the village from where it is finally thrown into agriculture field or sometimes the villagers burn it. Liquid waste is drained through the drainage system which is available in the village and finally goes into the community pond in the village.
- During PRA exercise, it was reported that different castes are residing in the village but no caste has been excluded from the water supply network and all are getting equal amount of water they require.
- Further, villagers and members of water and sanitation committee have shown their interest for managing drinking water infrastructure for its sustainability. They reflected the need for training on operation and management of the scheme. They also expressed that the electricity tariff is quite high.
- They are aware of the water borne diseases but the community did not report incidence of any diseases related to water and sanitation in recent times. The villagers have not been able to make significant impact on abatement of pollution and engage the governmental organisations to deal with the same.

Figure 10.1: FGD at Jhaner

Figure 10.2: Overhead Tank at Jhaner

Source: MM Stuy

Source: MM Study

D.4 Gram Panchayat – Bhajauli, SAS Nagar

D.4.1 Gram Panchayat Profile

Bhajauli village falls in Majri block of Sahibzada Ajit Singh Nagar (SAS Nagar). The village is located 36 kms towards west from the district headquarter and 40 kms from State capital Chandigarh. The population of the village is about 1101 as per census 2011. The village has total 186 households (HH). During discussions, it was found that more than ninety percent of workforce is engaged in farming and allied agricultural activity. Some youth of the village are also engaged in non-agricultural activity as the village has the advantage of proximity to Mohali city. The village is getting drinking water from single village water supply scheme. Almost all the households have private connection and are using it for drinking, bathing, cleaning of houses and for cattle.

D.4.2 Participatory Rural Assessment

- The village is getting water through pipeline with individual HH connection. Water is extracted through tube well and it is stored into overhead tank. Almost all the HHs have private connection and water is used for drinking, bathing, cleaning and for cattle. Villagers have opined that there is shortage of water and supply should be increased. The villagers do not have any knowledge water quality aspects; they use water for drinking without filtration. No public stand post or hand-pump was found in the village. All HHs have piped connection to their houses. The water tariff depends on the consumption of the water and it is measured through water meter.
- According to the participants most of the households (HH) have toilet facility in their house. It is connected with septic tank.
- Villagers dump solid waste in a common place in the village and it is finally dumped into agriculture fields or burnt. Liquid waste is drained through drainage system existing in the village which finally goes to community pond in the village.

- The PRA exercise reflected that villagers and members of Water and Sanitation Committee have keen interest in the operation and management of Drinking water infrastructure for its sustainability. But they are not interested to take this up due to high electricity tariff.
- Different castes reside in the village but no caste is excluded from water supply network and all are getting water.
- Villagers seem to understand the basic hygienic practices like use of safe drinking water, washing of hand before meal by soap, washing of hand after toilet by soap particularly for children. The participants informed that Community has not been suffering from any water borne diseases in recent times.
- Women GPWSC members were not found very much aware on operation & maintenance related issues, in general women of villages were not found having ownership of property
- Few cases of physical violence against women were also discussed during the discussion. This indicates that women related issues which may require to be address sensitively in order to bring the females at par with their male counterparts in the State.

Figure 10.3: FGD exercise at Bhajauli

Source: MM Study

Figure 10.4: Drainage from house at Bhajauli

Source: MM Study

D.5 Gram Panchayat – Badial, Hoshiyarpur

D.5.1 Gram Panchayat Profile

As per 2011 census, Badial has population of 976 people and 181 households. Piped water supply was commissioned in the village in the year 2008, source of water supply is by Tube-well. Till August 2014 total 180 non-metered water connections have been provided in the village. The sewerage scheme's work (waste stabilization pond) is in progress, length of sewer network is around 4497 mtr. In the village. Households use septic tank sanitation system.

D.5.2 Participatory Rural Assessment

- The participatory rural appraisal (exercise) started with discussion regarding the main economic activity of the village which is agriculture. During discussion it was found that more than ninety percent of

workforce is engaged in farming and allied agriculture activity. It highlights overdependence of the villagers on agriculture related activities.

- Further villagers stated that most of the households (HH) have toilet facility in their house and it is connected with septic tank. Also sewer system has been constructed recently within the village and it is supposed to be functional by the first week of October. 131 HHs have applied for the sewer connection.
- The village is getting water through pipeline to each HH. Water is extracted through tube well and thereafter supplied to village directly as there is no overhead tank constructed for storage. Earlier almost six year back the village was part of multi village scheme and it was getting drinking water from Phulahi multi water scheme. No public stand post or hand pump was found in the village. The water tariff is fixed by GPWSC and it is Rs100 per HH per month. The villagers opined that they face difficulty in meeting their daily needs of water as supply is not at par with the demand.

Figure 10.5: PRA Exercise at Badial

Source: MM Study

Figure 10.6: Water supply in house in Badial

Source: MM Study

- Villagers said that they do not face any major problems related to water quality and use water for drinking without any filtration. They, of course mentioned that there is sand in water supplied to them.
- The villagers informed that liquid waste is drained out through drainage system as available in the village. The drainage is connected to the community pond in the village.
- In the village people from various castes reside but all are getting equal amount of water as per requirement. Every HH have private connection and they are getting water in their house from pipeline. Also, vvillagers and members of water and sanitation committee showed their interest for managing Drinking water infrastructure for its sustainability.
- The villagers have very generic knowledge about water quality and contamination. They are well aware about the water borne diseases. Also, villagers are aware about the electricity pricing and they informed that the current electricity tariff is Rs 7.50 per unit.
- The GP water and sanitation committee (GOWSC) is the only association in the village. It was found to be an organisation supporting the piped water scheme.
- Most of the villagers opined that their knowledge about the safe drinking water is from newspapers and TV advertisements. Also IEC specialist and Government officials have been spreading awareness regarding this. The members of GPWSC and villagers are well aware about the management of

community based infrastructure. Some of the members of GPWSC had gone to Khadoor Sahib in Taran Taaran District for exposure visit.

- The villagers are aware of safe drinking water, washing of hand before meal by soap and washing of hand after toilet by soap. They are aware about hygiene of children as well.

D.6 Gram Panchayat – Harror Khurd, Amritsar

D.6.1 Gram Panchayat Profile

Village Harror Khurd is located in Dist. Amritsar, 6kms from Ajanta – Fatehgarh Churian Road. The nearest railway station is Fatehgarh Churian around 13kms away. The nearest post office is in village Chamiari around 4kms from Harror Khurd. It is 232 kms from the State Capital Chandigarh. The village is located amidst excellent natural settings with scattered habitations over large area, the topography is plain with a mild slope from north to south-west and south to south-west towards identified site for sewage treatment plant. The village has a strong social fabric of Hindus and Sikhs. Total area of the village is 277 Hectare. Total households in the village are 160 out of which 45 are Scheduled Caste and remaining is from general category. The present population is about 1121 in the village. The village population is engaged mostly in service sector, commercial activities and agriculture.

D.6.2 Participatory Rural Assessment

- The process of PRA started with discussions on main economic activity of the village. During discussions it has been found that more than ninety percent of workforce is engaged in farming and allied agriculture activity. The main source of drinking water is tube well within the village. Earlier the village was part of multi village scheme and drinking water was supplied from Phulahi multi water scheme. The water tariff has been fixed by GPWSC which is INR100 per HH per month.
- Further, villagers informed that water is supplied to their households through pipeline. Water is extracted through tube well and it is stored in overhead tank. Almost all the HH have taken private connection and water is used for drinking, bathing, cleaning and for cattle. Villagers also mentioned the shortage of water mainly during the months of May and June.
- The villagers informed that they do not face any problem regarding quality of water. Villagers use water for drinking without filtration.
- Villagers informed that they dump solid waste at common place in the village.
- Villagers responded that out of 160 households (HH), 34 HHs do not have toilet facility in their house. The toilet technology is septic tank. Now sewer system is being constructed within the village and it is supposed to be functional by October 2014.

Figure 10.7: FGD at Harror Khurd Figure 10.8: Media at Harror Khurd

Source: MM Study

Source: MM Study

- The Community has not suffered from any diseases in the recent times.
- All HHs have private connection and they are getting water through pipeline. The villagers and member of water and sanitation committee showed their interest for management of Drinking water infrastructure for its sustainability
- The villagers are well aware about water quality and contamination. They are aware about the water borne diseases.
- Village water and sanitation committee is the active association in the village. Most of the villagers opined that their knowledge about the safe drinking water is from newspapers and TV advertisements. The members of GPWSC and villagers were found to be aware about the management of community based infrastructure. Some of the members of GPWSC have visited Khadoor Sahib in Taran Taaran District for exposure visit.
- Now, villagers are aware about safe drinking water, washing of hand before meal by soap, washing of hand after toilet by soap. They are attentive towards hygiene of children as well. Villagers watch TV and they like news programmes in Punjabi language. They watch pollution related advertisements/message during these news programmes.

Appendix E. Details of existing staffs

Table 10.15: Details of Sanctioned Posts and Vacant Posts in SPMC

Sr. No.	Name of the post	Sanctioned Posts by World Bank	Number of Actually Working	No. of Vacant Posts
Details of Sanctioned Posts and Vacant Posts in SPMC				
1	Unit Coordinator (M&E)	1	1	0
2	Joint Controller (F&A)	1	1	0
3	Sr. Community Mobilization Specialist	1	1	0
4	Finance Manager	1	1	0
5	Administrative Officer	1	1	0
6	SDE -cum- Program Management Officer	1	0	1
7	Sub Divisional Engineer	2	1	1
8	Assistant Engineer cum Care Taker	1	1	0
9	Procurement Specialist	1	0	1
10	Assistant Procurement Specialist (in the rank of SDE)	2	0	2
11	Data Validation Officer (in the rank of SDE)	1	0	1
12	Head Draftsman	2	0	2
13	Junior Engineer	1	1	0
14	Environmental Management Specialist	1	1	0
15	Assistant System Analyst	1	1	0
16	MIS Specialist	1	1	0
17	MIS Technical Operator	1	1	0
18	Network Administrator	1	0	1
19	Sr. HRD Specialist	1	0	1
20	IEC Specialist	1	0	1
21	Communication Specialist	1	0	1
22	Social Development Specialist	1	1	0
23	Sustainability Assessment Specialist	1	1	0
24	IT Specialist	1	0	1

Sr. No.	Name of the post	Sanctioned Posts by World Bank	Number of Actually Working	No. of Vacant Posts
25	Finance Officer	1	1	0
26	Stenographer	1	1	0
27	Receptionist	2	0	2
28	Accounts Assistant	2	2	0
29	Office Assistant	11	6	5
30	Data Entry Operator	13	6	7
31	Driver	12	9	3
32	Supporting Staff	12	11	1
32	Watch & Ward	4	3	1
	TOTAL	**85**	**53**	**32**
Source :SPMC				

Table 10.16: Detail of Sanctioned Posts and Vacant Posts in DPMCs

Detail of Sanctioned Posts and Vacant Posts in DPMCs				
Sr. No.	**Name of the post**	**Sanctioned Posts by World Bank**	**Number of Actually Working**	**No. of Vacant Posts**
1	Sub Divisional Engineer	20	14	6
2	Junior Engineer	40	29	11
3	HRD Specialist	41	26	15
4	IEC Specialist	40	19	21
5	Finance Officer	20	16	4
6	MIS Technical Operator	22	18	4
7	Accounts Assistant	14	8	6
8	Data Entry Operator	40	19	21
9	Driver	40	34	6
10	Other Support Staff (Peon, Chowkidar, Mali & Sweeper)	40	30	10
	TOTAL	**317**	**213**	**104**
	GRAND TOTAL	**402**	**266**	**136**
Source :SPMC				

Appendix F. Terms of Reference (TOR) for Staffs to be appointed for

The proposed terms of reference for the staffs to be placed in social development unit is detailed below;

F.1 TOR of Senior Social Development Specialist (SSDS)

One Senior Social Development Specialist is proposed to be placed at State level. The candidate (he/she) should be Post-Graduation in Social Sciences/Economics/ and other related subject from any recognized Institution with 15 years' experience in social development sector with proven project specific experience in planning, developing and implementing community mobilisation activities in water & sanitation sector. The professional will serve SWSM/SPMC should have experience of tackling critical issues and or crisis situations related to conflict management, gender inclusion, social audits, working closely with communication team etc. Desired experience will be prior involvement in similar assignment & SECTOR REFORM assignments. SSDS will report to the head of Social Development Unit.

The key responsibility of the expert is as mentioned below;

- Planning of social mobilization process
- Phasing and consolidation of Implementation of Various Action Plans
- Gender Action Plan
- Community Participation Plan
- Social Management Plan
- Guidance for Social Audits
- Monitoring of the SMF plans
- Planning & Implementation of Capacity Building initiatives for addressing social issues
- Plan Orientations and Workshops at various levels
- Plan Training of different Stake Holders
- Need Assessment of Capacity Building as per changing requirements
- Training of Social Development Specialists and Social Mobilisers
- Monitoring and feedback of the targets and achievements done by Social Development Specialists and Community Mobilizers.
- Field Visits for supportive supervision to community mobiliser for assessing the direction and quantum of work done and its impact in the field.

F.2 TOR of Social Development Specialist at Divisional Level (SDS)

A total 21 Social Development Specialist is proposed to be placed at Circle level. The candidate (he/she) should be Post-Graduation in Social Sciences/Economics/ and other related subject from any recognized Institution with 10 years' experience in social development sector with proven project specific experience in planning, developing and implementing community mobilisation activities in water & sanitation sector. The professional will serve at Divisional Level should have experience of tackling critical issues and or crisis situations related to conflict management, gender inclusion, social audits, working closely with communication team etc. SDS will be reporting to Senior Social Development Specialist. Desired experience will be prior involvement in similar assignment & SECTOR REFORM assignments

- Phasing and consolidation of Implementation of Various Action Plans
- Gender Action Plan
- Community Participation Plan
- Social Management Plan
- Guidance for Social Audits
- Monitoring of the SMF plans
- Planning & Implementation of Capacity Building initiatives for addressing social issues
- Plan Orientations and Workshops at various levels
- Plan Training of different Stake Holders
- Need Assessment of Capacity Building as per changing requirements
- Training of Social mobilisers
- Monitoring and feedback of the targets and achievements done by Community Mobilizers.
- Field Visits for supportive supervision to community mobiliser for assessing the direction and quantum of work done and its impact in the field.
- To be involved in training of community

F.3 TOR of Social Mobiliser at Panchayat Level

One social mobilisers will be responsible for 10 panchayats. The candidate (he/she) should be Graduate in Social Sciences/Economics/ and other related subject from any recognized Institution with 5 years' experience in community mobilisation with proven project specific experience in implementing community mobilisation plans, training and capacity building of groups and panchayats. The professional will serve Panchayat level and report to Divisional level Social Development Specialist. They should have experience of tackling critical issues and or crisis situations related to conflict management, gender inclusion, social audits etc.

- Identification of Panchayats
- PRA, Community Mobilization, Identification of Issues, and implementation of inclusion plan
- Support in DSR preparation and support GPWSC for its validation
- Supporting GPWSC for opening of Bank accounts and its management
- Planning and Implementation of Capacity Building Plan
- Capacity building of GPWSC, GP and community on Social Aspects
- Training on tariff fixing, conflict management, book keeping of GPWSC Members
- Training on operation & maintenance plan of GPWSC Members
- Support in gender inclusion & mainstreaming
- Support in disclosure of all major documents
- Support in operation & maintenance plan