

WAR for WATER

Survey Findings for Location Selection

November 2009

Table of Contents

Chapter 1- Context of Study..... 3

 Locations provided..... 4

 Objective of Study 8

 PERT 9

 Methodology..... 10

Chapter 2 - Clustering of the Villages..... 12

Chapter 3 – Water Demand 18

Chapter 4 – Water Resources..... 35

Chapter 5 – Decision Support 88

ANNEXURE - 95

WAR for Water

Chapter 1- Context of Study

While awarding judgment on a Public Interest Litigation Supreme Court of India directed the Government of India to constitute a Committee of Eminent Scientists and provide all resources necessary to address and solve the problem of water scarcity in the country through recourse to research and technology on 26th March 2009.

Subsequently, through an order dated 28th April 2009, the Supreme Court appointed Secretary, Union Ministry of Science and Technology as the Chairman and Secretary, Union Ministry of Water Resources as member and directed the Committee to find out solutions to problem of water scarcity on a war footing through an order dated 28th April 2009.

The Union Ministry of Science and Technology recognized the need for imminent technical solutions to the problems of water scarcity in the country. Challenges relating to water scarcity can be traced to several causes. Some such reasons are a) decreasing per capita availability of fresh water, b) loss of quality of available fresh water on account of contamination and poor management practices, c) inadequate harvesting of rain water resources, d) excessive and inefficient use of water in some human activities, e) inability to use available water on account of natural contamination, for example, with arsenic, fluoride, iron etc, f) non-potability on account of salinity, g) non-viability of some available technologies like reverse osmosis and distillation in several socio-economic environments, h) inadequate water body management practices including lakes, reservoirs, rivers, ground water sources etc, i) inadequate flood water management systems, j) non judicious use of water without renovations and recycling and k) urbanization with insufficient infrastructure for sourcing, delivering and recovery of water for multiple use.

Data with regards to water challenges in different parts of nations was collected from states most of whom responded. This list of state suggested areas in context of their water problems was then collated by MST. The list comprised of 61 locations.

MST in the next step is floating an NIT for 10 sites. A data gathering and decision support research was therefore desired, which MIC has undertaken within a period of 30 days. This is a report of the findings of the field survey.

WAR for Water

Locations provided

Initially locations provided by the MST-DST to MIC are as below:

Table 1.1 – LOCATIONS FOR SURVEY

| S. No | Water Challenges | States | Location Details (District ,Block, Village) |
|-------|---|-------------------|--|
| 1 | Low per capita availability | Haryana | Distt: Mohindergarh, Vill: Khudana |
| | | Maharashtra | Distt: Ratnagiri, Block: Chiplun (25 villages) |
| | | Uttar Pradesh | Distt: Jhansi |
| | | Nagaland | Chiephobozou Range or Wokha Middle Range |
| | | Tamil Nadu | Distt: Sivagangai, Tirupatthur |
| | | Tripura | Distt: North Tripura, Block: Jampui Hills, Vill: Langthireck, Tuikrain para, Chhinslkang, Hmanpui, Sabul, Tlangsang, Vanghmun |
| | | Uttarakhand | Bagheswar, (Town: Bagheswar) |
| 2 | Quality deficit of available water for specified uses | Arunachal Pradesh | Distt: Pampumpare, Itanagar, Naharlagun |
| | | Haryana | Hisar (PHE Division Hansi: Vill: Bass) or Jhajjar (PHE Division No. 1, Jhajjar : Vill: Dighal) |
| 3 | Geological contamination through arsenic | Assam | Distt: Jorhat, Titabor or Distt: Dhubri, Dhubri |
| 4 | Contamination through fluoride | Assam | Distt: Kamrup, Birkuchi Bonda(Guwahati) or Distt: Karbi Anglong, Diphu |
| | | Gujarat | Distt: Patan, Taluka: Sidhpur, Vill: Sujarpura, Sidhpur Town or Distt: Patan, Taluka: Patan, Vill: Brahmanvada or Distt: Mehsana, Taluka: Unjha, Vill: Kamlai or Distt: Mehsana, Taluka: Visnagar, Vill: Gunja |
| | | Madhya Pradesh | Distt: Seoni., Block: Keolari Ghoorwada |
| | | Punjab | Distt: Muktsar, Block: Lambi, Vill: Killian Wali Vill: Chak Midu Khera, Channu & Warring Khera |

WAR for Water

| S. No | Water Challenges | States | Location Details (District ,Block, Village) | |
|-------|---|--|---|---------------------------------------|
| 5 | Contamination through iron | Chhattisgarh | Dist: Jashpur, 25 Villages of Manora block | |
| 6 | Contamination through multiple species | Manipur | Dist: Thoubal, Kakching or Moirang or New Lamka or Sanjenbam or Sekmai | |
| | | Rajasthan | Dist: Jaipur P. S. Sanganer (Vill: Shosinghpura, Kallawal, Surajpura, Manpura, Bhatawala, Dayalpura, Ganwar, Jatan, Purshottampura (Dadiya), Watika | |
| | | Karnataka | Distt: Gulbarga, Yadgir, Yelahar | |
| 7 | Biological contamination | Madhya Pradesh | Distt: Raisen, Block: Sanchi Vill: Bangwan, | |
| | | Kerala | Distt: Alappuzha, Kainakiri Panchayat or Distt: Ernakulam, Kadamakkudy Panchayat or Distt: Trivandrum, Vizhinjam Panchayat or Distt: Kannur, Madai Panchayat | |
| 8 | Alkali metal ion salinity # | Generic issue. Will be addressed nationally. | | |
| 9 | Alkaline earth metal salt salinity and hardness | Andhra Pradesh | Distt: Nellore, Madal: Nellore Rural, Vill: Buj Buj, Nellore, Kothur | |
| | | Punjab | Distt & Block: Muktsar, Vill: Bariwala & Mann Singh Wala | |
| | | Rajasthan | Sawaimadhopur, P. S. Bamanwas (Vill: Piplai, Sitor, Sitapura, Khedli, Dabar, Bamanbaroda) or Churu, P. S. Ratangarh (Vill: Bhudhwali, Bheenchri, Molasi, Seetsar, Budhawali, Menasar, or Pali, P.S. Pali (Vill: Denda, Bala, Padarla, Kurna, Girwar, Juna-Endla -II, Gudai, Dayalpura, Poopawas, Madri, Girdara- Khalsa or distt: Nagaur, P.S. Ladnu (Jaswantgarh,Kasumbi) or Dist: Bharatpur P.S. Nadbai (Vill: Medha Choli, Manjhi, Kheriya Joga, Henera, Sirsai, Basai Jat, Gangroli, Samantpura, Raisees, Mehraipura, | |
| | | | Tamil Nadu | Distt: Virudhunagar, Town: Mamsapuram |
| | | | West Bengal | Distt: Contai I |
| 10 | Storage capacity for seasonally available water | Meghalaya | Cherapunji | |
| | | West Bengal | Outskirts of Darjeeling Town | |

WAR for Water

| S. No | Water Challenges | States | Location Details (District ,Block, Village) |
|-------|--|--|---|
| 11 | Surface run-off on account of nature of geological terrain | Gujarat | Distt: Sabar Kantha, Taluka: Khedbrahma, Vill: Bharamia, Panthal or Distt: Sabar Kantha, Taluka: Meghraj, Vill: Mudshi or Distt: Sabar Kantha, Taluka: Malpur, Vill: Halodar or Distt: Sabar Kantha, Taluka: Bhiloda, Vill: Mota Kanthariya or Distt: Sabar Kantha, Taluka: Vijayanagar, Vill: Limbda |
| 12 | Water body disuse # | Generic issue. Will be addressed nationally. | |
| 13 | Mismatched rates withdrawal and recharging capacity | Kerala | Distt:Kasaragode, Delampady panchayat |
| 14 | Non-optimal use of water in agriculture # | Generic issue. Will be addressed nationally. | |
| 15 | Non-optimal use of water in industrial sector | Maharashtra | Distt: Sangli, Vill: Shirala (5 villages) |
| 16 | Unplanned water use and demand # | Generic issue. Will be addressed nationally. | |
| 17 | Contamination of water on account of pesticide and other use-derived residues# | Generic issue. Will be addressed nationally. | |
| 18 | Deficit of assurance for drinking water quality # | Generic issue. Will be addressed nationally. | |
| 19 | Sea water intrusion in coastal areas | Maharashtra | Distt: Thane, Vill: Palghar (Kelwa & Mahim) |
| | | West Bengal | Distt: North & South 24 Parganas |
| 20 | Evaporation loss from water bodies | Maharashtra | Distt: Akola, Kate Purna Irrigation Project |
| 21 | Improved water cycle management# | Generic issue. Will be addressed nationally. | |
| 22 | Reject management from water related technologies | Rajasthan | - |
| | | Tamil Nadu | - |
| 23 | Water winning and mining in water starved areas | Rajasthan | Pilani |

WAR for Water

| S. No | Water Challenges | States | Location Details (District ,Block, Village) |
|-------|--------------------------------|--|---|
| 24 | River flood management # | Generic issue. Will be addressed nationally. | |
| 25 | Wetland management # | Generic issue. Will be addressed nationally. | |
| 26 | Any Others (strontium, silica) | Punjab | Distt: Bathinda, Vill: Malkana, Giana & Jajjal |
| | | Andhra Pradesh | Distt: Prakasam, Mandal: Cheemakurthy, Vill: P. Naidupalem, Yerragudipalem, Mailavaram, Chemalamarry, Reddy Nagar or Distt: Srikakulam, Madalam: Kavity, Vill: Kavity |

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Objective of Study

- To map the available sources of water in selected villages all across India
- To collect site specific data on various locations with differing water challenges
- To map the seriousness of challenges in available water resource
- To collect the socio economic data for the population impacted by these challenges
- To assess the willingness of impacted population to pay to develop internal revenue and recovery models
- To assess the eagerness and capability of impacted population to contribute towards the project

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PERT

| Activity/ Milestones | Day | | | | | |
|--|-----|----|----|----|----|----|
| | 5 | 10 | 15 | 20 | 25 | 30 |
| Questionnaire & Checklist Preparation | ■ | | | | | |
| Questionnaire Printing | | ■ | | | | |
| Briefing of team | | | ■ | | | |
| Survey | | | ■ | ■ | ■ | |
| Data collection from secondary sources | | | ■ | ■ | ■ | |
| Data Analysis | | | | ■ | ■ | |
| Data compilation | | | | ■ | ■ | |
| Report Writing | | | | | | ■ |

After subsequent discussions with MST officials, additional data gather was assigned in order to assist MST in taking the decision and 15 additional days were provided.

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Methodology

| Activity | Process opted |
|--|--|
| Questionnaire Finalization | The rigorous process was opted for finalization the questionnaire: Version 1 – It was designed by the researcher team after brain storming Version 2 - It was designed after a long discussion on version 1 with the Principal Consultant Version 3 – It was designed after a Pilot study of five village of UP Version 4 – Version 3 was then shared with the MST and after discussion with them version 4 was designed Version 5 – Again Version 4 was shared with the MST and some correction were made Version 6 – Finally after some minor correction in version 5 the questionnaire was finalized by MST |
| Finalization of villages for survey | For the place finalization following guidelines were taken into consideration: <ul style="list-style-type: none">▪ Where exact villages were specified, they were followed.▪ Where exact villages were not specified, meetings were conducted with state S&T councils or discussion over the phone for taking a decision on the exact villages / urban areas. |
| Clusterization | <ul style="list-style-type: none">▪ Villages would be required to be clustered to bring them up to a population level of 10,000. In such a context the villages should be contiguous so that water distribution issues are common.▪ Where a single village has a population of more than 10,000, it is treated like a cluster.▪ Where a combination of villages collectively represents a population of 10,000, then that is taken as a cluster. |

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Legends for contamination/ water problem

In the report the following codes would be used for water problems:

| Water Challenges | Code |
|--|-------------|
| Alkaline earth metal salt salinity and hardness | AESS |
| Biological contamination | BC |
| Contamination through fluoride | CTF |
| Contamination through iron | CTI |
| Contamination through multiple species | CTMS |
| Evaporation loss from water bodies | ELW |
| Geological contamination through arsenic | GC |
| Low per capita availability | LPC |
| Mismatched rates withdrawal and recharging capacity | MRW |
| Non-optimal use of water in industrial sector | NOW |
| Quality deficit of available water for specified uses | QD |
| Storage capacity for seasonally available water | SCFS |
| Surface run-off on account of nature of geological terrain | SR |
| Any Others (strontium, silica) | SS |
| Sea water intrusion in coastal areas | SWI |
| Water winning and mining in water starved areas | WWM |

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Chapter 2 - Clustering of the Villages

Under the study a total of 122 villages spread across 48 tehsils, 40 districts across 19 states were covered. The clusterization is as below:

Table 2.1 – CLUSTERS DRAWN UP

| Contamination Code | Cluster Code | State (A) | District (B) | Tehsil/Taluka (C) | Village (D) | Population |
|--------------------|--------------|----------------|----------------|-------------------|-----------------|------------|
| AESS | CL1 | Andhra Pradesh | Nellore | Nellore | Bhujbhuji | 14750 |
| AESS | CL2 | Andhra Pradesh | Nellore | Nellore | Kothur | 20000 |
| AESS | CL3 | Punjab | Muktsar | Muktsar | Maan Singh Wala | 8000 |
| | | | | | Bariwala | 12000 |
| AESS | CL4 | Rajasthan | Nagaur | Ladnun | Jaswantgarh | 12000 |
| AESS | CL5 | Rajasthan | Nagaur | Ladnun | Kasumbi | 9000 |
| AESS | CL6 | Rajasthan | Sawai Madhopur | Bamanvas | Dabar | 4040 |
| | | | | | Sitor | 5000 |
| | | | | | Sitapura | 1500 |
| AESS | CL7 | Rajasthan | Sawai Madhopur | Bamanvas | Piplai | 7000 |
| | | | | | Bamanbaroda | 6000 |
| AESS | CL8 | Rajasthan | Churu | Ratanhgarh | Bhudhawali | 2500 |
| | | | | | Meenasar | 3000 |
| | | | | | Seetsar | 2400 |
| | | | | | Bheenchari | 1400 |
| AESS | CL9 | Tamil Nadu | Virudhunagar | Srivilliputhur | Mamsapuram | 17990 |
| AESS | CL10 | West Bengal | Purulia | Purulia | Ghangha | 8000 |
| | | | | Purulia 2 | Purda | 4000 |
| BC | CL11 | Madhya Pradesh | Raisen | Raisen | Mangaon | 5500 |
| | | | | | Parvariya | 1300 |
| | | | | | Pagnesar | 2600 |
| | | | | | Girvar | 1200 |
| BC | CL12 | Kerala | Ernakulum | Kanaiyanur | Kadamakudy | 15385 |

WAR for Water

| Contamination Code | Cluster Code | State (A) | District (B) | Tehsil/Taluka (C) | Village (D) | Population |
|--------------------|--------------|----------------|--------------|-------------------|----------------------|------------|
| BC3 | CL13 | Kerala | Alapuzha | Kuttanadu | Kainekeri | 26000 |
| CTF | CL14 | Assam | Kamrup | Noonmati | Birkuch | 2500 |
| | | | | Chandarpur | Bonda | 10000 |
| CTF | CL15 | Gujarat | Patan | Chanaswan | Brahmanwada | 4000 |
| | | | | | Borsum | 3008 |
| | | | | | Bhatsar | 3450 |
| CTF | CL16 | Gujarat | Mehsana | Visnagar | Paldi | 3008 |
| | | | | | Hasanpur | 3500 |
| | | | | | Gunja | 6000 |
| CTF | CL17 | Madhya Pradesh | Seoni | Keolari | Bibhari | 1560 |
| | | | | | Ghoorwada | 1237 |
| | | | | | Dutera | 1350 |
| | | | | | Sarekha | 1800 |
| | | | | | Sakri | 3200 |
| | | | | | Aarandia | 1150 |
| CTF | CL18 | Punjab | Muktsar | Malot | Killian Wali Mandi | 5300 |
| | | | | | Killian Wali Village | 6000 |
| CTF | CL19 | Punjab | Muktsar | Malot | Warning khera | 3200 |
| | | | | | Channu | 7300 |
| | | | | | Chak Medu Khera | 4373 |
| CTI | CL20 | Chhattisgarh | Jashpur | Jashpur | Gidha | 1470 |
| | | | | | Sonkyari | 1500 |
| | | | | | Andharjhar | 1340 |
| | | | | | Talasili | 1600 |
| | | | | | Aastha | 2100 |
| Manora | 2550 | | | | | |

WAR for Water

| Contamination Code | Cluster Code | State (A) | District (B) | Tehsil/Taluka (C) | Village (D) | Population |
|--------------------|--------------|-------------|--------------|-------------------|-----------------|------------|
| | | | | | Madhva | 1300 |
| CTMS | CL21 | Manipur | Bishnupur | Moirang | Moirang | 31256 |
| CTMS | CL22 | Manipur | Imphal west | Lamsang | Sekmai | 40000 |
| CTMS | CL23 | Manipur | Thoubal | Kakching | Kakching | 28724 |
| CTMS | CL24 | Rajasthan | Sanganer | Sanganer | Manpura Nagalai | 980 |
| | | | | | Purushottampura | 1500 |
| | | | | | Suraj pura | 600 |
| | | | | | Dayalpura | 800 |
| | | | | | Bhatawala | 600 |
| | | | | | Gavar jatan | 700 |
| | | | | | Shosinghpura | 1500 |
| | | | | | Kalawala | 5000 |
| | | | | | Gavar Brahmana | 750 |
| CTMS | CL25 | Rajasthan | Sanganer | Sanganer | Watika | 16000 |
| CTMS | CL26 | Karnataka | Gulbarga | Yadgir | Yelhari | 10480 |
| GC | CL27 | Assam | Jorhat | Titbor | Titbor | 25000 |
| LPC | CL28 | Haryana | Mohindergarh | Mahendergarh | Khudana | 9000 |
| | | | | | Garhi | 2000 |
| LPC | CL29 | Maharashtra | Ratnagiri | Chiplun | Aakale | 1801 |
| | | | | | Tivare | 1833 |
| | | | | | Kddavad | 1395 |
| | | | | | Dhamnavne | 1794 |
| | | | | | Kherdi | 10703 |
| LPC | CL30 | UP | Jhansi | Jhansi | Raksa | 11200 |
| | | | | | Ghisoli | 3500 |
| LPC | CL31 | Nagaland | Wokha | - | Lakhuti | 2270 |

WAR for Water

| Contamination Code | Cluster Code | State (A) | District (B) | Tehsil/Taluka (C) | Village (D) | Population |
|--------------------|--------------|-------------------|-----------------|-------------------|------------------|------------|
| | | | | | Yonchwcho | 1660 |
| | | | | | Pangti | 6240 |
| LPC | CL32 | Tamilnadu | Sivagangai | Thiruppathur | Thiruppathur | 23559 |
| LPC | CL33 | Tripura | North Tripura | Jampui hills | Lamgthireck | 2500 |
| | | | | | Tuikrain Para | 1440 |
| | | | | | Chhinslkang | 2100 |
| | | | | | Hmomplui | 2110 |
| | | | | | Sabul | 1860 |
| | | | | | Tlanasana | 1040 |
| | | | | | Vanahmun | 2100 |
| MRW | CL34 | Kerala | Kasragod | Kasragod | Delampady, Adour | 32687 |
| NOW | CL35 | Maharashtra | Sangli | Shirala | Natholi | 2455 |
| | | | | | Kande | 4115 |
| | | | | | Fakirvadi | 1490 |
| | | | | | Mangle | 8246 |
| | | | | | Chikhali | 3120 |
| QD | CL36 | Arunachal Pradesh | Papumapara | Naharlagun | Naharlagun | 40000 |
| QD | CL37 | Haryana | Jajjar | Beri | Dighal | 40000 |
| SCFS | CL38 | Meghalaya | Est. Khasi Hill | Shella Bhola | Cherapunji | 10000 |
| SCFS | CL39 | West Bengal | Darjeeling | Sukhiya Pokhri | Seyok | 2780 |
| | | | | Sukhiya Pokhri | Chamong | 2990 |
| | | | | Sukma Pokri | Molanty | 2660 |
| | | | | Sukhiya Pokhri | Gopal Dhara | 2650 |
| SR | CL40 | Gujarat | Sabar Kantha | Meghraj | Mudshi | 2500 |
| | | | | | Bodewada | 6665 |
| | | | | | Ramgadi | 3742 |
| SR | CL41 | Gujarat | Sabar Kantha | Malpur | Halodar | 6000 |
| | | | | | Ramboda | 4000 |

WAR for Water

| Contamination Code | Cluster Code | State (A) | District (B) | Tehsil/Taluka (C) | Village (D) | Population |
|--------------------|--------------|----------------|--------------|-------------------|-----------------|------------|
| SR | CL42 | Gujarat | Sabar Kantha | Bhiloda | Mota Kanthariya | 7000 |
| | | | | | Ramara | 5000 |
| SS | CL43 | Punjab | Bhatinda | Talwandi | Giaana | 3880 |
| | | | | | Malkanaa | 5000 |
| | | | | | Jajjal | 3400 |
| SS | CL44 | Andhra Pradesh | Srikikulam | Sarubujjili | Kavity | 11113 |
| SS | CL45 | Andhra Pradesh | Prakasam | Cheemakurthy | P. Naidupelm | 2792 |
| SS | | | | Podili | Mailavaram | 400 |
| SS | | | | Santhanuthlapadu | K V Palem | 2500 |
| SS | | | | Cheemakurthy | Yeragudipadu | 1000 |
| SS | | | | Cheemakurthy | Chemillemuri | 1475 |
| SS | | | | Veligandla | Reddy Nagar | 350 |
| SS | | | | Cheemakurthy | Pullikonda | 2200 |
| SWI | | | | CL46 | Maharashtra | Thane |
| | Mahim | 14916 | | | | |
| SWI | CL47 | West Bengal | 24 Praganas | Goshaba | Biraj Nagar | 5900 |
| | | | | | Bijoy Nagar | 6700 |
| WWM | CL48 | Rajasthan | Jhunjhunu | Jhunjhunu | Pilani city | 34091 |
| LPC | CL49 | Uttarakhand | Bageshwar | Bageshwar | Bageshwar | 7803 |

The total clusters and state wide distribution per water problem are therefore represented as on the next page:

WAR for Water

Table 2.2 GEOGRAPHICAL MAPPING OF WATER CHALLENGES

| States | AESS | BC | CTF | CTI | CTMS | GC | LPC | MRW | NOW | QD | SCFS | SR | SS | SWI | WWM | Grand Total |
|--------------------|-----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-------------|
| Andhra Pradesh | 2 | | | | | | | | | | | | 2 | | | 4 |
| Arunachal Pradesh | | | | | | | | | | 1 | | | | | | 1 |
| Assam | | | 1 | | | 1 | | | | | | | | | | 2 |
| Chhatisgarh | | | | 1 | | | | | | | | | | | | 1 |
| Gujarat | | | 2 | | | | | | | | | 3 | | | | 5 |
| Haryana | | | | | | | 1 | | | 1 | | | | | | 2 |
| Karnataka | | | | | 1 | | | | | | | | | | | 1 |
| Kerela | | 2 | | | | | | 1 | | | | | | | | 3 |
| Madhya Pardesh | | 1 | 1 | | | | | | | | | | | | | 2 |
| Maharashtra | | | | | | | 1 | | 1 | | | | | 1 | | 3 |
| Manipur | | | | | 3 | | | | | | | | | | | 3 |
| Meghalya | | | | | | | | | | | 1 | | | | | 1 |
| Nagaland | | | | | | | 1 | | | | | | | | | 1 |
| Punjab | 1 | | 2 | | | | | | | | | | 1 | | | 4 |
| Rajasthan | 5 | | | | 2 | | | | | | | | | | 1 | 6 |
| Tamil Nadu | 1 | | | | | | 1 | | | | | | | | | 2 |
| Tripura | | | | | | | 1 | | | | | | | | | 1 |
| UP | | | | | | | 1 | | | | | | | | | 1 |
| Uttarakhand | | | | | | | 1 | | | | | | | | | 1 |
| West Bengal | 1 | | | | | | | | | | 1 | | | 1 | | 3 |
| Grand Total | 10 | 3 | 6 | 1 | 6 | 1 | 7 | 1 | 1 | 2 | 2 | 3 | 3 | 2 | 1 | 49 |

Chapter 3 – Water Demand

Water demand is made up from:

1. Human demand for drinking
2. Human demand for non drinking (other uses)
3. Livestock demand
4. Crop/Irrigation demand
5. Industry demand

DRINKING WATER DEMAND

Population is taken based on a village level survey conducted not on the basis of census figures. The norms of drinking water per capita were multiplied

OTHER USAGE WATER DEMAND

Population is taken based on a village level survey conducted not on the basis of census figures. The norms of water per capita for non drinking were multiplied

LIVESTOCK WATER DEMAND

Population of live stock is also taken based on a village level survey conducted not on the basis of census figures. The norms of water requirement per livestock were multiplied

IRRIGATION DEMAND

The area under cultivation was assessed during the survey. The same was multiplied by the water requirement per acre for the main crop to estimate the water demand for crops. In case there is any marginal farming of other crops, the same has not been estimated.

INDUSTRY DEMAND

In most cases there was no industry in the villages, but where industry exists, the details were sought. While these details are provided in the chapter, it may not be possible to estimate demand accurately hence the same has not been done.

WAR for Water

For the norms per capita kindly refer page no. 35

Table 3.1 WATER DEMAND-HUMAN/LIVESTOCK/IRRIGATION

| Clusters | State | District | Population | Drinking water Demand (lpcd) | Other Usage (lpcd) | Total (lpcd) | Water demand for Livestock (lpcd) | Water Demand for Irrigation/An num (kl) |
|----------|----------------|----------------|------------|------------------------------|--------------------|--------------|-----------------------------------|---|
| CL01 | Andhra Pradesh | Nellore | 14750 | 44250 | 545750 | 590000 | 45285 | 373862 |
| CL02 | Andhra Pradesh | Nellore | 20000 | 60000 | 740000 | 800000 | 76430 | NA |
| CL03 | Punjab | Muktsar | 20000 | 60000 | 740000 | 800000 | 190015 | 22161943 |
| CL04 | Rajasthan | Nagaur | 12000 | 36000 | 444000 | 480000 | 137157 | 13284412 |
| CL05 | Rajasthan | Nagaur | 9000 | 27000 | 333000 | 360000 | 374050 | 2449468 |
| CL06 | Rajasthan | Sawai Madhopur | 10540 | 31620 | 389980 | 421600 | 864303 | 10707692 |
| CL07 | Rajasthan | Sawai Madhopur | 13000 | 39000 | 481000 | 520000 | 256992 | 12749878 |
| CL08 | Rajasthan | Churu | 9300 | 27900 | 344100 | 372000 | 235543 | 71382091 |
| CL09 | Tamil Nadu | Virudhunagar | 17990 | 53970 | 665630 | 719600 | 9769 | 4990869 |
| CL10 | West Bengal | Purulia | 12000 | 36000 | 444000 | 480000 | 779065 | 2890688 |
| CL11 | Madhya Pradesh | Raisen | 10600 | 31800 | 392200 | 424000 | 231066 | 11721457 |
| CL12 | Kerala | Ernakulum | 15385 | 46155 | 569245 | 615400 | 21350 | 6593351 |
| CL13 | Kerala | Alapuzha | 26000 | 78000 | 962000 | 1040000 | 3673 | 219692307 |
| CL14 | Assam | Kamrup | 12500 | 37500 | 462500 | 500000 | 47800 | 56453 |
| CL15 | Gujarat | Patan | 10458 | 31374 | 386946 | 418320 | 477687 | 24031983 |

WAR for Water

| Clusters | State | District | Population | Drinking water Demand (lpcd) | Other Usage (lpcd) | Total (lpcd) | Water demand for Livestock (lpcd) | Water Demand for Irrigation/An num (kl) |
|----------|----------------|--------------|------------|------------------------------|--------------------|--------------|-----------------------------------|---|
| CL16 | Gujarat | Mehsana | 12508 | 37524 | 462796 | 500320 | 255213 | 17821761 |
| CL17 | Madhya Pradesh | Seoni | 10297 | 30891 | 380989 | 411880 | 217689 | 7311740 |
| CL18 | Punjab | Muktsar | 11300 | 33900 | 418100 | 452000 | 348810 | 73554433 |
| CL19 | Punjab | Muktsar | 14873 | 44619 | 550301 | 594920 | 138272 | 50023643 |
| CL20 | Chhattisgarh | Jashpur | 11860 | 35580 | 438820 | 474400 | 633917 | 6336842 |
| CL21 | Manipur | Bishnupur | 31256 | 93768 | 1156472 | 1250240 | 192800 | 48160 |
| CL22 | Manipur | Imphal west | 40000 | 120000 | 1480000 | 1600000 | 1006900 | 9748987 |
| CL23 | Manipur | Thoubal | 28724 | 86172 | 1062788 | 1148960 | 365250 | 59500 |
| CL24 | Rajasthan | Sanganer | 12430 | 37290 | 459910 | 497200 | 343976 | 101562196 |
| CL25 | Rajasthan | Sanganer | 16000 | 48000 | 592000 | 640000 | 573670 | 2085886 |
| CL26 | Karnataka | Gulbarga | 10480 | 31440 | 387760 | 419200 | 258191 | 35425101 |
| CL27 | Assam | Jorhat | 25000 | 75000 | 925000 | 1000000 | 1232500 | 974898 |
| CL28 | Haryana | Mohindergarh | 11000 | 33000 | 407000 | 440000 | 240389 | 17016558 |
| CL29 | Maharashtra | Ratnagiri | 17526 | 52578 | 648462 | 701040 | 118618 | 42590451 |
| CL30 | UP | Jhansi | 14700 | 44100 | 543900 | 588000 | 263186 | 114238259 |
| CL31 | Nagaland | Wokha | 10170 | 30510 | 376290 | 406800 | 47571 | NA |
| CL32 | Tamil Nadu | Sivagangai | 23559 | 70677 | 871683 | 942360 | 2054751 | 5135481 |

WAR for Water

| Clusters | State | District | Population | Drinking water Demand (lpcd) | Other Usage (lpcd) | Total (lpcd) | Water demand for Livestock (lpcd) | Water Demand for Irrigation/An num (kl) |
|----------|-------------------|-----------------|------------|------------------------------|--------------------|--------------|-----------------------------------|---|
| CL33 | Tripura | North Tripura | 13150 | 39450 | 486550 | 526000 | 260637 | 10253441296 |
| CL34 | Kerala | Kasragod | 32687 | 98061 | 1209419 | 1307480 | 263729 | 679920226 |
| CL35 | Maharashtra | sangli | 19426 | 58278 | 718762 | 777040 | 496343 | 98811012 |
| CL36 | Arunachal Pradesh | Papumapara | 40000 | 120000 | 1480000 | 1600000 | 62200 | 6449392 |
| CL37 | Haryana | Jajjar | 40000 | 120000 | 1480000 | 1600000 | 2162522 | 120352226 |
| CL38 | Meghalya | Est. Khasi Hill | 10000 | 30000 | 370000 | 400000 | 42660 | 60728744 |
| CL39 | West Bengal | Darjeeling | 11080 | 33240 | 409960 | 443200 | 79503 | 986234817 |
| CL40 | Gujarat | Sabar Kantha | 12907 | 38721 | 477559 | 516280 | 264102 | 28102226 |
| CL41 | Gujarat | Sabar Kantha | 10000 | 30000 | 370000 | 400000 | 669930 | 9682024 |
| CL42 | Gujarat | Sabar Kantha | 12000 | 36000 | 444000 | 480000 | 245001 | 5587044 |
| CL43 | Punjab | Bhatinda | 12280 | 36840 | 454360 | 491200 | 479572 | 52180566 |
| CL44 | Andhra Pradesh | Srikikulam | 11113 | 33339 | 411181 | 444520 | 177575 | 3312169 |
| CL45 | Andhra Pradesh | Prakasam | 10717 | 32151 | 396529 | 428680 | 478748 | 22854889 |
| CL46 | Maharashtra | Thane | 22450 | 67350 | 830650 | 898000 | 158876 | 1341314227 |
| CL47 | West Bengal | 24 Paraganas | 12600 | 37800 | 466200 | 504000 | 217886 | 8093734 |
| CL48 | Rajasthan | jhunjhunu | 34091 | 102273.6 | 1261374 | 1363648 | 0 | NA |
| CL49 | Uttarakhand | Bageshwar | 7803 | 23409 | 288711 | 319923 | 14750 | 476000 |

WAR for Water

Table 3.2 WATER DEMAND - VILLAGE WISE

| Cluster s | State | District | Tehsil/Talu ka | Village | Population | Drinking water Demand (lpcd) | Other Usage (lpcd) | Total (lpcd) | Water demand for Livestock (lpcd) | Water Demand for Irrigation/ Annum (kl) |
|-----------|----------------|----------------|----------------|-----------------|------------|------------------------------|--------------------|--------------|-----------------------------------|---|
| CL1 | Andhra Pradesh | Nellore | Nellore | Bhujbhuj | 14750 | 44250 | 545750 | 590000 | 45285 | 373862 |
| CL2 | Andhra Pradesh | Nellore | Nellore | Kothur | 20000 | 60000 | 740000 | 800000 | 76430 | NA |
| CL3 | Punjab | Muktsar | Muktsar | Maan Singh Wala | 8000 | 24000 | 296000 | 320000 | 109270 | 18307692 |
| CL3 | Punjab | Muktsar | Muktsar | Bariwala | 12000 | 36000 | 444000 | 480000 | 80745 | 3854251 |
| CL4 | Rajasthan | Nagaur | Ladnun | Jaswantgarh | 12000 | 36000 | 444000 | 480000 | 137157 | 13284413 |
| CL5 | Rajasthan | Nagaur | Ladnun | Kasumbi | 9000 | 27000 | 333000 | 360000 | 374050 | 2449468 |
| CL6 | Rajasthan | Sawai Madhopur | Bamanvas | Dabar | 4040 | 12120 | 149480 | 161600 | 51142 | 4396508 |
| CL6 | Rajasthan | Sawai Madhopur | Bamanvas | Sitor | 5000 | 15000 | 185000 | 200000 | 757851 | 4025000 |
| CL6 | Rajasthan | Sawai Madhopur | Bamanvas | Sitapura | 1500 | 4500 | 55500 | 60000 | 55310 | 2286184 |
| CL7 | Rajasthan | Sawai Madhopur | Bamanvas | Piplai | 7000 | 21000 | 259000 | 280000 | 47595 | 8962550 |
| CL7 | Rajasthan | Sawai Madhopur | | Bamanbaroda | 6000 | 18000 | 222000 | 240000 | 209397 | 3787327 |
| CL8 | Rajasthan | Churu | Ratanhgarh | Bhudhawali | 2500 | 7500 | 92500 | 100000 | 66957 | 39631832 |
| CL8 | Rajasthan | Churu | Ratanhgarh | Meenasar | 3000 | 9000 | 111000 | 120000 | 57875 | 24908610 |
| CL8 | Rajasthan | Churu | Ratanhgarh | Seetsar | 2400 | 7200 | 88800 | 96000 | 76790 | 6841649 |

WAR for Water

| Cluster s | State | District | Tehsil/Talu ka | Village | Population | Drinking water Demand (lpcd) | Other Usage (lpcd) | Total (lpcd) | Water demand for Livestock (lpcd) | Water Demand for Irrigation/ Annum (kl) |
|-----------|----------------|--------------|----------------|-------------|------------|------------------------------|--------------------|--------------|-----------------------------------|---|
| CL8 | Rajasthan | Churu | Ratanhgarh | bheenchari | 1400 | 4200 | 51800 | 56000 | 33921 | |
| CL9 | Tamilnadu | Virudhunagar | Srivilliputhur | Mamsapuram | 17990 | 53970 | 665630 | 719600 | 9769 | 4990869 |
| CL10 | West Bengal | Purulia | Purulia | Ghangha | 8000 | 24000 | 296000 | 320000 | 351695 | 1541700 |
| CL10 | West Bengal | Purulia | Purulia 2 | Purda | 4000 | 12000 | 148000 | 160000 | 427370 | 1348987 |
| CL11 | Madhya Pradesh | Raisen | Raisen | Mangaon | 5500 | 16500 | 203500 | 220000 | 49924 | 8441295 |
| CL11 | Madhya Pradesh | Raisen | Raisen | Parvariya | 1300 | 3900 | 48100 | 52000 | 43357 | 1275303 |
| CL11 | Madhya Pradesh | Raisen | Raisen | Pagnesar | 2600 | 7800 | 96200 | 104000 | 83983 | 1012955 |
| CL11 | Madhya Pradesh | Raisen | Raisen | Girvar | 1200 | 3600 | 44400 | 48000 | 53801 | 991902 |
| CL12 | Kerala | Ernakulum | Kanaiyanur | Kadamakudy | 15385 | 46155 | 569245 | 615400 | 21350 | 6593351 |
| CL13 | Kerala | Alapuzha | Kuttanadu | Kainekeri | 26000 | 78000 | 962000 | 1040000 | 3673 | 219692308 |
| CL14 | Assam | Kamrup | Noonmati | Birkuch | 2500 | 7500 | 92500 | 100000 | 14400 | 7708 |
| CL14 | Assam | Kamrup | Chandarpur | Bonda | 10000 | 30000 | 370000 | 400000 | 33400 | 48744 |
| CL15 | Gujarat | Patan | Chanaswan | Brahmanwada | 4000 | 12000 | 148000 | 160000 | 353972 | 10902429 |
| CL15 | Gujarat | Patan | Chanaswan | Borsum | 3008 | 9024 | 111296 | 120320 | 66701 | 8271255 |
| CL15 | Gujarat | Patan | Chanaswan | Bhatsar | 3450 | 10350 | 127650 | 138000 | 57014 | 4858299 |
| CL16 | Gujarat | Mehsana | Visnagar | Paldi | 3008 | 9024 | 111296 | 120320 | 132577 | 4755971 |

WAR for Water

| Cluster s | State | District | Tehsil/Talu ka | Village | Population | Drinking water Demand (lpcd) | Other Usage (lpcd) | Total (lpcd) | Water demand for Livestock (lpcd) | Water Demand for Irrigation/ Annum (kl) |
|-----------|----------------|----------|----------------|----------------------|------------|------------------------------|--------------------|--------------|-----------------------------------|---|
| CL16 | Gujarat | Mehsana | Visnagar | Hasanpur | 3500 | 10500 | 129500 | 140000 | 25846 | 464574 |
| CL16 | Gujarat | Mehsana | Visnagar | Gunja | 6000 | 18000 | 222000 | 240000 | 96790 | 12601215 |
| CL17 | Madhya Pradesh | Seoni | Keolari | Bibhari | 1560 | 4680 | 57720 | 62400 | 40058 | 682429 |
| CL17 | Madhya Pradesh | Seoni | Keolari | Ghoorwada | 1237 | 3711 | 45769 | 49480 | 22572 | 2388502 |
| CL17 | Madhya Pradesh | Seoni | Keolari | Dutera | 1350 | 4050 | 49950 | 54000 | 32912 | 584939 |
| CL17 | Madhya Pradesh | Seoni | Keolari | Sarekha | 1800 | 5400 | 66600 | 72000 | 6944 | 487449 |
| CL17 | Madhya Pradesh | Seoni | Keolari | Sakri | 3200 | 9600 | 118400 | 128000 | 85098 | 2778461 |
| CL17 | Madhya Pradesh | Seoni | Keolari | Aarandia | 1150 | 3450 | 42550 | 46000 | 30105 | 389959 |
| CL18 | Punjab | Muktsar | Malot | Killian Wali Mandi | 5300 | 15900 | 196100 | 212000 | 72110 | 20710304 |
| CL18 | Punjab | Muktsar | Malot | Killian Wali Village | 6000 | 18000 | 222000 | 240000 | 276700 | 52844130 |
| CL19 | Punjab | Muktsar | Malot | Warning khera | 3200 | 9600 | 118400 | 128000 | 41292 | 3446356 |
| CL19 | Punjab | Muktsar | Malot | Channu | 7300 | 21900 | 270100 | 292000 | 9890 | 33493441 |
| CL19 | Punjab | Muktsar | Malot | Chak Medu Khera | 4373 | 13119 | 161801 | 174920 | 87090 | 13083846 |
| CL20 | Chhattisgarh | Jashpur | Jashpur | Gidha | 1470 | 4410 | 54390 | 58800 | 113814 | 584939 |
| CL20 | Chhattisgarh | Jashpur | Jashpur | Sonkyari | 1500 | 4500 | 55500 | 60000 | 27511 | 828664 |
| CL20 | Chhattisgarh | Jashpur | Jashpur | Andharjhar | 1340 | 4020 | 49580 | 53600 | 86562 | 584939 |

WAR for Water

| Cluster s | State | District | Tehsil/Talu ka | Village | Population | Drinking water Demand (lpcd) | Other Usage (lpcd) | Total (lpcd) | Water demand for Livestock (lpcd) | Water Demand for Irrigation/ Annum (kl) |
|-----------|--------------|-------------|----------------|------------------|------------|------------------------------|--------------------|--------------|-----------------------------------|---|
| CL20 | Chhattisgarh | Jashpur | Jashpur | Talasili | 1600 | 4800 | 59200 | 64000 | 55485 | 536194 |
| CL20 | Chhattisgarh | Jashpur | Jashpur | Aastha | 2100 | 6300 | 77700 | 84000 | 124851 | 1754817 |
| CL20 | Chhattisgarh | Jashpur | Jashpur | Manora | 2550 | 7650 | 94350 | 102000 | 146748 | 1316113 |
| CL20 | Chhattisgarh | Jashpur | Jashpur | Madhva | 1300 | 3900 | 48100 | 52000 | 78946 | 731174 |
| CL21 | Manipur | Bishnupur | Moirang | Moirang | 31256 | 93768 | 1156472 | 1250240 | 192800 | 48160 |
| CL22 | Manipur | Imphal west | Lamsang | Sekmai | 40000 | 120000 | 1480000 | 1600000 | 1006900 | 9748987 |
| CL23 | Manipur | Thoubal | Kakching | Kakching | 28724 | 86172 | 1062788 | 1148960 | 365250 | 59500 |
| CL24 | Rajasthan | Sanganer | Sanganer | Manpura Nagalai | 980 | 2940 | 36260 | 39200 | 14673 | 1858679 |
| CL24 | Rajasthan | Sanganer | Sanganer | Purushottam pura | 1500 | 4500 | 55500 | 60000 | 39812 | 85144500 |
| CL24 | Rajasthan | Sanganer | Sanganer | Suraj pura | 600 | 1800 | 22200 | 24000 | 27036 | NA |
| CL24 | Rajasthan | Sanganer | Sanganer | Dayalpura | 800 | 2400 | 29600 | 32000 | 35390 | 4664600 |
| CL24 | Rajasthan | Sanganer | Sanganer | Bhatawala | 600 | 1800 | 22200 | 24000 | 11776 | 288461 |
| CL24 | Rajasthan | Sanganer | Sanganer | Gavar jatan | 700 | 2100 | 25900 | 28000 | 60121 | NA |
| CL24 | Rajasthan | Sanganer | Sanganer | Shosinghpura | 1500 | 4500 | 55500 | 60000 | 47465 | 4601955 |
| CL24 | Rajasthan | Sanganer | Sanganer | Kalawala | 5000 | 15000 | 185000 | 200000 | 74806 | NA |
| CL24 | Rajasthan | Sanganer | Sanganer | Gavar Brahmana | 750 | 2250 | 27750 | 30000 | 32896 | 5004000 |

WAR for Water

| Cluster s | State | District | Tehsil/Talu ka | Village | Population | Drinking water Demand (lpcd) | Other Usage (lpcd) | Total (lpcd) | Water demand for Livestock (lpcd) | Water Demand for Irrigation/ Annum (kl) |
|-----------|-------------|---------------|----------------|--------------|------------|------------------------------|--------------------|--------------|-----------------------------------|---|
| CL25 | Rajasthan | Sanganer | Sanganer | Watika | 16000 | 48000 | 592000 | 640000 | 573670 | 2085886 |
| CL26 | Karnataka | Gulbarga | Yadgir | Yelhari | 10480 | 31440 | 387760 | 419200 | 258191 | 35425101 |
| CL27 | Assam | Jorhat | Titbor | Titbor | 25000 | 75000 | 925000 | 1000000 | 1232500 | 974898 |
| CL28 | Haryana | Mohindergar h | Mahenderga rh | Khudana | 9000 | 27000 | 333000 | 360000 | 216248 | 16196721 |
| CL28 | Haryana | Mohindergar h | Mahenderga rh | Garhi | 2000 | 6000 | 74000 | 80000 | 24141 | 819838 |
| CL29 | Maharashtra | Ratnagiri | Chiplun | Aakale | 1801 | 5403 | 66637 | 72040 | 54930 | 12025377 |
| CL29 | Maharashtra | Ratnagiri | Chiplun | Tivare | 1833 | 5499 | 67821 | 73320 | 14358 | 9661783 |
| CL29 | Maharashtra | Ratnagiri | Chiplun | Kddavad | 1395 | 4185 | 51615 | 55800 | 10378 | 13124575 |
| CL29 | Maharashtra | Ratnagiri | Chiplun | Dhamnavne | 1794 | 5382 | 66378 | 71760 | 11726 | 5536450 |
| CL29 | Maharashtra | Ratnagiri | Chiplun | Kherdi | 10703 | 32109 | 396011 | 428120 | 27225 | 2242267 |
| CL30 | UP | Jhansi | Jhansi | Raksa | 11200 | 33600 | 414400 | 448000 | 90210 | 72537854 |
| CL30 | UP | Jhansi | Jhansi | Ghisoli | 3500 | 10500 | 129500 | 140000 | 172976 | 41700405 |
| CL31 | Nagaland | Wokha | - | Lakhuti | 2270 | 6810 | 83990 | 90800 | 17913 | NA |
| CL31 | Nagaland | Wokha | | Yonchwcho | 1660 | 4980 | 61420 | 66400 | 12234 | NA |
| CL31 | Nagaland | Wokha | | Pangti | 6240 | 18720 | 230880 | 249600 | 17424 | NA |
| CL32 | Tamil Nadu | Sivagangai | Thiruppathur | Thiruppathur | 23559 | 70677 | 871683 | 942360 | 2054752 | 5135481 |

WAR for Water

| Cluster s | State | District | Tehsil/Talu ka | Village | Population | Drinking water Demand (lpcd) | Other Usage (lpcd) | Total (lpcd) | Water demand for Livestock (lpcd) | Water Demand for Irrigation/ Annum (kl) |
|-----------|-------------------|-----------------|----------------|------------------|------------|------------------------------|--------------------|--------------|-----------------------------------|---|
| CL33 | Tripura | North Tripura | Jampui hills | Lamgthireck | 2500 | 7500 | 92500 | 100000 | 6525 | 2055060729 |
| CL33 | Tripura | North Tripura | Jampui hills | Tuikrain Para | 1440 | 4320 | 53280 | 57600 | 34330 | 991902834 |
| CL33 | Tripura | North Tripura | Jampui hills | Chhinslkang | 2100 | 6300 | 77700 | 84000 | 87240 | 2202429150 |
| CL33 | Tripura | North Tripura | Jampui hills | Hmomplui | 2110 | 6330 | 78070 | 84400 | 9452 | 1684210526 |
| CL33 | Tripura | North Tripura | Jampui hills | Sabul | 1860 | 5580 | 68820 | 74400 | 53970 | 526315789 |
| CL33 | Tripura | North Tripura | Jampui hills | Tlanasana | 1040 | 3120 | 38480 | 41600 | 29860 | 759109312 |
| CL33 | Tripura | North Tripura | Jampui hills | Vanahmun | 2100 | 6300 | 77700 | 84000 | 39260 | 2034412955 |
| CL34 | Kerala | Kasragod | Kasragod | Delampady, Adour | 32687 | 98061 | 1209419 | 1307480 | 263729 | 679920227 |
| CL35 | Maharashtra | Sangli | Shirala | Natholi | 2455 | 7365 | 90835 | 98200 | 41528 | 15546559 |
| CL35 | Maharashtra | Sangli | Shirala | Kande | 4115 | 12345 | 152255 | 164600 | 50256 | 15066316 |
| CL35 | Maharashtra | Sangli | Shirala | Fakirvadi | 1490 | 4470 | 55130 | 59600 | 10615 | 19433198 |
| CL35 | Maharashtra | Sangli | Shirala | Mangle | 8246 | 24738 | 305102 | 329840 | 304700 | 38646437 |
| CL35 | Maharashtra | Sangli | Shirala | Chikhali | 3120 | 9360 | 115440 | 124800 | 89243 | 10118502 |
| CL36 | Arunachal Pradesh | Papumapara | Naharlagun | Naharlagun | 40000 | 120000 | 1480000 | 1600000 | 62200 | 6449392 |
| CL37 | Haryana | Jajjar | Beri | Dighal | 40000 | 120000 | 1480000 | 1600000 | 2162522 | 120352227 |
| CL38 | Meghalaya | Est. Khasi Hill | Shella Bhola | Cherapunji | 10000 | 30000 | 370000 | 400000 | 42660 | 60728745 |

WAR for Water

| Cluster s | State | District | Tehsil/Talu ka | Village | Population | Drinking water Demand (lpcd) | Other Usage (lpcd) | Total (lpcd) | Water demand for Livestock (lpcd) | Water Demand for Irrigation/ Annum (kl) |
|-----------|----------------|--------------|----------------|-----------------|------------|------------------------------|--------------------|--------------|-----------------------------------|---|
| CL39 | West Bengal | Darjeeling | Sukhiya Pokhri | Seyok | 2780 | 8340 | 102860 | 111200 | 24242 | 276923077 |
| CL39 | West Bengal | Darjeeling | Sukhiya Pokhri | Chamong | 2990 | 8970 | 110630 | 119600 | 21882 | 309716599 |
| CL39 | West Bengal | Darjeeling | Sukma Pokri | Molanty | 2660 | 7980 | 98420 | 106400 | 12166 | 183805668 |
| CL39 | West Bengal | Darjeeling | Sukhiya Pokhri | Gopal Dhara | 2650 | 7950 | 98050 | 106000 | 21212 | 215789474 |
| CL40 | Gujarat | Sabar Kantha | Meghraj | Mudshi | 2500 | 7500 | 92500 | 100000 | 17481 | 7449392 |
| CL40 | Gujarat | Sabar Kantha | Meghraj | Bodewada | 6665 | 19995 | 246605 | 266600 | 219401 | 9311741 |
| CL40 | Gujarat | Sabar Kantha | Meghraj | Ramgadi | 3742 | 11226 | 138454 | 149680 | 27220 | 11341093 |
| CL41 | Gujarat | Sabar Kantha | Malpur | Halodar | 6000 | 18000 | 222000 | 240000 | 427800 | 6434089 |
| CL41 | Gujarat | Sabar Kantha | Malpur | Ramboda | 4000 | 12000 | 148000 | 160000 | 242130 | 3247935 |
| CL42 | Gujarat | Sabar Kantha | Bhiloda | Mota Kanthariya | 7000 | 21000 | 259000 | 280000 | 193941 | 3724696 |
| CL42 | Gujarat | Sabar Kantha | Bhiloda | Ramara | 5000 | 15000 | 185000 | 200000 | 51060 | 1862348 |
| CL43 | Punjab | Bhatinda | Talwandi | Giaana | 3880 | 11640 | 143560 | 155200 | 176065 | 12809717 |
| CL43 | Punjab | Bhatinda | Talwandi | Malkanaa | 5000 | 15000 | 185000 | 200000 | 231056 | 26651822 |
| CL43 | Punjab | Bhatinda | Talwandi | Jajjal | 3400 | 10200 | 125800 | 136000 | 72451 | 12719028 |
| CL44 | Andhra Pradesh | Srikikulam | Sarubujjili | Kavity | 11113 | 33339 | 411181 | 444520 | 177575 | 3312169 |
| CL45 | Andhra Pradesh | Prakasam | Cheemakurthy | P. Naidupelm | 2792 | 8376 | 103304 | 111680 | 79210 | 5615384 |

WAR for Water

| Cluster s | State | District | Tehsil/Talu ka | Village | Population | Drinking water Demand (lpcd) | Other Usage (lpcd) | Total (lpcd) | Water demand for Livestock (lpcd) | Water Demand for Irrigation/ Annum (kl) |
|-----------|----------------|-------------|-------------------|--------------|------------|------------------------------|--------------------|--------------|-----------------------------------|---|
| CL45 | Andhra Pradesh | Prakasam | Podili | Mailavaram | 400 | 1200 | 14800 | 16000 | 5466 | 1026510 |
| CL45 | Andhra Pradesh | Prakasam | Santhanuthl apadu | K V Palem | 2500 | 7500 | 92500 | 100000 | 17381 | 2566276 |
| CL45 | Andhra Pradesh | Prakasam | Cheemakurt hy | Yeragudipadu | 1000 | 3000 | 37000 | 40000 | 118435 | 2566276 |
| CL45 | Andhra Pradesh | Prakasam | Cheemakurt hy | Chemillemuri | 1475 | 4425 | 54575 | 59000 | 148385 | 6415692 |
| CL45 | Andhra Pradesh | Prakasam | Veligandla | Reddy Nagar | 350 | 1050 | 12950 | 14000 | 27306 | 558704 |
| CL45 | Andhra Pradesh | Prakasam | Cheemakurt hy | Pullikonda | 2200 | 6600 | 81400 | 88000 | 82565 | 4106043 |
| CL46 | Maharashtra | Thane | Palghar | Kelwa | 7534 | 22602 | 278758 | 301360 | 32400 | 7633983 |
| CL46 | Maharashtra | Thane | Palghar | Mahim | 14916 | 44748 | 551892 | 596640 | 126476 | 1333680243 |
| CL47 | West Bengal | 24 Praganas | Goshaba | Biraj Nagar | 5900 | 17700 | 218300 | 236000 | 41726 | 3808000 |
| CL47 | West Bengal | 24 Praganas | Goshaba | Bijoy Nagar | 6700 | 20100 | 247900 | 268000 | 176160 | 4285734 |
| CL48 | Rajasthan | Jhunjhunu | Jhunjhunu | Pilani city | 34091 | 102274 | 1261374 | 1363648 | | NA |
| CL49 | Uttarakhand | Bageshwar | Bageshwar | Bageshwar | 7803 | 23409 | 288711 | 319923 | 14750 | 476000 |

WAR for Water

Table 3.3 WATER DEMAND-INDUSTRY

| Cluster | State | District | Tehsil/Taluka | Village | No of units | Type of Industry & Capacity | Resources |
|---------|-------------------|-----------------|----------------|--------------------|-------------|--|--|
| CL3 | Punjab | Muktsar | Muktsar | Bariwala | 24 | Cotton (1500 bales per day), Rice (500 tonnes per season), Plastic Bag (2000 pouches per hour) ,Cattle feed (10 TPH) | Tube well |
| CL4 | Rajasthan | Nagaur | Ladnun | Jaswantgarh | 10 | Stone cutting (952 tonnes p.a) | Pvt. Tanks |
| CL9 | Tamil Nadu | Virudhunagar | Srivilliputhur | Mamsapuram | 15 | Textiles (64302 spindles per annum),Power looms (4 lakh looms p.a),Matches (1.2 Million Matches per hour) | Bore well |
| CL14 | Assam | Kamrup | Noonmati | Birkuch | 1 | Oil (1.00 MMTPA) | Pumps and pipes supply water from Brahmaputra directly to the refinery |
| CL16 | Gujarat | Mehsana | Visnagar | Gunja | 3 | Sunmica (200 kg per day), Cement (4 lakh tonnes p.a), Jin (250 TPA) | Bore well |
| CL18 | Punjab | Muktsar | Malot | Killian Wali Mandi | 2 | Brick factory (15,000 bricks per day) | Private Tubewell |
| CL22 | Manipur | Imphal west | Lamsang | Sekmai | 1 | Gas Bottling (132 TMTPA) | PHED supplies water from Sekmai River |
| CL23 | Manipur | Thoubal | Kakchang | Kakchang | 1 | Septic tank (25 per day) | Sekmai River |
| CL29 | Maharashtra | Ratnagiri | Chiplun | Kherdi | 40 | Plastic drums (3000 TPA),paper (35 tonnes per day) ,cable (1500 metres per day) | Kajna dam |
| CL35 | Maharashtra | sangli | Shirala | Chikhali | 2 | Sugar(5500 tcd daily; 806327 ton/yr) | Wanna River |
| CL36 | Arunachal Pradesh | Papumapara | Naharlagun | Naharlagun | 2 | Iron (8 tonne per day) | Government Supply as well as from natural resources |
| CL38 | Meghalaya | Est. Khasi Hill | Shella Bhola | Cherapunji | 1 | Cement Factory (300 tpd) | Rainwater |
| CL39 | West Bangal | Darjaling | Sukhiya Pokhri | Seyok | 1 | Tea (245-260 tonnes p.a) | Spring |
| CL39 | West Bangal | Darjaling | Sukma Pokri | Molanty | 1 | Tea (250 tonnes p.a) | Spring |
| CL43 | Punjab | Bhatinda | Talwandi | Giaana | 4 | Brick factory (25,000 bricks per day) | Own Private Tube wells |

WAR for Water

| | | | | | | | |
|-------------|----------------|------------|-------------|-----------|-----|--|---|
| CL43 | Punjab | Bhatinda | Talwandi | Malkanaa | 3 | Brick factory (29,000 bricks per day) | Tube Wells |
| CL44 | Andhra Pradesh | Srikikulam | Sarubujjili | Kavity | 1 | Taking Fiber from Coconut | Water from bore wells in the village |
| CL46 | Maharashtra | Thane | Palghar | Mahim | 223 | Small scale | Private bore wells. It's hard water. They make process on it and then they use it |
| CL49 | Uttarakhand | Bageshwar | Bageshwar | Bageshwar | 32 | Bakery,Automobiles,Iron work | Pvt. Connections,Standpost |

WAR for Water

Assumptions and sources used for water demand

The calculations and analysis of the data was interpreted taking in assumptions of many factors. These assumptions were obtained from multiple but reliable sources.

NORMS FOR PROVIDING POTABLE DRINKING WATER IN RURAL AREAS (Jointly estimated by WHO & BIS)

While implementing the Rural Water Supply Schemes, the following norms are adopted for providing potable drinking water to the population:

40 litres per capita per day (lpcd) for humans to meet the following requirements.

| Purpose | Quantity (LPCD) |
|--------------------------|-----------------|
| Drinking | 3 |
| Cooking | 5 |
| Bathing | 15 |
| Washing utensils & house | 7 |
| Ablution | 10 |

With normal output of 12 litres per minute, one hand pump or stand post is estimated for every 250 persons. A rural habitation not having any safe water source with a permanently settled population of 20 households or 100 persons, whichever is more, is taken as the unit for coverage with funds under the ARWSP. However, the State Government could cover any habitation regardless of its size/population/number of households with funds under State Plan.

WAR for Water

FACTORS AFFECTING WATER UTILIZATION IN CROP PRODUCTION (Source: Water requirements of different crops and animals by Ghulam Mohyuddin Wani, Chief Consultant, Animal Husbandry, NRAA, NEW DELHI)

Water requirements of a crop are determined by various factors like soil moisture, texture, wind velocity, humidity, rainfall, temperature solar radiation, crop species, variety of as crop, cropping season, & other known and unknown factors both biotic and a biotic.

The water requirements are measured by various methods. We have to consider soil profile, soil moisture stored in the root zone of the planted crop, evaporation rate, humidity, temperature & all those factors described in preceding pages. On an estimated basis different crops need water at following rates (Johl, 2002)

| Crop | Water required in litres/ hec |
|---------------------|--------------------------------------|
| Rice | 60,20,000 |
| Wheat | 35,00,000 |
| Cotton | 78,50,000 |
| Sugar cane | 1,60,00,000 |
| Sunflower | 65,00,000 |
| Kharif Maize | 46,00,000 |
| Kharif Moong | 41,50,000 |
| Gobi Sarsoon | 34,50,000 |
| Winter Maize | 61,50,000 |

WAR for Water

Live Stock water Consumption

| Live Stock | Water intake/day/litre | Other Usage |
|---------------------------|------------------------|-------------|
| Cattle (Cow/ Buffalo etc) | 60 | 40 |
| Camel | 60.2 | 50 |
| Dog | 0.3 | 25 |
| Goat | 4 | 10 |
| Horse/ Donkey | 45 | 25 |
| Elephant | 200 | 100 |
| Sheep | 20 | 20 |
| Pig | 20 | 20 |

Sources: <http://www.agritech.tnau.ac.in> , www.aquaa.persistent.co.in, <http://www.dogster.com>

Chapter 4 – Water Resources

Water resources are made up from:

1. Natural resources like rivers/ ponds/ lakes
2. Man made resources like canals/wells/hand pumps/ etc

The survey captured data on the type of resources, the quantum and the seasonality contexts of the natural resources. Though it was attempted, no reliable estimates could be drawn from the survey on the quantum of supply. It would have been desired to have a supply quantum as well as the Demand Supply context could have been drawn up more objectively. But the nature and multiplicity of water resources does not lend itself to a fair or objective assessment of a supply quantum.

Of course the pilot project proposed to be set up would need a water resource which is mapped.

Again considering that the pilot project would be set up in any 1 village only out of a cluster of villages, the water resources have been shared for each cluster in table 4.1 and for each village in table 4.2. As mentioned in the previous chapters, the objective of the survey is to provide decision support data to finalise 10 sites, the survey has gone into the plethora of factors enabling that decision to be made. Any further inputs required would necessitate focussed research in the selected cluster with its unique objective.

WAR for Water

Table 4.1- WATER RESOURCES PER CLUSTER

| Clusters | State | District | River | Canal | Pond | Lake | Others | Wells | Hand Pumps Public Use | Hand Pumps Pvt. Use | Electric pumps Public Use | Electric pumps Pvt. Use | Stand posts |
|----------|----------------|----------------|--------|-------|---------------|--------------|--------|---------------------------|-----------------------|----------------------------|---------------------------|-------------------------|-------------|
| CL1 | Andhra Pradesh | Nellore | | | | 1, Permanent | | 150 | 6 | 100 | 6 | 150 | 100 |
| CL2 | Andhra Pradesh | Nellore | | | | | | 200 | 30 | | 9 | 350 | 300 |
| CL3 | Punjab | Muktsar | | | | | | | 100 | 500 | | 1200 | |
| CL4 | Rajasthan | Nagaur | | | | | | 1 | | | | | |
| CL5 | Rajasthan | Nagaur | | | 12, seasonal | | | 42, all working | | 3 (2 closed and 1 working) | | | |
| CL6 | Rajasthan | Sawai Madhopur | | | 1, seasonal | | | 954 | 38 | | 250 | | |
| CL7 | Rajasthan | Sawai madhopur | 1, dry | | 1, seasonal | | | 1200, not much water left | 45 (20 dry) | 1 | | 1 | |
| CL8 | Rajasthan | Churu | | | 195, seasonal | | | 12 | 18 | 5 | 4 | 3 | |
| CL9 | Tamil Nadu | Virudhunagar | | | 4, seasonal | | | 12 | 99 | 40 | 70 | 20 | 320 |

WAR for Water

| Clusters | State | District | River | Canal | Pond | Lake | Others | Wells | Hand Pumps Public Use | Hand Pumps Pvt. Use | Electric pumps Public Use | Electric pumps Pvt. Use | Stand posts |
|----------|----------------|-----------|---------------------------|---------------|-----------------|---------------------------|--------|-------|-----------------------|---------------------|---------------------------|-------------------------|-------------|
| CL10 | West Bangal | Purulia | | | 25, Both | | | 30 | 7 | 5 | | | |
| CL11 | Madhya Pardesh | Raisen | 1, seasonal, 3 Permanent | | 1, Permanent | | | 57 | 26 | 20 | 1 | 240 | |
| CL12 | Kerela | Ernakulam | 1, Permanent | 1, Permanent | 9, Permanent | | | 150 | 190 | 510 | | | 250 |
| CL13 | Kerela | Alapuzha | 1, Permanent | 25, Permanent | 2150, Permanent | 3, Permanent | | 7 | | | | | |
| CL14 | Assam | Kamrup | | | | | | | 11 | | 6 | | |
| CL15 | Gujarat | Patan | | 3, Permanent | 1, seasonal | 3, Permanent, 2, seasonal | | 55 | | | 12 | 68 | 16 |
| CL16 | Gujarat | Mehsana | 1, Seasonal | 4, Permanent | 1, seasonal | 3, seasonal | | 290 | | | 6 | 42 | 296 |
| CL17 | Madhya Pardesh | Seoni | 4, Permanent, 1, seasonal | | 12, Permanent | | | 128 | 66 | | 3 | | 133 |

WAR for Water

| Clusters | State | District | River | Canal | Pond | Lake | Others | Wells | Hand Pumps Public Use | Hand Pumps Pvt. Use | Electric pumps Public Use | Electric pumps Pvt. Use | Stand posts |
|----------|-------------|-------------|-----------------|-----------------|---|-----------------|--------|-------------------|-----------------------|---------------------|---------------------------|-------------------------|-------------|
| CL18 | Punjab | Muktsar | | | 4, Permanent | | | 300 | 120 | 1900 | | 50 | |
| CL19 | Punjab | Muktsar | 4, Permanent | 3, Permanent | 5, Permanent,3, seasonal | | | 1 | 900 | 182 | 50 | | 04 |
| CL20 | Chhatisgarh | Jashpur | 1, Permanent | 4, Permanent | 17, Permanent | | | 66 | 215 | | | | 09 |
| CL21 | Manipur | Bishnupur | 1, seasonal | | 250, seasonal | 1, Permanent | | | | | | | |
| CL22 | Manipur | Imphal west | 3, Permanent | 2, Permanent | | | | 6000 | | | | | |
| CL23 | Manipur | Thoubal | 1, Permanent | 2, Permanent | 250, Both | | | | 4 | 1000 | | | 04 |
| CL24 | Rajasthan | Sanganer | | | 7, seasonal ,1, waste water | | | 220,21 working | 77 | 15 | | 25 | |
| CL25 | Rajasthan | Sanganer | | | 8, seasonal | | | | 100 | | | 800 | |

WAR for Water

| Clusters | State | District | River | Canal | Pond | Lake | Others | Wells | Hand Pumps Public Use | Hand Pumps Pvt. Use | Electric pumps Public Use | Electric pumps Pvt. Use | Stand posts |
|----------|-------------|---------------|---------------------------|---------------|---------------------------|---------------|-------------------------|----------|-----------------------|---------------------|---------------------------|-------------------------|-------------|
| CL26 | Karnataka | Gulbarga | | | | | | 20 | 25 | | 9 | 150 | 200 |
| CL27 | Assam | Jorhat | 1, Permanent | | 40, Both | | | | 45 | 2120 | 520 | | 45 |
| CL28 | Haryana | Mohindergharh | | | 2, seasonal | | | 17,2-Dry | 10 | 2 | 100 | | |
| CL29 | Maharashtra | Ratnagiri | 3, seasonal, 1-Permanent | | 1, Permanent | | 15 water fall, seasonal | 36 | 10 | 1 | 9 | 110 | 32 |
| CL30 | UP | Jhansi | 1, Permanent, 1, seasonal | 1, Permanent | 1, Permanent, 1, seasonal | | | 325 | 90 | 15 | | | |
| CL31 | Nagaland | Wokha | | | 2, seasonal | | | | | | | | |
| CL32 | Tamil Nadu | Sivagangai | 1, seasonal | 1, Seasonal | 11, seasonal | 1, seasonal | | 20 | 93 | 10 | 133 | 150 | 74 |
| CL33 | Tripura | North Tripura | | | 2, Permanent | 37, Permanent | | | | | | 52 | |
| CL34 | Kerala | Kasragod | 1, Permanent | 37, Permanent | 1000, Permanent | | | | 45 | 130 | | 380 | |

WAR for Water

| Clusters | State | District | River | Canal | Pond | Lake | Others | Wells | Hand Pumps Public Use | Hand Pumps Pvt. Use | Electric pumps Public Use | Electric pumps Pvt. Use | Stand posts |
|----------|-------------------|-----------------|--------------|--------------|---------------------------|--------------------------|--------------|-------|-----------------------|---------------------|---------------------------|-------------------------|-------------|
| CL35 | Maharashtra | sangli | 4, Permanent | | 2, Permanent, 15-seasonal | 4, Permanent, 7-seasonal | | 270 | 67 | | 11 | 183 | 47 |
| CL36 | Arunachal Pradesh | Papumapara | | | 3, Permanent | | | 5 | | | | | |
| CL37 | Haryana | Jajjar | | 2, Permanent | 13, Permanent | | | 200 | | | | | |
| CL38 | Meghalaya | Est. Khasi Hill | | | 3 | | | | | | | | |
| CL39 | West Bengal | Darjaling | | | | | 6, Permanent | | | | | | |
| CL40 | Gujarat | Sabar Kantha | | | 1, seasonal | 1, seasonal | | 420 | 192 | | 7 | 1053 | 15 |
| CL41 | Gujarat | Sabar Kantha | 2, seasonal | | 5, seasonal | 2, Permanent | | 250 | 100 | | | 100 | |
| CL42 | Gujarat | Sabar Kantha | | | | 2, seasonal | | 140 | 85 | | 20 | 30 | |
| CL43 | Punjab | Bhatinda | 1, Permanent | | 8, Permanent | | 8, Permanent | | 5 | 800 | | 300 | 30 |

WAR for Water

| Clusters | State | District | River | Canal | Pond | Lake | Others | Wells | Hand Pumps Public Use | Hand Pumps Pvt. Use | Electric pumps Public Use | Electric pumps Pvt. Use | Stand posts |
|----------|----------------|--------------|--------------|--------------|------------|---------------|---------|-------|-----------------------|---------------------|---------------------------|-------------------------|-------------|
| CL44 | Andhra Pradesh | Srikikulam | | | | | | 5 | 51 | 50 | 4 | 1300 | 320 |
| CL45 | Andhra Pradesh | Prakasam | | | | 5, Permanent | | 43 | 129 | 104 | 1548 | 1730 | |
| CL46 | Maharashtra | Thane | | | | 22, Permanent | | 557 | 40 | 35 | 2 | 164 | 131 |
| CL47 | West Bengal | 24 Paraganas | 4, Permanent | 6, Permanent | 4000, Both | | | | 25 | | | | |
| CL48 | Rajasthan | jhunjhunu | | | | | | 2 | | | | | |
| CL49 | Uttarakhand | Bageshwar | 2, Permanent | | | | 1,naula | | 10 | | | | 10 |

WAR for Water

Table 4.2- WATER RESOURCES PER VILLAGE

| Cluster s | State | District | Tehsil/Taluka | Village | River | Canal | Pond | Lake | Other s | Wells | Hand Pumps Public Use | Hand Pumps Pvt. Use | Electric pumps Public Use | Electric pumps Pvt. Use | Stand posts |
|-----------|----------------|----------------|---------------|-----------------|--------|-------|------|--------------|---------|---------------------------|-----------------------|----------------------------|---------------------------|-------------------------|-------------|
| CL1 | Andhra Pradesh | Nellore | Nellore | Bhujbhuj | | | | 1, Permanent | | 150 | 6 | 100 | 6 | 150 | 100 |
| CL2 | Andhra Pradesh | Nellore | Nellore | Kothur | | | | | | 200 | 30 | | 9 | 350 | 300 |
| CL3 | Punjab | Muktsar | Muktsar | Maan Singh Wala | | | | | | | | 500 | | 1200 | |
| CL3 | Punjab | Muktsar | Muktsar | Bariwala | | | | | | | 100 | | | | |
| CL4 | Rajasthan | Nagaur | Ladnun | Jaswantgarh | | | | | | 1 | | | | | |
| CL5 | Rajasthan | Nagaur | Ladnun | Kasumbi | | | | 12, seasonal | | 42, | | 3 (2 closed and 1 working) | | | |
| CL6 | Rajasthan | Sawai Madhopur | Bamanvas | Dabar | | | | | | 150 | 20 | | 250 | | |
| CL6 | Rajasthan | Sawai Madhopur | Bamanvas | Sitor | | | | | | 800 | 15 | | | | |
| CL6 | Rajasthan | Sawai Madhopur | Bamanvas | Sitapura | | | | 1, seasonal | | 4 | 3 | | | | |
| CL7 | Rajasthan | Sawai Madhopur | Bamanvas | Piplai | 1, dry | | | 1, seasonal | | 1000, not much water left | 15 | | | | |

WAR for Water

| Cluster s | State | District | Tehsil/Taluka | Village | River | Canal | Pond | Lake | Other s | Wells | Hand Pumps Public Use | Hand Pumps Pvt. Use | Electric pumps Public Use | Electric pumps Pvt. Use | Stand posts |
|-----------|----------------|----------------|----------------|-------------|-------|-------|---------------|------|---------|--------------|-----------------------|---------------------|---------------------------|-------------------------|-------------|
| CL7 | Rajasthan | Sawai Madhoper | | Bamanbaroda | | | 1, seasonal | | | 200, all dry | 30 (20 out of 30 dry) | 1 | | 1 | |
| CL8 | Rajasthan | Churu | Ratangharh | Bhudhawali | | | 3, seasonal | | | 4 | 1 | | 1 | 3 | |
| CL8 | Rajasthan | Churu | Ratangharh | Meenasar | | | 2, seasonal | | | 2 | 4 | | 1 | | |
| CL8 | Rajasthan | Churu | Ratangharh | Seetsar | | | 150, seasonal | | | 2 | 2 | | | | |
| CL8 | Rajasthan | Churu | Ratangharh | bheenchari | | | 40, seasonal | | | 4 | 11 | 5 | 2 | | |
| CL9 | Tamil Nadu | Virudhunagar | Srivilliputhur | Mamsapuram | | | 4, seasonal | | | 12 | 99 | 40 | 70 | 20 | 320 |
| CL10 | West Bengal | Purulia | Purulia | Ghangha | | | 15, Both | | | 22 | 4 | 5 | | | |
| CL10 | West Bengal | Purulia | Purulia 2 | Purda | | | 10, Both | | | 8 | 3 | | | | |
| CL11 | Madhya Pradesh | Raisen | Raisen | Mangaon | | | 1, seasonal | | | 50 | 12 | 20 | 1 | 100 | |
| CL11 | Madhya Pradesh | Raisen | Raisen | Parvariya | | | 1, Permanent | | | 2 | 5 | | | 80 | |
| CL11 | Madhya Pradesh | Raisen | Raisen | Pagnesar | | | 1, Permanent | | | 2 | 5 | | | 10 | |
| CL11 | Madhya Pradesh | Raisen | Raisen | Girvar | | | 1, Permanent | | | 3 | 4 | | | 50 | |

WAR for Water

| Cluster s | State | District | Tehsil/Taluka | Village | River | Canal | Pond | Lake | Other s | Wells | Hand Pumps Public Use | Hand Pumps Pvt. Use | Electric pumps Public Use | Electric pumps Pvt. Use | Stand posts |
|-----------|----------------|-----------|---------------|-------------|--------------|---------------|-----------------|--------------|---------|-------|-----------------------|---------------------|---------------------------|-------------------------|-------------|
| | | | | | Permanent | | | | | | | | | | |
| CL12 | Kerala | Ernakulam | Kanaiyanur | Kadamakudy | 1, Permanent | 1, Permanent | 9, Permanent | | | 150 | 190 | 510 | | | 250 |
| CL13 | Kerala | Alapuzha | Kuttanadu | Kainekeri | 1, Permanent | 25, Permanent | 2150, Permanent | 3, Permanent | | 7 | | | | | |
| CL14 | Assam | Kamrup | Noonmati | Birkuch | | | | | | | 5 | | 4 | | |
| CL14 | Assam | Kamrup | Chandarapur | Bonda | | | | | | | 6 | | 2 | | |
| CL15 | Gujarat | Patan | Chanaswan | Brahmanwada | | 1, Permanent | | 1, Permanent | | 50 | | | 10 | 50 | 10 |
| CL15 | Gujarat | Patan | Chanaswan | Borsum | | 1, Permanent | | 2, Permanent | | | | | 1 | 18 | |
| CL15 | Gujarat | Patan | Chanaswan | Bhatsar | | 1, Permanent | 1, seasonal | 2, seasonal | | 5 | | | 1 | | 6 |
| CL16 | Gujarat | Mehsana | Visnagar | Paldi | | 1, Permanent | 1, seasonal | 1, seasonal | | 10 | | | 1 | 17 | 11 |
| CL16 | Gujarat | Mehsana | Visnagar | Hasanpur | 1, Seasonal | 1, Permanent | | 1, seasonal | | 30 | | | 5 | 15 | 35 |
| CL16 | Gujarat | Mehsana | Visnagar | Gunja | | 2, Permanent | | 1, seasonal | | 250 | | | | 10 | 250 |
| CL17 | Madhya Pradesh | Seoni | Keolari | Bibhari | | | | 1, Permanent | | 30 | 8 | | 1 | | |
| CL17 | Madhya Pradesh | Seoni | Keolari | Ghoorwada | 1, Permanent | | | | | 20 | 12 | | | | |

WAR for Water

| Cluster s | State | District | Tehsil/Taluka | Village | River | Canal | Pond | Lake | Other s | Wells | Hand Pumps Public Use | Hand Pumps Pvt. Use | Electric pumps Public Use | Electric pumps Pvt. Use | Stand posts |
|-----------|----------------|----------|---------------|----------------------|--------------|--------------|--------------|------|---------|-------|-----------------------|---------------------|---------------------------|-------------------------|-------------------------|
| CL17 | Madhya Pradesh | Seoni | Keolari | Dutera | | | 3, Permanent | | | 30 | 16 | | 1 | | 29 |
| CL17 | Madhya Pradesh | Seoni | Keolari | Sarekha | 2, Permanent | | 6, Permanent | | | 20 | 11 | | | | 40 |
| CL17 | Madhya Pradesh | Seoni | Keolari | Sakri | 1, Permanent | | 2, Permanent | | | 25 | 10 | | 1 | | 34 |
| CL17 | Madhya Pradesh | Seoni | Keolari | Aarandia | 1, seasonal | | | | | 3 | 9 | | | | 30 |
| CL18 | Punjab | Muktsar | Malot | Killian Wali Mandi | | | 2, Permanent | | | 300 | 100 | 400 | | 50 | |
| CL18 | Punjab | Muktsar | Malot | Killian Wali Village | | | 2, Permanent | | | | 20 | 1500 | | | |
| CL19 | Punjab | Muktsar | Malot | Warning khera | 2, Permanent | | 3, Permanent | | | | 50 | 170 | | | 4 |
| CL19 | Punjab | Muktsar | Malot | Channu | 1, Permanent | 2, Permanent | 3, seasonal | | | | 50 | | 50 | | |
| CL19 | Punjab | Muktsar | Malot | Chak Medu Khera | 1, Permanent | 1, Permanent | 2, Permanent | | | 1 | 800 | 12 | | | |
| CL20 | Chhattisgarh | Jashpur | Jashpur | Gidha | | 2, Permanent | | | | 15 | 38 | | | | |
| CL20 | Chhattisgarh | Jashpur | Jashpur | Sonkyari | | 1, Permanent | 5, Permanent | | | 22 | 35 | | | | PWSS under construction |

WAR for Water

| Cluster s | State | District | Tehsil/Taluka | Village | River | Canal | Pond | Lake | Other s | Wells | Hand Pumps Public Use | Hand Pumps Pvt. Use | Electric pumps Public Use | Electric pumps Pvt. Use | Stand posts |
|-----------|--------------|-------------|---------------|-----------------|--------------|--------------|----------------|--------------|---------|---------------|-----------------------|---------------------|---------------------------|-------------------------|-------------|
| CL20 | Chhattisgarh | Jashpur | Jashpur | Andharjhar | | 1, Permanent | | | | 4 | 19 | | | | |
| CL20 | Chhattisgarh | Jashpur | Jashpur | Talasili | | | 3, Permanent | | | 5 | 29 | | | | |
| CL20 | Chhattisgarh | Jashpur | Jashpur | Aastha | | | 3, Permanent | | | 4 | 29 | | | | |
| CL20 | Chhattisgarh | Jashpur | Jashpur | Manora | 1, Permanent | | 4, Permanent | | | 10 | 46 | | | | 9 |
| CL20 | Chhattisgarh | Jashpur | Jashpur | Madhva | | | 2, Permanent | | | 6 | 19 | | | | |
| CL21 | Manipur | Bishnupur | Moirang | - | 1, seasonal | | 250, seasonal | 1, Permanent | | | | | | | |
| CL22 | Manipur | Imphal west | Lamsang | Sekmai | 3, Permanent | 2, Permanent | | | | 6000 | | | | | |
| CL23 | Manipur | Thoubal | Kakching | - | 1, Permanent | 2, Permanent | 250, Both | | | | 4 | 1000 | | | 4 |
| CL24 | Rajasthan | Sanganer | Sanganer | Manpura Nagalai | | | 2, seasonal | | | 6, closed | 1 | | | | |
| CL24 | Rajasthan | Sanganer | Sanganer | Purushottampura | | | 1, Waste water | | | 20, 1 working | 15 | 7 | | | |
| CL24 | Rajasthan | Sanganer | Sanganer | Suraj pura | | | | | | 10, all dry | 10 | 2 | | 2 | |
| CL24 | Rajasthan | Sanganer | Sanganer | Dayalpura | | | 1, seasonal | | | 20, all dry | 2 | | | 2 | |

WAR for Water

| Cluster s | State | District | Tehsil/Taluka | Village | River | Canal | Pond | Lake | Other s | Wells | Hand Pumps Public Use | Hand Pumps Pvt. Use | Electric pumps Public Use | Electric pumps Pvt. Use | Stand posts |
|-----------|-------------|---------------|---------------|----------------|--------------|-------|-------------|------|-----------------------|-------------|-----------------------|---------------------|---------------------------|-------------------------|-------------|
| CL24 | Rajasthan | Sanganer | Sanganer | Bhatawala | | | 1, seasonal | | | 50, all dry | 4 (2 dry) | | | 6 | |
| CL24 | Rajasthan | Sanganer | Sanganer | Gavarjatan | | | | | | 10 | 5 | 3 | | 10 | |
| CL24 | Rajasthan | Sanganer | Sanganer | Shosinghpura | | | | | | 100, dry | 10 | | | | |
| CL24 | Rajasthan | Sanganer | Sanganer | Kalawala | | | 1, seasonal | | | | 20 | | | | |
| CL24 | Rajasthan | Sanganer | Sanganer | Gavar Brahmana | | | 2, seasonal | | | 10 | 10 | 3 | | 5 | |
| CL25 | Rajasthan | Sanganer | Sanganer | Watika | | | 8, seasonal | | | | 100 | | | 800 | |
| CL26 | Karnataka | Gulbarga | Yadgir | Yelhari | | | | | | 20 | 25 | | 9 | 150 | 200 |
| CL27 | Assam | Jorhat | Titbor | - | 1, Permanent | | 40, Both | | | | 45 | 2120 | 520 | | 45 |
| CL28 | Haryana | Mohinder garh | Mahender garh | Khudana | | | | | | 15 | 8 | | 100 | | |
| CL28 | Haryana | Mohinder garh | Mahender garh | Garhi | | | 2, seasonal | | | 2, Dry | 2 | 2 | | | |
| CL29 | Maharashtra | Ratnagiri | Chiplun | Aakale | 1, seasonal | | | | | 24 | 1 | | 2 | 4 | |
| CL29 | Maharashtra | Ratnagiri | Chiplun | Tivare | 1, seasonal | | | | | 4 | 2 | 1 | 2 | 6 | |
| CL29 | Maharashtra | Ratnagiri | Chiplun | Kddavad | 1, seasonal | | | | 15 water fall, season | 6 | | | | | |

WAR for Water

| Cluster s | State | District | Tehsil/Taluka | Village | River | Canal | Pond | Lake | Other s | Wells | Hand Pumps Public Use | Hand Pumps Pvt. Use | Electric pumps Public Use | Electric pumps Pvt. Use | Stand posts |
|-----------|-------------|---------------|---------------|--------------|--------------|--------------|--------------|--------------|---------|-------|-----------------------|---------------------|---------------------------|-------------------------|---------------------------|
| | | | | | | | | | al | | | | | | |
| CL29 | Maharashtra | Ratnagiri | Chiplun | Dhamnavne | | | 1, Permanent | | | | 2 | | | | 7 |
| CL29 | Maharashtra | Ratnagiri | Chiplun | Kherdi | 1, Permanent | | | | | 2 | 5 | | 5 | 100 | 25 |
| CL30 | UP | Jhansi | Jhansi | Raksa | 1, Permanent | 1, Permanent | 1, Permanent | | | 5 | 60 | 5 | | | No water in it |
| CL30 | UP | Jhansi | Jhansi | Ghisoli | 1, seasonal | | 1, seasonal | | | 320 | 30 | 10 | | | 6, but no water available |
| CL31 | Nagaland | Wokha | - | Lakhuti | | | 1, seasonal | | | | | | | | |
| CL31 | Nagaland | Wokha | | Yonchwcho | | | | | | | | | | | |
| CL31 | Nagaland | Wokha | | Pangti | | | 1, seasonal | | | | | | | | |
| CL32 | Tamil Nadu | Sivagangai | Thirupathur | Thiruppathur | 1, seasonal | 1, Seasonal | 11, seasonal | 1, seasonal | | 20 | 93 | 10 | 133 | 150 | 74 |
| CL33 | Tripura | North Tripura | Jampui hills | Lamgthireck | | | 1, Permanent | 3, Permanent | | | | | | 2 | |

WAR for Water

| Cluster s | State | District | Tehsil/Taluka | Village | River | Canal | Pond | Lake | Other s | Wells | Hand Pumps Public Use | Hand Pumps Pvt. Use | Electric pumps Public Use | Electric pumps Pvt. Use | Stand posts |
|-----------|-------------|---------------|---------------|------------------|--------------|---------------|-----------------|---------------|---------|-------|-----------------------|---------------------|---------------------------|-------------------------|-------------|
| CL33 | Tripura | North Tripura | Jampui hills | Tuikrain Para | | | | 10, Permanent | | | | | | 10 | |
| CL33 | Tripura | North Tripura | Jampui hills | Chhinskan g | | | | 1, Permanent | | | | | | 10 | |
| CL33 | Tripura | North Tripura | Jampui hills | Hmomplui | | | | 5, Permanent | | | | | | | |
| CL33 | Tripura | North Tripura | Jampui hills | Sabul | | | | 10, Permanent | | | | | | 5 | |
| CL33 | Tripura | North Tripura | Jampui hills | Tlanasana | | | | 3, Permanent | | | | | | 10 | |
| CL33 | Tripura | North Tripura | Jampui hills | Vanahmun | | | 1, Permanent | 5, Permanent | | | | | | 20 | |
| CL34 | Kerala | Kasragod | Kasragod | Delampady, Adour | 1, Permanent | 37, Permanent | 1000, Permanent | | | | 45 | 130 | | 380 | |
| CL35 | Maharashtra | Sangli | Shirala | Natholi | | | | 3, Permanent | | | 9 | | 1 | 100 | |
| CL35 | Maharashtra | Sangli | Shirala | Kande | 1, Permanent | | 2, Permanent | | | 57 | 18 | | | 22 | |
| CL35 | Maharashtra | Sangli | Shirala | Fakirvadi | | | 15, seasonal | 4, seasonal | | 7 | 7 | | | 7 | |
| CL35 | Maharashtra | Sangli | Shirala | Mangle | 2, Permanent | | | 3, seasonal | | 136 | 30 | | 10 | 50 | 38 |
| CL35 | Maharashtra | Sangli | Shirala | Chikhali | 1, Permanent | | | 1, Permanent | | 70 | 3 | | | 4 | 9 |

WAR for Water

| Cluster s | State | District | Tehsil/Taluka | Village | River | Canal | Pond | Lake | Other s | Wells | Hand Pumps Public Use | Hand Pumps Pvt. Use | Electric pumps Public Use | Electric pumps Pvt. Use | Stand posts |
|-----------|-------------------|-----------------|----------------|-------------|-------------|--------------|---------------|-------------|--------------|-------|-----------------------|---------------------|---------------------------|-------------------------|-------------|
| CL36 | Arunachal Pradesh | Papumapara | Naharlagun | Naharlagun | | | 3, Permanent | | | 5 | | | | | |
| CL37 | Haryana | Jajjar | Beri | Dighal | | 2, Permanent | 13, Permanent | | | 200 | | | | | |
| CL38 | Meghalaya | Est. Khasi Hill | Shella Bhola | Cherapunji | | | 3 | | | | | | | | |
| CL39 | West Bengal | Darjeeling | Sukhiya Pokhri | Seyok | | | | | 1, Permanent | | | | | | |
| CL39 | West Bengal | Darjeeling | Sukhiya Pokhri | Chamong | | | | | 1, Permanent | | | | | | |
| CL39 | West Bengal | Darjeeling | Sukma Pokri | Molanty | | | | | 3, Permanent | | | | | | |
| CL39 | West Bengal | Darjeeling | Sukhiya Pokhri | Gopal Dhara | | | | | 1, Permanent | | | | | | |
| CL40 | Gujarat | Sabar Kantha | Meghraj | Mudshi | | | | 1, seasonal | | 200 | 30 | | 4 | 50 | |
| CL40 | Gujarat | Sabar Kantha | Meghraj | Bodewada | | | | | | 200 | 150 | | | 1000 | |
| CL40 | Gujarat | Sabar Kantha | Meghraj | Ramgadi | | | 1, seasonal | | | 20 | 12 | | 3 | 3 | 15 |
| CL41 | Gujarat | Sabar Kantha | Malpur | Halodar | 1, seasonal | | 5, seasonal | | | 150 | 60 | | | 100 | |

WAR for Water

| Cluster s | State | District | Tehsil/Taluka | Village | River | Canal | Pond | Lake | Other s | Wells | Hand Pumps Public Use | Hand Pumps Pvt. Use | Electric pumps Public Use | Electric pumps Pvt. Use | Stand posts |
|-----------|----------------|--------------|------------------|-----------------|--------------|-------|--------------|--------------|--------------|-------|-----------------------|---------------------|---------------------------|-------------------------|-------------|
| CL41 | Gujarat | Sabar Kantha | Malpur | Ramboda | 1, seasonal | | | 2, Permanent | | 100 | 40 | | | | |
| CL42 | Gujarat | Sabar Kantha | Bhiloda | Mota Kanthariya | | | | 1, seasonal | | 100 | 50 | | | 20 | |
| CL42 | Gujarat | Sabar Kantha | Bhiloda | Ramara | | | | 1, seasonal | | 40 | 35 | | 20 | 10 | |
| CL43 | Punjab | Bhatinda | Talwandi | Giaana | 1, Permanent | | 2, Permanent | | | | | 400 | | 150 | |
| CL43 | Punjab | Bhatinda | Talwandi | Malkanaa | | | 3, Permanent | | 8, Permanent | | 5 | 200 | | 50 | 30 |
| CL43 | Punjab | Bhatinda | Talwandi | Jajjal | | | 3, Permanent | | | | | 200 | | 100 | |
| CL44 | Andhra Pradesh | Srikikulam | Sarubujjili | Kavity | | | | | | 5 | 51 | 50 | 4 | 1300 | 320 |
| CL45 | Andhra Pradesh | Prakasam | Cheemakurthy | P. Naidupelm | | | | | | | 40 | | 1500 | 1000 | |
| CL45 | Andhra Pradesh | Prakasam | Podili | Mailavaram | | | | 1, Permanent | | 7 | 14 | | 18 | 10 | |
| CL45 | Andhra Pradesh | Prakasam | Santhanuthlapadu | K V Palem | | | | 1, Permanent | | 10 | 5 | 100 | | 150 | |
| CL45 | Andhra Pradesh | Prakasam | Cheemakurthy | Yeragudipadu | | | | | | 3 | 15 | | | 50 | |
| CL45 | Andhra Pradesh | Prakasam | Cheemakurthy | Chemillemuri | | | | 1, Permanent | | 20 | 20 | 4 | | 80 | |

WAR for Water

| Cluster s | State | District | Tehsil/Taluka | Village | River | Canal | Pond | Lake | Other s | Wells | Hand Pumps Public Use | Hand Pumps Pvt. Use | Electric pumps Public Use | Electric pumps Pvt. Use | Stand posts |
|-----------|----------------|-------------|---------------|-------------|--------------|--------------|------------|---------------|-----------|-------|-----------------------|---------------------|---------------------------|-------------------------|-------------|
| CL45 | Andhra Pradesh | Prakasa m | Veligandl a | Reddy Nagar | | | | 1, Permanent | | | 5 | | | 40 | |
| CL45 | Andhra Pradesh | Prakasa m | Cheemak urthy | Pullikonda | | | | 1, Permanent | | 3 | 30 | | 12 | 400 | |
| CL46 | Maharas htra | Thane | Palghar | Kelva | | | | 4, Permanent | | 17 | 4 | | | | 36 |
| CL46 | Maharas htra | Thane | Palghar | Mahim | | | | 18, Permanent | | 540 | 36 | 35 | 2 | 164 | 95 |
| CL47 | West Bengal | 24 Praganas | Goshaba | Biraj Nagar | 2, Permanent | 1, Permanent | 2000, Both | | | | 8 | | | | |
| CL47 | West Bengal | 24 Praganas | Goshaba | Bijoy Nagar | 2, Permanent | 5, Permanent | 2000, Both | | | | 17 | | | | |
| CL48 | Rajastha n | Jhunjhun u | Jhunjhun u | Pilani city | | | | | | 2 | | | | | |
| CL49 | Uttarakh and | Bageshw ar | Bageshw ar | Bageshwar | 2, Permanent | | | | 1, naul a | | 10 | | | | 10 |

WAR for Water

Government of India schemes in the villages

GOI has specific schemes for provision and distribution of water to rural areas. (<http://www.rural.nic.in/g1.htm>):

Under the scheme a reservoir is constructed in the village and distribution systems developed (either piped distribution to individual homes or piped distribution through stand posts created for community water drawing). In some cases if stand posts are not adequately developed the communities fill water directly from the reservoir.

Where the scheme is still not been operationalised, the columns would be blank.

This data is provided in the next table Table 4.3.

In the context of the charges people have to pay, the current power supply in the villages, there is a differential understanding of the efficacy of such schemes to provide water to rural populations. There are also some social dynamics in favour or against the collective provision of water and the willingness to pay for it.

The data of water charges, power supply and also the current state of monsoon is given in Table 4.4

The complete rainfall data (though district wise) is given in the annexure separately.

In Table 4.5, the willingness and social contexts are provided.

WAR for Water

Table 4.3- GOVERNMENT SCHEMES PER VILLAGE

| Clusters | State | District | Tehsil/Taluka | Village | ARWS/RWS Connection | OHSR Capacity in ltr. |
|----------|----------------|----------------|----------------|-----------------|---------------------|-----------------------|
| CL1 | Andhra Pradesh | Nellore | Nellore | Bhujbhuji | 1700 | 120000 |
| CL2 | Andhra Pradesh | Nellore | Nellore | Kothur | 500 | 60000 & 90000 |
| CL3 | Punjab | Muktsar | Muktsar | Maan Singh Wala | 77 | 240000 |
| CL3 | Punjab | Muktsar | Muktsar | Bariwala | | |
| CL4 | Rajasthan | Nagaur | Ladnun | Jaswantgarh | 1200 | 240000 |
| CL5 | Rajasthan | Nagaur | Ladnun | Kasumbi | | 240000 |
| CL6 | Rajasthan | Sawai Madhopur | Bamanvas | Dabar | | |
| CL6 | Rajasthan | Sawai Madhopur | Bamanvas | Sitor | | |
| CL6 | Rajasthan | Sawai Madhopur | Bamanvas | Sitapura | | |
| CL7 | Rajasthan | Sawai Madhopur | Bamanvas | Piplai | | 2,40,000 |
| CL7 | Rajasthan | Sawai Madhopur | | Bamanbaroda | | 1,20,000 |
| CL8 | Rajasthan | Churu | Ratanhgarh | Bhudhawali | | 240000 |
| CL8 | Rajasthan | Churu | Ratanhgarh | Meensar | | - |
| CL8 | Rajasthan | Churu | Ratanhgarh | Seetsar | | |
| CL8 | Rajasthan | Churu | Ratanhgarh | bheenchari | | |
| CL9 | Tamil Nadu | Virudhunagar | Srivilliputhur | Mamsapuram | 903 | 1 300000 |
| CL10 | West Bengal | Purulia | Purulia | Ghangha | | |
| CL10 | West Bengal | Purulia | Purulia 2 | Purda | | |
| CL11 | Madhya Pradesh | Raisen | Raisen | Mangaon | 400 | |
| CL11 | Madhya Pradesh | Raisen | Raisen | Parvariya | 125 | |
| CL11 | Madhya Pradesh | Raisen | Raisen | Pagnesar | 300 | 60000 (Not started) |
| CL11 | Madhya Pradesh | Raisen | Raisen | Girvar | 110 | |
| CL12 | Kerala | Ernakulum | Kanaiyanur | Kadamakudy | 620 | 1125000 |
| CL13 | Kerala | Alapuzha | Kuttanadu | Kainekeri | 300 | 2 15000 & 1300000 |
| CL14 | Assam | Kamrup | Noonmati | Birkuch | 85 | 60000 |
| CL14 | Assam | Kamrup | Chandarpur | Bonda | 85 | 90000 |
| CL15 | Gujarat | Patan | Chanaswan | Brahmanwada | 2 | |
| CL15 | Gujarat | Patan | Chanaswan | Borsum | 698 | 120000 |
| CL15 | Gujarat | Patan | Chanaswan | Bhatsar | 800 | |
| CL16 | Gujarat | Mehsana | Visnagar | Paldi | 654 | |
| CL16 | Gujarat | Mehsana | Visnagar | Hasanpur | 400 | |
| CL16 | Gujarat | Mehsana | Visnagar | Gunja | 1800 | |
| CL17 | Madhya Pradesh | Seoni | Keolari | Bibhari | 300 | |
| CL17 | Madhya Pradesh | Seoni | Keolari | Ghoorwada | 200 | |
| CL17 | Madhya Pradesh | Seoni | Keolari | Dutera | 250 | 60000 |

WAR for Water

| Clusters | State | District | Tehsil/Taluka | Village | ARWS/RWS Connection | OHSR Capacity in ltr. |
|----------|----------------|--------------|---------------|----------------------|---------------------|-------------------------|
| CL17 | Madhya Pradesh | Seoni | Keolari | Sarekha | 291 | 60000 |
| CL17 | Madhya Pradesh | Seoni | Keolari | Sakri | 450 | 60000 |
| CL17 | Madhya Pradesh | Seoni | Keolari | Aarandia | 200 | |
| CL18 | Punjab | Muktsar | Malot | Killian Wali Mandi | 100 | 60000 |
| CL18 | Punjab | Muktsar | Malot | Killian Wali Village | 200 | 120000 |
| CL19 | Punjab | Muktsar | Malot | Warning khera | 250 | 60000 |
| CL19 | Punjab | Muktsar | Malot | Channu | | 120000 |
| CL19 | Punjab | Muktsar | Malot | Chak Medu Khera | | 90000 |
| CL20 | Chhattisgarh | Jashpur | Jashpur | Gidha | 300 | |
| CL20 | Chhattisgarh | Jashpur | Jashpur | Sonkyari | 250 | 60000 |
| CL20 | Chhattisgarh | Jashpur | Jashpur | Andharjhar | 220 | |
| CL20 | Chhattisgarh | Jashpur | Jashpur | Talasili | 260 | |
| CL20 | Chhattisgarh | Jashpur | Jashpur | Aastha | 400 | Tank under construction |
| CL20 | Chhattisgarh | Jashpur | Jashpur | Manora | 500 | 90000 |
| CL20 | Chhattisgarh | Jashpur | Jashpur | Madhva | 220 | |
| CL21 | Manipur | Bishnupur | Moirang | - | | |
| CL22 | Manipur | Imphal west | Lamsang | Sekmai | | 90000 |
| CL23 | Manipur | Thoubal | Kakching | - | 5778 | |
| CL24 | Rajasthan | Sanganer | Sanganer | Manpura Nagalai | | 240000 |
| CL24 | Rajasthan | Sanganer | Sanganer | Purushottampura | | 60,000 |
| CL24 | Rajasthan | Sanganer | Sanganer | Suraj pura | | 60000 |
| CL24 | Rajasthan | Sanganer | Sanganer | Dayalpura | | 60,000 |
| CL24 | Rajasthan | Sanganer | Sanganer | Bhatawala | | |
| CL24 | Rajasthan | Sanganer | Sanganer | Gavar jatan | | 60000 |
| CL24 | Rajasthan | Sanganer | Sanganer | Shosinghpura | | 60,000 |
| CL24 | Rajasthan | Sanganer | Sanganer | Kalawala | | 90000 |
| CL24 | Rajasthan | Sanganer | Sanganer | Gavar Brahmana | | 60000 |
| CL25 | Rajasthan | Sanganer | Sanganer | Watika | | 2,40,000 |
| CL26 | Karnataka | Gulbarga | Yadgir | Yelhari | 800 | 60000 & 120000 |
| CL27 | Assam | Jorhat | Titbor | - | 50 | 90000 |
| CL28 | Haryana | Mohindergarh | Mahendergarh | Khudana | 1500 | 240000 |
| CL28 | Haryana | Mohindergarh | Mahendergarh | Garhi | 150 | 60000 |
| CL29 | Maharashtra | Ratnagiri | Chiplun | Aakale | | |
| CL29 | Maharashtra | Ratnagiri | Chiplun | Tivare | 350 | 60000 |
| CL29 | Maharashtra | Ratnagiri | Chiplun | Kddavad | | |
| CL29 | Maharashtra | Ratnagiri | Chiplun | Dhamnavne | 320 | 120000 |
| CL29 | Maharashtra | Ratnagiri | Chiplun | Kherdi | | 120000 |
| CL30 | UP | Jhansi | Jhansi | Raksa | | 60000 |
| CL30 | UP | Jhansi | Jhansi | Ghisoli | 30 | 10000 |
| CL31 | Nagaland | Wokha | - | Lakhuti | | - |

WAR for Water

| Clusters | State | District | Tehsil/Taluka | Village | ARWS/RWS Connection | OHSR Capacity in ltr. |
|----------|-------------------|-----------------|------------------|------------------|---------------------|-------------------------------|
| CL31 | Nagaland | Wokha | | Yonchwcho | | - |
| CL31 | Nagaland | Wokha | | Pangti | | - |
| CL32 | Tamil Nadu | Sivagangai | Thiruppathur | Thiruppathur | 1591 | 360000 & 330000 & 11000000 |
| CL33 | Tripura | North Tripura | Jampui hills | Lamgthireck | | - |
| CL33 | Tripura | North Tripura | Jampui hills | Tuikrain Para | | - |
| CL33 | Tripura | North Tripura | Jampui hills | Chhinslkang | | - |
| CL33 | Tripura | North Tripura | Jampui hills | Hmomplui | | - |
| CL33 | Tripura | North Tripura | Jampui hills | Sabul | | - |
| CL33 | Tripura | North Tripura | Jampui hills | Tlanasana | | - |
| CL33 | Tripura | North Tripura | Jampui hills | Vanahmun | | - |
| CL34 | Kerala | Kasragod | Kasragod | Delampady, Adour | | |
| CL35 | Maharashtra | Sangli | Shirala | Natholi | | |
| CL35 | Maharashtra | Sangli | Shirala | Kande | 452 | 90000 |
| CL35 | Maharashtra | Sangli | Shirala | Fakirvadi | | |
| CL35 | Maharashtra | Sangli | Shirala | Mangle | 1100 | 120000 |
| CL35 | Maharashtra | Sangli | Shirala | Chikhali | 233 | 90000 |
| CL36 | Arunachal Pradesh | Papumapara | Naharlagun | Naharlagun | | 90000 |
| CL37 | Haryana | Jajjar | Beri | Dighal | 946 | 240000 |
| CL38 | Meghalaya | Est. Khasi Hill | Shella Bhola | Cherapunji | | 90000 |
| CL39 | West Bengal | Darjeeling | Sukhiya Pokhri | Seyok | | |
| CL39 | West Bengal | Darjeeling | Sukhiya Pokhri | Chamong | | |
| CL39 | West Bengal | Darjeeling | Sukma Pokri | Molanty | | |
| CL39 | West Bengal | Darjeeling | Sukhiya Pokhri | Gopal Dhara | | |
| CL40 | Gujarat | Sabar Kantha | Meghraj | Mudshi | | |
| CL40 | Gujarat | Sabar Kantha | Meghraj | Bodewada | | |
| CL40 | Gujarat | Sabar Kantha | Meghraj | Ramgadi | 100 | 60000 |
| CL41 | Gujarat | Sabar Kantha | Malpur | Halodar | | |
| CL41 | Gujarat | Sabar Kantha | Malpur | Ramboda | | |
| CL42 | Gujarat | Sabar Kantha | Bhiloda | Mota Kanthariya | | |
| CL42 | Gujarat | Sabar Kantha | Bhiloda | Ramara | | |
| CL43 | Punjab | Bhatinda | Talwandi | Gaana | 70 | 60000 |
| CL43 | Punjab | Bhatinda | Talwandi | Malkanaa | | 60000 |
| CL43 | Punjab | Bhatinda | Talwandi | Jajjal | | 60000 |
| CL44 | Andhra Pradesh | Srikikulam | Sarubujjili | Kavity | | 2,40,000 |
| CL45 | Andhra Pradesh | Prakasam | Cheemakurthy | P. Naidupelm | | 4000 |
| CL45 | Andhra Pradesh | Prakasam | Podili | Mailavaram | | |
| CL45 | Andhra Pradesh | Prakasam | Santhanuthlapadu | K V Palem | | |
| CL45 | Andhra Pradesh | Prakasam | Cheemakurthy | Yeragudipadu | | |

WAR for Water

| Clusters | State | District | Tehsil/Taluka | Village | ARWS/RWS Connection | OHSR Capacity in ltr. |
|----------|----------------|-------------|---------------|--------------|---------------------|-----------------------|
| CL45 | Andhra Pradesh | Prakasam | Cheemakurthy | Chemillemuri | | |
| CL45 | Andhra Pradesh | Prakasam | Veligandla | Reddy Nagar | | |
| CL45 | Andhra Pradesh | Prakasam | Cheemakurthy | Pullikonda | | |
| CL46 | Maharashtra | Thane | Palghar | Kelva | 640 | 180000 |
| CL46 | Maharashtra | Thane | Palghar | Mahim | 4381 | 550000 |
| CL47 | West Bengal | 24 Praganas | Goshaba | Biraj Nagar | | |
| CL47 | West Bengal | 24 Praganas | Goshaba | Bijoy Nagar | | |
| CL48 | Rajasthan | Jhunjhunu | Jhunjhunu | Pilani city | | 240000 |
| CL49 | Uttarakhand | Bageshwar | Bageshwar | Bageshwar | 714 | 2 CWR (225 & 75 kl) |

WAR for Water

Table 4.4- GOVERNMENT OF INDIA SCHEMES (Power and charges issues)

| Clusters | State | District | Tehsil/Taluka | Village | Type of rainfall | No. of h our power supply | RWS/ARWS charges | Harvesting System |
|----------|----------------|----------------|----------------|-----------------|------------------|---------------------------|------------------|-------------------|
| CL1 | Andhra Pradesh | Nellore | Nellore | Bhujbhuji | Normal | 18 | Free Of Cost | |
| CL2 | Andhra Pradesh | Nellore | Nellore | Kothur | Normal | 16 | Free Of Cost | yes |
| CL3 | Punjab | Muktsar | Muktsar | Maan Singh Wala | Scarce | 17 | | |
| CL3 | Punjab | Muktsar | Muktsar | Bariwala | Normal | 15 | | |
| CL4 | Rajasthan | Nagaur | Ladnun | Jaswantgarh | Scarce | 15 | | yes |
| CL5 | Rajasthan | Nagaur | Ladnun | Kasumbi | Scarce | 14 | | yes |
| CL6 | Rajasthan | Sawai Madhopur | Bamanvas | Dabar | Scarce | 4 | | |
| CL6 | Rajasthan | Sawai Madhopur | Bamanvas | Sitor | Scarce | 8 | Free Of Cost | |
| CL6 | Rajasthan | Sawai Madhopur | Bamanvas | Sitapura | Scarce | 3 | | |
| CL7 | Rajasthan | Sawai Madhopur | Bamanvas | Piplai | Scarce | 3 | | |
| CL7 | Rajasthan | Sawai Madhopur | | Bamanbaroda | Scarce | 5 | | |
| CL8 | Rajasthan | Churu | Ratanhgarh | Bhudhawali | Scarce | 16 | Free Of Cost | |
| CL8 | Rajasthan | Churu | Ratanhgarh | Meenasar | Scarce | 19 | Free Of Cost | |
| CL8 | Rajasthan | Churu | Ratanhgarh | Seetsar | Scarce | 8 | Free Of Cost | |
| CL8 | Rajasthan | Churu | Ratanhgarh | bheenchari | Scarce | 6 | Free Of Cost | yes |
| CL9 | Tamil Nadu | Virudhunagar | Srivilliputhur | Mamsapuram | Scarce | 14 | | yes |
| CL10 | West Bengal | Purulia | Purulia | Ghangha | Scarce | 15 | | |
| CL10 | West Bengal | Purulia | Purulia 2 | Purda | Scarce | 20 | | |
| CL11 | Madhya Pradesh | Raisen | Raisen | Mangaon | Scarce | 9 | Free Of Cost | yes |
| CL11 | Madhya Pradesh | Raisen | Raisen | Parvariya | Scarce | 6 | Free Of Cost | yes |
| CL11 | Madhya Pradesh | Raisen | Raisen | Pagnesar | Scarce | 6 | Free Of Cost | yes |
| CL11 | Madhya Pradesh | Raisen | Raisen | Girvar | Scarce | 5 | Free Of Cost | |
| CL12 | Kerala | Ernakulum | Kanaiyanur | Kadamakudy | Normal | 14 | Free Of Cost | yes |
| CL13 | Kerala | Alapuzha | Kuttanadu | Kainekeri | Normal | 12 | | yes |
| CL14 | Assam | Kamrup | Noonmati | Birkuch | Excess | 8 | Free Of Cost | |
| CL14 | Assam | Kamrup | Chandarpur | Bonda | Excess | 8 | Free Of Cost | |
| CL15 | Gujarat | Patan | Chanaswan | Brahmanwada | Normal | 16 | | |
| CL15 | Gujarat | Patan | Chanaswan | Borsum | Normal | 16 | Free Of Cost | |

WAR for Water

| Clusters | State | District | Tehsil/Taluka | Village | Type of rainfall | No. of h our power supply | RWS/ARWS charges | Harvesting System |
|----------|----------------|-------------|---------------|----------------------|------------------|---------------------------|-----------------------------|-------------------|
| CL15 | Gujarat | Patan | Chanawan | Bhatsar | Normal | 16 | Free Of Cost | |
| CL16 | Gujarat | Mehsana | Visnagar | Paldi | Normal | 16 | | yes |
| CL16 | Gujarat | Mehsana | Visnagar | Hasanpur | Normal | 16 | Free Of Cost | |
| CL16 | Gujarat | Mehsana | Visnagar | Gunja | Scarce | 16 | | |
| CL17 | Madhya Pradesh | Seoni | Keolari | Bibhari | Normal | 8 | Free Of Cost | yes |
| CL17 | Madhya Pradesh | Seoni | Keolari | Ghoorwada | Normal | 6 | Free Of Cost | yes |
| CL17 | Madhya Pradesh | Seoni | Keolari | Dutera | Normal | 5 | 25/month | yes |
| CL17 | Madhya Pradesh | Seoni | Keolari | Sarekha | Normal | 7 | 29/month | |
| CL17 | Madhya Pradesh | Seoni | Keolari | Sakri | Normal | 5 | Free Of Cost | |
| CL17 | Madhya Pradesh | Seoni | Keolari | Aarandia | Normal | 5 | Free Of Cost | yes |
| CL18 | Punjab | Muktsar | Malot | Killian Wali Mandi | Normal | 5 | 10 Paisa/litre for RO Water | |
| CL18 | Punjab | Muktsar | Malot | Killian Wali Village | Normal | 8 | 10 Paisa/litre for RO Water | |
| CL19 | Punjab | Muktsar | Malot | Warning khera | Normal | 8 | 10 Paisa/litre for RO Water | |
| CL19 | Punjab | Muktsar | Malot | Channu | Scarce | 10 | 10 Paisa/litre for RO Water | |
| CL19 | Punjab | Muktsar | Malot | Chak Medu Khera | Scarce | 18 | 10 Paisa/litre for RO Water | |
| CL20 | Chhattisgarh | Jashpur | Jashpur | Gidha | Normal | 8 | Free Of Cost | yes |
| CL20 | Chhattisgarh | Jashpur | Jashpur | Sonkyari | Normal | 6 | Free Of Cost | yes |
| CL20 | Chhattisgarh | Jashpur | Jashpur | Andharjhar | Normal | 8 | Free Of Cost | yes |
| CL20 | Chhattisgarh | Jashpur | Jashpur | Talasil | Normal | 8 | Free Of Cost | yes |
| CL20 | Chhattisgarh | Jashpur | Jashpur | Aastha | Normal | 7 | Free Of Cost | yes |
| CL20 | Chhattisgarh | Jashpur | Jashpur | Manora | Normal | 17 | 60/month | yes |
| CL20 | Chhattisgarh | Jashpur | Jashpur | Madhva | Normal | 8 | Free Of Cost | |
| CL21 | Manipur | Bishnupur | Moirang | - | - | 8 | Free Of Cost | |
| CL22 | Manipur | Imphal west | Lamsang | Sekmai | Scarce | 9 | Free Of Cost | |
| CL23 | Manipur | Thoubal | Kakching | - | - | 7 | Free Of Cost | |
| CL24 | Rajasthan | Sanganer | Sanganer | Manpura Nagalai | Scarce | 3 | | |
| CL24 | Rajasthan | Sanganer | Sanganer | Purushottampura | Scarce | 12 | | |

WAR for Water

| Clusters | State | District | Tehsil/Taluka | Village | Type of rainfall | No. of h our power supply | RWS/ARWS charges | Harvesting System |
|----------|-------------|---------------|---------------|----------------|------------------|---------------------------|------------------|-------------------|
| CL24 | Rajasthan | Sanganer | Sanganer | Suraj pura | Scarce | 12 | | yes |
| CL24 | Rajasthan | Sanganer | Sanganer | Dayalpura | Scarce | 6 | | |
| CL24 | Rajasthan | Sanganer | Sanganer | Bhatawala | Scarce | 6 | | |
| CL24 | Rajasthan | Sanganer | Sanganer | Gavar jatan | Scarce | 12 | | |
| CL24 | Rajasthan | Sanganer | Sanganer | Shosinghpura | Normal | 7 | Free Of Cost | |
| CL24 | Rajasthan | Sanganer | Sanganer | Kalawala | Normal | 8 | Free Of Cost | |
| CL24 | Rajasthan | Sanganer | Sanganer | Gavar Brahmana | Scarce | 12 | Free Of Cost | |
| CL25 | Rajasthan | Sanganer | Sanganer | Watika | Scarce | 18 | Rs 52/2 months | |
| CL26 | Karnataka | Gulbarga | Yadgir | Yelhari | Normal | 12 | | |
| CL27 | Assam | Jorhat | Titbor | - | - | 10 | Free Of Cost | |
| CL28 | Haryana | Mohindergarh | Mahendergarh | Khudana | Normal | 6 | Free Of Cost | |
| CL28 | Haryana | Mohindergarh | Mahendergarh | Garhi | Scarce | 18 | Free Of Cost | |
| CL29 | Maharashtra | Ratnagiri | Chiplun | Aakale | Normal | 5 | 365 rs/yr | |
| CL29 | Maharashtra | Ratnagiri | Chiplun | Tivare | Normal | 5 | 450 rs/year | |
| CL29 | Maharashtra | Ratnagiri | Chiplun | Kddavad | Normal | 5 | | |
| CL29 | Maharashtra | Ratnagiri | Chiplun | Dhamnavne | Normal | 18 | Charged | yes |
| CL29 | Maharashtra | Ratnagiri | Chiplun | Kherdi | Excess | 19 | Free Of Cost | |
| CL30 | UP | Jhansi | Jhansi | Raksa | Scarce | 18 | rs.1 per day | |
| CL30 | UP | Jhansi | Jhansi | Ghisoli | 0 | 18 | 60/month | yes |
| CL31 | Nagaland | Wokha | - | Lakhuti | Normal | 8 | | |
| CL31 | Nagaland | Wokha | | Yonchwcho | 0 | 8 | | |
| CL31 | Nagaland | Wokha | | Pangti | Normal | 7 | | |
| CL32 | Tamil Nadu | Sivagangai | Thiruppathur | Thiruppathur | Scarce | 17 | | yes |
| CL33 | Tripura | North Tripura | Jampui hills | Lamgthireck | Normal | 10 | | yes |
| CL33 | Tripura | North Tripura | Jampui hills | Tuikrain Para | Normal | 12 | | yes |
| CL33 | Tripura | North Tripura | Jampui hills | Chhinslkang | Normal | 10 | | |
| CL33 | Tripura | North Tripura | Jampui hills | Hmomplui | Normal | 15 | | |
| CL33 | Tripura | North Tripura | Jampui hills | Sabul | Normal | 15 | | |
| CL33 | Tripura | North Tripura | Jampui hills | Tlanasana | Normal | 15 | | |
| CL33 | Tripura | North Tripura | Jampui hills | Vanahmun | Normal | 20 | | yes |

WAR for Water

| Clusters | State | District | Tehsil/Taluka | Village | Type of rainfall | No. of hour power supply | RWS/ARWS charges | Harvesting System |
|----------|-------------------|-----------------|------------------|------------------|------------------|--------------------------|-----------------------------|-------------------|
| CL34 | Kerala | Kasragod | Kasragod | Delampady, Adour | Normal | 16 | | |
| CL35 | Maharashtra | Sangli | Shirala | Natholi | Excess | 5 | | |
| CL35 | Maharashtra | Sangli | Shirala | Kande | Normal | 12 | 420/family/annum | |
| CL35 | Maharashtra | Sangli | Shirala | Fakirvadi | 0 | 16 | | |
| CL35 | Maharashtra | Sangli | Shirala | Mangle | Excess | 12 | 360/yr/pvt & 75/yr/general | |
| CL35 | Maharashtra | Sangli | Shirala | Chikhali | Normal | 12 | 360/yr/pvt & 150/yr/general | |
| CL36 | Arunachal Pradesh | Papumapara | Naharlagun | Naharlagun | Normal | 14 | Free Of Cost | |
| CL37 | Haryana | Jajjar | Beri | Dighal | Normal | 17 | 20Rs/Month | |
| CL38 | Meghalaya | Est. Khasi Hill | Shella Bhola | Cherapunji | - | 10 | Free Of Cost | |
| CL39 | West Bengal | Darjeeling | Sukhiya Pokhri | Seyok | Excess | 18 | | |
| CL39 | West Bengal | Darjeeling | Sukhiya Pokhri | Chamong | Excess | 18 | | |
| CL39 | West Bengal | Darjeeling | Sukma Pokri | Molanty | Excess | 18 | | |
| CL39 | West Bengal | Darjeeling | Sukhiya Pokhri | Gopal Dhara | Excess | 20 | | |
| CL40 | Gujarat | Sabar Kantha | Meghraj | Mudshi | Scarce | 16 | | |
| CL40 | Gujarat | Sabar Kantha | Meghraj | Bodewada | Scarce | 16 | | |
| CL40 | Gujarat | Sabar Kantha | Meghraj | Ramgadi | Scarce | 18 | | |
| CL41 | Gujarat | Sabar Kantha | Malpur | Halodar | Scarce | 17 | | |
| CL41 | Gujarat | Sabar Kantha | Malpur | Ramboda | Scarce | 18 | | |
| CL42 | Gujarat | Sabar Kantha | Bhiloda | Mota Kanthariya | 0 | 6 | | |
| CL42 | Gujarat | Sabar Kantha | Bhiloda | Ramara | 0 | 7 | | |
| CL43 | Punjab | Bhatinda | Talwandi | Giaana | Normal | 5 | 10 Paisa/litre for RO Water | |
| CL43 | Punjab | Bhatinda | Talwandi | Malkanaa | Normal | 18 | 10 Paisa/litre for RO Water | |
| CL43 | Punjab | Bhatinda | Talwandi | Jajjal | Normal | 18 | | |
| CL44 | Andhra Pradesh | Srikikulam | Sarubujjili | Kavity | Normal | 18 | Free Of Cost | yes |
| CL45 | Andhra Pradesh | Prakasam | Cheemakurthy | P. Naidupelm | Normal | 15 | | |
| CL45 | Andhra Pradesh | Prakasam | Podili | Mailavaram | Normal | 12 | | |
| CL45 | Andhra Pradesh | Prakasam | Santhanuthlapadu | K V Palem | Normal | 12 | | |
| CL45 | Andhra Pradesh | Prakasam | Cheemakurthy | Yeragudipadu | Normal | 14 | 330/10000 ltr | |

WAR for Water

| Clusters | State | District | Tehsil/Taluka | Village | Type of rainfall | No. of h our power supply | RWS/ARWS charges | Harvesting System |
|----------|----------------|-------------|---------------|--------------|------------------|---------------------------|--------------------|-------------------|
| CL45 | Andhra Pradesh | Prakasam | Cheemakurthy | Chemillemuri | Normal | 18 | | |
| CL45 | Andhra Pradesh | Prakasam | Veligandla | Reddy Nagar | Normal | 18 | | |
| CL45 | Andhra Pradesh | Prakasam | Cheemakurthy | Pullikonda | Normal | 16 | | |
| CL46 | Maharashtra | Thane | Palghar | Kelwa | Normal | 18 | 72 /person/annum | |
| CL46 | Maharashtra | Thane | Palghar | Mahim | Normal | 17 | 36/person/annum | |
| CL47 | West Bengal | 24 Praganas | Goshaba | Biraj Nagar | Normal | 15 | | yes |
| CL47 | West Bengal | 24 Praganas | Goshaba | Bijoy Nagar | Normal | 15 | Free Of Cost | yes |
| CL48 | Rajasthan | Jhunjhunu | Jhunjhunu | Pilani city | Scarce | 18 | | Yes |
| CL49 | Uttarakhand | Bageshwar | Bageshwar | Bageshwar | Normal | 22 | AS per govt. Norms | No |

WAR for Water

Table 4.5- WILLINGNESS TO PAY FOR DRINKING WATER IN CASE PROVIDED

| Cluster | State | District | Tehsil/Taluka | Village | Willingness | Gen | SC | ST | OBC |
|---------|----------------|----------------|----------------|-----------------|-------------|-----|-----|-----|-----|
| CL01 | Andhra Pradesh | Nellore | Nallore | Bhujbhuj | 60% | 34% | 14% | 14% | 39% |
| CL02 | Andhra Pradesh | Nellore | Nellore | Kothur | 60% | 40% | 20% | 10% | 30% |
| CL03 | Punjab | Muktsar | Muktsar | Maan Singh Wala | | 30% | 50% | | 20% |
| CL03 | Punjab | Muktsar | Muktsar | Bariwala | 50% | 50% | 31% | 3% | 17% |
| CL04 | Rajasthan | Nagaur | Ladnun | Jaswantgarh | 100% | 50% | 15% | | 35% |
| CL05 | Rajasthan | Nagaur | Ladnun | Kasumbi | 100% | 10% | 20% | | 70% |
| CL06 | Rajasthan | Sawai Madhopur | Bamanvas | Dabar | 100% | 25% | 25% | 30% | 20% |
| CL06 | Rajasthan | Sawai Madhopur | Bamanvas | Sitor | | 10% | 25% | 15% | 50% |
| CL06 | Rajasthan | Sawai madhopur | Bamanvas | Sitapura | 100% | 30% | 40% | | 30% |
| CL07 | Rajasthan | Sawai madhopur | Bamanvas | Piplai | 100% | | 16% | 2% | 82% |
| CL07 | Rajasthan | Sawai Madhopur | | Bamanbaroda | 100% | 50% | 25% | | 25% |
| CL08 | Rajasthan | Churu | Ratanhgarh | Bhudhawali | 100% | 50% | 40% | | 10% |
| CL08 | Rajasthan | Churu | Ratanhgarh | Meenasar | 100% | 40% | 20% | | 40% |
| CL08 | Rajasthan | Churu | Ratanhgarh | Seetsar | 100% | 30% | 20% | | 50% |
| CL08 | Rajasthan | Churu | Ratanhgarh | bheenchari | 100% | 49% | 11% | | 40% |
| CL09 | Tamil Nadu | Virudhunagar | Srivilliputhur | Mamsapuram | 100% | 79% | 21% | | |
| CL10 | West Bangal | Purulia | Purulia | Ghangha | 100% | 23% | 38% | 3% | 38% |
| CL10 | West Bangal | Purulia | Purulia 2 | Purda | 100% | 50% | 20% | 30% | |
| CL11 | Madhya Pardesh | Raisen | Raisen | Mangaon | 100% | 15% | 22% | 27% | 36% |
| CL11 | Madhya Pardesh | Raisen | Raisen | Parvariya | 100% | 15% | 27% | 15% | 42% |
| CL11 | Madhya Pardesh | Raisen | Raisen | Pagnesar | | 15% | 23% | 31% | 31% |
| CL11 | Madhya Pardesh | Raisen | Raisen | Girvar | 100% | 10% | 18% | 10% | 63% |
| CL12 | Kerela | Ernakulam | Kanaiyanur | Kadamakudy | 70% | 92% | 8% | | |
| CL13 | Kerela | Alapuzha | Kuttanadu | Kainekeri | 70% | 98% | 2% | | |
| CL14 | Assam | Kamrup | Noonmati | Birkuch | 100% | 50% | 10% | 30% | 10% |

WAR for Water

| | | | | | | | | | |
|-------------|----------------|-------------|------------|----------------------|------|--------|--------|-------|-----|
| CL14 | Assam | Kamrup | Chandarpur | Bonda | 100% | 30% | 5% | 50% | 15% |
| CL15 | Gujarat | Patan | Chanaswan | Brahmanwada | 100% | 1% | 3% | 3% | 94% |
| CL15 | Gujarat | Patan | Chanaswan | Borsum | 100% | 33% | 15% | 29% | 23% |
| CL15 | Gujarat | Patan | Chanaswan | Bhatsar | 100% | 26% | 19% | | 55% |
| CL16 | Gujarat | Mehsana | Visnagar | Paldi | 100% | 15% | 17% | | 68% |
| CL16 | Gujarat | Mehsana | Visnagar | Hasanpur | 70% | 54% | 11% | 25% | 9% |
| CL16 | Gujarat | Mehsana | Visnagar | Gunja | 100% | 72% | 16% | 8% | 4% |
| CL17 | Madhya Pardesh | Seoni | Keolari | Bibhari | | 10% | 26% | 51% | 13% |
| CL17 | Madhya Pardesh | Seoni | Keolari | Ghoorwada | 100% | 25% | 3% | 46% | 26% |
| CL17 | Madhya Pardesh | Seoni | Keolari | Dutera | 100% | 15% | 26% | 41% | 19% |
| CL17 | Madhya Pardesh | Seoni | Keolari | Sarekha | | 11% | 22% | 47% | 19% |
| CL17 | Madhya Pardesh | Seoni | Keolari | sakri | | 6% | 22% | 47% | 25% |
| CL17 | Madhya Pardesh | Seoni | Keolari | Aarandia | | 9% | 17% | 61% | 13% |
| CL18 | Punjab | Muktsar | Malot | Killian Wali Mandi | 100% | 58% | 42% | | |
| CL18 | Punjab | Muktsar | Malot | Killian Wali Village | 80% | 50% | 42% | | 8% |
| CL19 | Punjab | Muktsar | Malot | Warning khera | 100% | 50% | 44% | | 6% |
| CL19 | Punjab | Muktsar | Malot | Channu | 100% | 23% | 55% | | 22% |
| CL19 | Punjab | Muktsar | Malot | Chak Medu Khera | 10% | 44% | 56% | | |
| CL20 | Chhatisgarh | Jashpur | Jashpur | Gidha | | 17% | 1% | 82% | |
| CL20 | Chhatisgarh | Jashpur | Jashpur | Sonkyari | 100% | 37% | 3% | 60% | |
| CL20 | Chhatisgarh | Jashpur | Jashpur | Andharjhar | | 47% | 4% | 49% | |
| CL20 | Chhatisgarh | Jashpur | Jashpur | Talasili | 60% | 53% | 3% | 44% | |
| CL20 | Chhatisgarh | Jashpur | Jashpur | Aastha | | 41% | 2% | 57% | |
| CL20 | Chhatisgarh | Jashpur | Jashpur | Manora | 100% | 36% | 7% | 58% | |
| CL20 | Chhatisgarh | Jashpur | Jashpur | Madhva | | 30% | | 70% | |
| CL21 | Manipur | Bishnupur | Moirang | - | 100% | 95.98% | | 0.18% | |
| CL22 | Manipur | Imphal west | Lamsang | Sekmai | | 0.13% | 95.88% | 0.25% | 4% |
| CL23 | Manipur | Thoubal | Kakchang | - | 100% | 2.44% | 97.48% | | |

WAR for Water

| | | | | | | | | | |
|-------------|-------------|---------------|--------------|-----------------|------|------|-----|-----|-----|
| CL24 | Rajasthan | Sanganer | Sanganer | Manpura nagalai | 100% | 49% | 49% | 1% | |
| CL24 | Rajasthan | Sanganer | Sanganer | Purushottampura | 100% | 73% | 3% | 3% | 20% |
| CL24 | Rajasthan | Sanganer | Sanganer | Suraj pura | 100% | 30% | 20% | 50% | |
| CL24 | Rajasthan | Sanganer | Sanganer | Dayalpura | 100% | 50% | 19% | 31% | |
| CL24 | Rajasthan | Sanganer | Sanganer | Bhatawala | 100% | 80% | 14% | 4% | 2% |
| CL24 | Rajasthan | Sanganer | Sanganer | gavar jatan | 100% | 20% | 80% | | |
| CL24 | Rajasthan | Sanganer | Sanganer | Shosinghpura | 100% | 15% | 50% | 13% | 22% |
| CL24 | Rajasthan | Sanganer | Sanganer | Kalawala | 100% | 25% | 10% | 65% | |
| CL24 | Rajasthan | Sanganer | Sanganer | Gavar Brahmana | 100% | 40% | 10% | 10% | 40% |
| CL25 | Rajasthan | Sanganer | Sanganer | Watika | 100% | 38% | 8% | 5% | 50% |
| CL26 | Karnataka | Gulbarga | Yadgir | Yelhari | 7% | 17% | 3% | 74% | |
| CL27 | Assam | Jorhat | Titbor | - | 100% | | | | |
| CL28 | Haryana | Mohindergarh | Mahendergarh | Khudana | 100% | 60% | 13% | 27% | |
| CL28 | Haryana | Mohindergarh | Mahendergarh | Garhi | 100% | 60% | 14% | 26% | |
| CL29 | Maharashtra | Ratnagiri | Chiplun | Aakale | 71% | | | | |
| CL29 | Maharashtra | Ratnagiri | Chiplun | Tivare | 60% | 3% | 3% | 94% | |
| CL29 | Maharashtra | Ratnagiri | Chiplun | Kddavad | 30% | | | | |
| CL29 | Maharashtra | Ratnagiri | Chiplun | Dhamnavne | 33% | | | | |
| CL29 | Maharashtra | Ratnagiri | Chiplun | Kherdi | 43% | | | | |
| CL30 | UP | Jhansi | Jhansi | Raksa | 100% | 78% | 21% | 1% | |
| CL30 | UP | Jhansi | Jhansi | Ghisoli | 90% | 70% | 20% | 10% | |
| CL31 | Nagaland | Wokha | - | Lakhuti | 100% | 100% | | | |
| CL31 | Nagaland | Wokha | Yonchwcho | 100% | 100% | | | | |
| CL31 | Nagaland | Wokha | Pangti | 100% | 100% | | | | |
| CL32 | Tamil Nadu | Sivagangai | Thiruppathur | Thiruppathur | 100% | 87% | 13% | | |
| CL33 | Tripura | North Tripura | Jampui hills | Lamgthireck | 100% | 100% | | | |
| CL33 | Tripura | North Tripura | Jampui hills | Tuikrain Para | 100% | 100% | | | |
| CL33 | Tripura | North Tripura | Jampui hills | Chhinslkang | 70% | 100% | | | |
| CL33 | Tripura | North Tripura | Jampui hills | Hmomplui | 100% | 100% | | | |

WAR for Water

| | | | | | | | | | |
|-------------|-------------------|-----------------|----------------|------------------|------|-----|-----|-----|------|
| CL33 | Tripura | North Tripura | Jampui hills | Sabul | 90% | | | | 100% |
| CL33 | Tripura | North Tripura | Jampui hills | Tlanasana | 80% | | | | 100% |
| CL33 | Tripura | North Tripura | Jampui hills | Vanahmun | 100% | | | | 100% |
| CL34 | Kerela | Kasragod | Kasragod | Delampady, Adour | 70% | 95% | 5% | | |
| CL35 | Maharashtra | sangli | Shirala | Natholi | 30% | | | | |
| CL35 | Maharashtra | sangli | Shirala | Kande | 100% | | | | |
| CL35 | Maharashtra | sangli | Shirala | Fakirvadi | | | | | |
| CL35 | Maharashtra | sangli | Shirala | Mangle | 60% | | | | |
| CL35 | Maharashtra | sangli | Shirala | Chikhali | | 74% | | 15% | 11% |
| CL36 | Arunachal Pradesh | Papumapara | Naharlagun | Naharlagun | 40% | 5% | 75% | 20% | |
| CL37 | Haryana | Jajjar | Beri | Dighal | 90% | 75% | 13% | | 13% |
| CL38 | Meghalya | Est. Khasi Hill | Shella Bhola | Cherapunji | 100% | 2% | | 95% | 3% |
| CL39 | West Bangal | Darjaling | Sukhiya Pokhri | Seyok | | 49% | 13% | 28% | 11% |
| CL39 | West Bangal | Darjaling | Sukhiya Pokhri | Chamong | | 43% | 13% | 33% | 10% |
| CL39 | West Bangal | Darjaling | Sukma Pokri | Molanty | | 60% | 15% | 20% | 5% |
| CL39 | West Bangal | Darjaling | Sukhiya Pokhri | Gopal Dhara | | 58% | 12% | 24% | 5% |
| CL40 | Gujarat | Sabar Kantha | Meghraj | Mudshi | | | | | 100% |
| CL40 | Gujarat | Sabar Kantha | Meghraj | Bodewada | | | | | 100% |
| CL40 | Gujarat | Sabar Kantha | Meghraj | Ramgadi | 50% | 2% | 3% | 2% | 94% |
| CL41 | Gujarat | Sabar Kantha | Malpur | Halodar | 70% | 17% | 8% | | 75% |
| CL41 | Gujarat | Sabar Kantha | Malpur | Ramboda | 20% | | 3% | | 98% |
| CL42 | Gujarat | Sabar Kantha | Bhiloda | Mota Kanthariya | | | | | 100% |
| CL42 | Gujarat | Sabar Kantha | Bhiloda | Ramara | 50% | | | | 100% |
| CL43 | Punjab | Bhatinda | Talwandi | Giaana | 100% | 50% | 40% | 5% | 5% |
| CL43 | Punjab | Bhatinda | Talwandi | Malkanaa | 50% | 70% | 30% | | |
| CL43 | Punjab | Bhatinda | Talwandi | Jajjal | 50% | 75% | 10% | 10% | 5% |
| CL44 | Andhra Pradesh | Srikikulam | Sarubujjili | Kavity | 100% | 36% | | | 63% |
| CL45 | Andhra Pradesh | Prakasam | Cheemakurthy | P. Naidupelm | 80% | 7% | 57% | | 36% |
| CL45 | Andhra Pradesh | Prakasam | podili | Mailavaram | | 25% | 13% | 5% | 58% |

WAR for Water

| | | | | | | | | | |
|-------------|----------------|--------------|------------------|--------------|------|-----|-----|-----|-----|
| CL45 | Andhra Pradesh | Prakasam | Santhanuthlapadu | K V Palem | 60% | 20% | 8% | 12% | 60% |
| CL45 | Andhra Pradesh | Prakasam | Cheemakurthy | Yeragudipadu | 60% | 23% | 40% | 7% | 30% |
| CL45 | Andhra Pradesh | Prakasam | Cheemakurthy | Chemillemuri | 50% | 45% | 21% | 27% | 7% |
| CL45 | Andhra Pradesh | Prakasam | Veligandla | Reddy Nagar | 100% | 71% | | | 29% |
| CL45 | Andhra Pradesh | Prakasam | Cheemakurthy | Pullikonda | 10% | 18% | 16% | 7% | 59% |
| CL46 | Maharashtra | Thane | Palghar | Kelwa | 50% | 1% | | 20% | 79% |
| CL46 | Maharashtra | Thane | Palghar | Mahim | 100% | 67% | 2% | 31% | |
| CL47 | West Bangal | 24 Paraganas | Goshaba | Biraj Nager | | 34% | 38% | 28% | |
| CL47 | West Bangal | 24 Paraganas | Goshaba | Bijoy Nagar | 60% | 35% | 38% | 7% | 20% |
| CL48 | Rajasthan | jhunjhunu | jhunjhunu | Pilani city | | 78% | 19% | 4% | |
| CL49 | Uttarakhand | Bageshwar | Bageshwar | Bageshwar | | 69% | 20% | 4% | 6% |

WAR for Water

Water Usage and Sources maps

The alternate uses of water (for drinking, livestock, irrigation etc.) are mapped against the alternate sources of water in the next table. It would be required to have an appropriate water resource for the pilot plant and the current water usage would be useful in assessing the most suitable water resource for the pilot plant in the selected location.

Keys

| | | |
|-----|---|------------|
| D | = | Drinking |
| IRR | = | Irrigation |
| HH | = | Household |
| LS | = | Livestock |
| IND | = | Industrial |

WAR for Water

Table 4.6- WATER USAGE AND SOURCES MAPS

| Clusters | State | District | Tehsil/Taluka | Village | River | Canal | Pond | Lake | Others | Wells | Hand Pumps Public Use | Hand Pumps Pvt. Use | Electric pumps Public Use | Electric pumps Pvt. Use |
|----------|----------------|----------------|---------------|-----------------|-------|-------|------|--------|--------|------------------------------------|-----------------------|---------------------|---------------------------|-------------------------|
| CL1 | Andhra Pradesh | Nellore | Nellore | Bhujbhuj | | | | IRR,LS | | IRR,HH,LS | HH | D,HH | D,IRR,H,LS | HH,IRR |
| CL2 | Andhra Pradesh | Nellore | Nellore | Kothur | | | | | | IRR,LS | D,HH,LS | | D | HH |
| CL3 | Punjab | Muktsar | Muktsar | Maan Singh Wala | | | | | | | | | | D,HH,LS |
| CL3 | Punjab | Muktsar | Muktsar | Bariwala | | | | | | | | D,HH | | D,LS |
| CL4 | Rajasthan | Nagaur | Ladnun | Jaswantgarh | | | | | | dry used as dump yard | D,HH | | | |
| CL5 | Rajasthan | Nagaur | Ladnun | Kasumbi | | | D,HH | | | D | D,HH | | | |
| CL6 | Rajasthan | Sawai Madhopur | Bamanvas | Dabar | | | | | | all dry no use, used as dump yards | D,HH,LS | | D,HH | |
| CL6 | Rajasthan | Sawai Madhopur | Bamanvas | Sitor | | | | | | D,HH,LS | D,HH | | | |
| CL6 | Rajasthan | Sawai Madhopur | Bamanvas | Sitapura | | | | | | D | D,HH,LS | | | |
| CL7 | Rajasthan | Sawai Madhopur | Bamanvas | Piplai | | | D | | | | D,HH,LS | | D,HH,LS | |
| CL7 | Rajasthan | Sawai Madhopur | | Bamanbaroda | | | D | | | | D,HH,LS | D | D,HH,LS | D,HH |

WAR for Water

| Clusters | State | District | Tehsil/Taluka | Village | River | Canal | Pond | Lake | Others | Wells | Hand Pumps Public Use | Hand Pumps Pvt. Use | Electric pumps Public Use | Electric pumps Pvt. Use |
|----------|----------------|--------------|----------------|------------|-----------|--------|-----------|--------|--------|----------|-----------------------|---------------------|---------------------------|-------------------------|
| CL8 | Rajasthan | Churu | Ratanhgarh | Bhudhawali | | | D | | | HH,LS | | D | D,HH | D,HH |
| CL8 | Rajasthan | Churu | Ratanhgarh | Meenasar | | | D | | | HH,LS | D | | D | |
| CL8 | Rajasthan | Churu | Ratanhgarh | Seetsar | | | D | | | HH,LS | D | | | |
| CL8 | Rajasthan | Churu | Ratanhgarh | bheenchari | | | D | | | HH,LS | D,HH | D | D | |
| CL9 | Tamil Nadu | Virudhunagar | Srivilliputhur | Mamsapuram | | | IRR,LS | | | D | D | D,HH | D,HH | D,IRR |
| CL10 | West Bengal | Purulia | Purulia | Ghangha | | | IRR,HH,LS | | | HH,D | HH,D | HH,D | | |
| CL10 | West Bengal | Purulia | Purulia 2 | Purda | | | RR,HH,LS | | | HH,D | HH,D | | | |
| CL11 | Madhya Pradesh | Raisen | Raisen | Mangaon | IRR,HH,LS | | IRR,HH,LS | | | DD,HH,LS | DD,HH,LS | DD,HH,LS | DD,HH,LS | DD,HH,LS |
| CL11 | Madhya Pradesh | Raisen | Raisen | Parvariya | IRR,HH,LS | | | | | DD,HH,LS | DD,HH,LS | | | DD,HH,LS |
| CL11 | Madhya Pradesh | Raisen | Raisen | Pagnesar | IRR,HH,LS | | | | | DD,HH,LS | DD,HH,LS | | | DD,HH,LS |
| CL11 | Madhya Pradesh | Raisen | Raisen | Girvar | IRR,HH,LS | | | | | DD,HH,LS | DD,HH,LS | | | DD,HH,LS |
| CL12 | Kerala | Ernakulam | Kanaiyanur | Kadamakudy | IRR | IRR | LS | | | HH | D | D | | |
| CL13 | Kerala | Alapuzha | Kuttanadu | Kainekeri | IRR | IRR,HH | LS | IRR,HH | | HH | D | D | | |
| CL14 | Assam | Kamrup | Noonmati | Birkuchi | IRR,HH | | | | | | IRR,HH | | D | |

WAR for Water

| Clusters | State | District | Tehsil/Taluka | Village | River | Canal | Pond | Lake | Others | Wells | Hand Pumps Public Use | Hand Pumps Pvt. Use | Electric pumps Public Use | Electric pumps Pvt. Use |
|----------|----------------|----------|---------------|--------------------|-----------|---------------|--------------|--------------|--------|----------|-----------------------|---------------------|---------------------------|-------------------------|
| CL14 | Assam | Kamrup | Chandarpur | Bonda | IRR,HH | | | | | | IRR,HH | | D | |
| CL15 | Gujarat | Patan | Chanaswan | Brahmanwada | | IRR,HH & LS | | IRR,HH,LS | | D,HH | | | IRR | IRR |
| CL15 | Gujarat | Patan | Chanaswan | Borsum | | IRR, HH & LS | | | | | | | D | D,HH |
| CL15 | Gujarat | Patan | Chanaswan | Bhatsar | | IRR,HH & LS | IRR,HH & LS | IRR,HH & LS | | D | | | D | |
| CL16 | Gujarat | Mehsana | Visnagar | Paldi | | LS, HH & IRR | LS, HH & IRR | LS, HH & IRR | | D | | | D | D |
| CL16 | Gujarat | Mehsana | Visnagar | Hasanpur | LS,HH,IRR | LS, HH & IRR | | LS,HH,IRR | | D | | | D | D |
| CL16 | Gujarat | Mehsana | Visnagar | Gunja | | IRR, HH, & LS | | IRR,HH,LS | | D | | | | D |
| CL17 | Madhya Pradesh | Seoni | Keolari | Bibhari | | | LS,HH | | | D,HH,LS | D,HH,LS | | D,HH,LS | |
| CL17 | Madhya Pradesh | Seoni | Keolari | Ghoorwada | HH, LS | | | | | D,HH,LS | D,HH,LS | | | |
| CL17 | Madhya Pradesh | Seoni | Keolari | Dutera | | | HH, LS | | | D,HH,LS | D,HH,LS | | D,HH,LS | |
| CL17 | Madhya Pradesh | Seoni | Keolari | Sarekha | HH,LS | | HH,LS | | | D,HH,LS | D,HH,LS | | | |
| CL17 | Madhya Pradesh | Seoni | Keolari | Sakri | HH,LS | | HH,LS | | | D,HH,LS | D,HH,LS | | D,HH,LS | |
| CL17 | Madhya Pradesh | Seoni | Keolari | Aarandia | HH,LS | | | | | D,HH,LS | D,HH,LS | | | |
| CL18 | Punjab | Muktsar | Malot | Killian Wali Mandi | | | IRR | | | No water | IRR | IRR | | IRR |

WAR for Water

| Clusters | State | District | Tehsil/Taluka | Village | River | Canal | Pond | Lake | Others | Wells | Hand Pumps Public Use | Hand Pumps Pvt. Use | Electric pumps Public Use | Electric pumps Pvt. Use |
|----------|--------------|-------------|---------------|----------------------|-------------|-------------|-------------|------|--------|----------|-----------------------|---------------------|---------------------------|-------------------------|
| CL18 | Punjab | Muktsar | Malot | Killian Wali Village | | | LS,IRR | | | | D,HH | D,IRR | | |
| CL19 | Punjab | Muktsar | Malot | Warning khera | IRR,LS | | IRR,HH | | | | D,HH | D,HH | | |
| CL19 | Punjab | Muktsar | Malot | Channu | IRR | IRR | IRR | | | | IRR,D,HH | | IRR,HH,D | |
| CL19 | Punjab | Muktsar | Malot | Chak Medu Khera | IRR | IRR | LS | | | No water | IRR,D | IRR,D | | |
| CL20 | Chhattisgarh | Jashpur | Jashpur | Gidha | | IRR,HH,LS | | | | D,HH,LS | D,HH,LS | | | |
| CL20 | Chhattisgarh | Jashpur | Jashpur | Sonkyari | | IRR,HH,DD | HH,LS | | | D,HH,LS | D,HH,LS | | | |
| CL20 | Chhattisgarh | Jashpur | Jashpur | Andharjhar | | D,HH,IRR,LS | | | | D,HH,LS | D,HH,LS | | | |
| CL20 | Chhattisgarh | Jashpur | Jashpur | Talasili | | | D,HH,IRR,LS | | | D,HH,LS | D,HH,LS | | | |
| CL20 | Chhattisgarh | Jashpur | Jashpur | Aastha | | | D,HH,IRR,LS | | | D,HH,LS | D,HH,LS | | | |
| CL20 | Chhattisgarh | Jashpur | Jashpur | Manora | D,HH,IRR,LS | | D,HH,IRR,LS | | | D,HH,LS | D,HH,LS | | | |
| CL20 | Chhattisgarh | Jashpur | Jashpur | Madhva | | | D,IRR,HH,LS | | | D,HH | DD,HH | | | |
| CL21 | Manipur | Bishnupur | Moirang | Moirang | IRR | | HH | | | D,HH | | | | |
| CL22 | Manipur | Imphal west | Lamsang | Sekmai | IRR, HH | D,HH | | | | D,HH | | | | |
| CL23 | Manipur | Thoubal | Kakching | Kakching | IRR, HH | IRR | HH | | | | D,HH | D,HH | | |

WAR for Water

| Clusters | State | District | Tehsil/Taluka | Village | River | Canal | Pond | Lake | Others | Wells | Hand Pumps Public Use | Hand Pumps Pvt. Use | Electric pumps Public Use | Electric pumps Pvt. Use |
|----------|-----------|--------------|---------------|-----------------|---------|-------|-------|------|--------|-------|-----------------------|---------------------|---------------------------|-------------------------|
| CL24 | Rajasthan | Sanganer | Sanganer | Manpura Nagalai | | | HH | | | | | | | |
| CL24 | Rajasthan | Sanganer | Sanganer | Purushottampura | | | | | | D,HH | D,HH | D,HH | | |
| CL24 | Rajasthan | Sanganer | Sanganer | Suraj pura | | | | | | | D,HH | D,HH | D,HH | |
| CL24 | Rajasthan | Sanganer | Sanganer | Dayalpura | | | LS,HH | | | | D,HH | | D,HH | |
| CL24 | Rajasthan | Sanganer | Sanganer | Bhatawala | | | LS,HH | | | | D,HH | | D,HH | |
| CL24 | Rajasthan | Sanganer | Sanganer | Gavar jatan | | | | | | D,HH | D,HH | D,HH | D,HH | |
| CL24 | Rajasthan | Sanganer | Sanganer | Shosinghpura | | | | | | | D,HH | | | |
| CL24 | Rajasthan | Sanganer | Sanganer | Kalawala | | | LS,HH | | | | D,HH | | | |
| CL24 | Rajasthan | Sanganer | Sanganer | Gavar Brahmana | | | LS,HH | | | D,HH | D,HH | D,HH | D,HH | |
| CL25 | Rajasthan | Sanganer | Sanganer | Watika | | | D,HH | | | | D,HH | | | D,HH |
| CL26 | Karnataka | Gulbarga | Yadgir | Yelhari | | | | | | D, HH | D, HH | | D, HH | IRR |
| CL27 | Assam | Jorhat | Titbor | Titbor | IRR, HH | | | | | | | D,HH | D,HH | |
| CL28 | Haryana | Mohindergarh | Mahendergarh | Khudana | | | | | | D,HH | D,HH | | IRR,LS | DD,HH |
| CL28 | Haryana | Mohindergarh | Mahendergarh | Garhi | | | LS | | | | D,HH | HH,DD | IRR,LS | |

WAR for Water

| Clusters | State | District | Tehsil/Taluka | Village | River | Canal | Pond | Lake | Others | Wells | Hand Pumps Public Use | Hand Pumps Pvt. Use | Electric pumps Public Use | Electric pumps Pvt. Use |
|----------|-------------|---------------|---------------|---------------|-----------|-------|--------|---------|--------|--------|-----------------------|---------------------|---------------------------|-------------------------|
| CL29 | Maharashtra | Ratnagiri | Chiplun | Aakale | | | | | | D | D, IRR,LS | | D | D, IRR,LS |
| CL29 | Maharashtra | Ratnagiri | Chiplun | Tivare | IRR,HH,LS | | | | | D,LS | D,LS | D,LS | D,LS | D,LS |
| CL29 | Maharashtra | Ratnagiri | Chiplun | Kddavad | IRR | | | | D | D | D,LS | D,LS | D,LS | D,LS |
| CL29 | Maharashtra | Ratnagiri | Chiplun | Dhamnavne | | | | | | | D,LS | D,LS | D,LS | D,LS |
| CL29 | Maharashtra | Ratnagiri | Chiplun | Kherdi | | | | | | | D,LS | D,LS | D,LS | D,LS |
| CL30 | UP | Jhansi | Jhansi | Raksa | IRR,LS | IRR | IRR,LS | | | HH,D | HH,D | HH,D | | |
| CL30 | UP | Jhansi | Jhansi | Ghisoli | IRR,LS | | LS | | | IRR,HH | D | D | | |
| CL31 | Nagaland | Wokha | - | Lakhuti | | | HH | | | | | | | |
| CL31 | Nagaland | Wokha | | Yonchwcho | | | | | | | | | | |
| CL31 | Nagaland | Wokha | | Pangti | | | HH | | | | | | | |
| CL32 | Tamil Nadu | Sivaganai | Thiruppathur | Thiruppathur | IRR,D | IRR | LS | IRR | | HH | D | HH | HH | HH |
| CL33 | Tripura | North Tripura | Jampui hills | Lamgthireck | | | D | HH,D | | | | | | |
| CL33 | Tripura | North Tripura | Jampui hills | Tuikrain Para | | | | D,HH,LS | | | | | | D,HH,LS |
| CL33 | Tripura | North Tripura | Jampui hills | Chhinslkang | | | | D,HH,LS | | | | | | D,HH,LS |

WAR for Water

| Clusters | State | District | Tehsil/Taluka | Village | River | Canal | Pond | Lake | Others | Wells | Hand Pumps Public Use | Hand Pumps Pvt. Use | Electric pumps Public Use | Electric pumps Pvt. Use |
|----------|-------------------|-----------------|----------------|------------------|--------|-------|---------|---------|-----------------|-------|-----------------------|---------------------|---------------------------|-------------------------|
| CL33 | Tripura | North Tripura | Jampui hills | Hmomplui | | | | D,HH,LS | | | | | | D,HH,LS |
| CL33 | Tripura | North Tripura | Jampui hills | Sabul | | | | D,HH,LS | | | | | | D,HH,LS |
| CL33 | Tripura | North Tripura | Jampui hills | Tlanasana | | | | D,HH,LS | | | | | | D,HH,LS |
| CL33 | Tripura | North Tripura | Jampui hills | Vanahmun | | | D,HH,LS | D,HH,LS | | | | | | D,HH,LS |
| CL34 | Kerala | Kasragod | Kasragod | Delampady, Adour | IRR | IRR | IRR,LS | | | | D | D | | D |
| CL35 | Maharashtra | Sangli | Shirala | Natholi | | | | LS | | | D,HH | D,LS | | |
| CL35 | Maharashtra | Sangli | Shirala | Kande | D,LS | | LS | | | D,LS | D,HH | | | |
| CL35 | Maharashtra | Sangli | Shirala | Fakirvadi | | | LS | LS | | D,LS | D,HH | | D | |
| CL35 | Maharashtra | Sangli | Shirala | Mangle | D,LS | | | LS | | D,LS | D,HH | | | |
| CL35 | Maharashtra | Sangli | Shirala | Chikhali | NO USE | | | LS | | D,LS | D,HH | D,LS | | |
| CL36 | Arunachal Pradesh | Papumpara | Naharlagun | Naharlagun | | HH | | D,HH | | | | | | |
| CL37 | Haryana | Jajjar | Beri | Dighal | | IRR,D | IRR,LS | | | D,LS | | | | D,LS |
| CL38 | Meghalaya | Est. Khasi Hill | Shella Bholia | Cherapunji | | | D,LS | | | | | | | |
| CL39 | West Bengal | Darjeeling | Sukhiya Pokhri | Seyok | | | | | D,IRR,HH,LS,IND | | | | | |

WAR for Water

| Clusters | State | District | Tehsil/Taluka | Village | River | Canal | Pond | Lake | Others | Wells | Hand Pumps Public Use | Hand Pumps Pvt. Use | Electric pumps Public Use | Electric pumps Pvt. Use |
|----------|----------------|--------------|----------------|-----------------|-------|-------|---------------|--------|--------|-------------------------|-----------------------|---------------------|---------------------------|-------------------------|
| CL39 | West Bengal | Darjeeling | Sukhiya Pokhri | Chamong | | | | | | D,IRR,H H,LS | | | | |
| CL39 | West Bengal | Darjeeling | Sukma Pokri | Molanty | | | | | | D,IRR,H H,LS,IN D | | | | |
| CL39 | West Bengal | Darjeeling | Sukhiya Pokhri | Gopal Dhara | | | | | | D,IRR,H H,LS,IN D | | | | |
| CL40 | Gujarat | Sabar Kantha | Meghraj | Mudshi | | | | IRR,LS | | D, IRR,LS, HH | D,HH,L S | | D,HH | D,HH,IR R |
| CL40 | Gujarat | Sabar Kantha | Meghraj | Bodewada | | | | | | D,IRR,H H,LS | D, HH,LS | | | D,HH,L S,IRR |
| CL40 | Gujarat | Sabar Kantha | Meghraj | Ramgadi | | | LS | | | D,IRR,H H,LS | D,HH,L S | | D | D |
| CL41 | Gujarat | Sabar Kantha | Malpur | Halodar | IRR | | | | | D,HH | D,HH,L S | | | D,HH,L S,IRR |
| CL41 | Gujarat | Sabar Kantha | Malpur | Ramboda | IRR | | HH,IRR, LS | LS | | D,IRR,H H,LS | D,IRR,H H,LS | | | |
| CL42 | Gujarat | Sabar Kantha | Bhiloda | Mota Kanthariya | | | | LS,IRR | | IRR | D, IRR, HH | | | D,IRR |
| CL42 | Gujarat | Sabar Kantha | Bhiloda | Ramara | | | | LS,IRR | | D | HH, LS | | IRR | D,IRR |
| CL43 | Punjab | Bhatinda | Talwandi | Giaana | IRR | | IRR,D | | | | D | D,LS | | IRR |
| CL43 | Punjab | Bhatinda | Talwandi | Malkanaa | | | | | LS | | IRR, LS | D, LS | | IRR |
| CL43 | Punjab | Bhatinda | Talwandi | Jajjal | | | IRR | | | | IRR,LS | D,IRR | | IRR |
| CL44 | Andhra Pradesh | Srikikulam | Sarubujjili | Kavity | | | | | | D,IRR,H H | D,HH | D,HH | D,IRR,H H | D,HH |

WAR for Water

| Clusters | State | District | Tehsil/Taluka | Village | River | Canal | Pond | Lake | Others | Wells | Hand Pumps Public Use | Hand Pumps Pvt. Use | Electric pumps Public Use | Electric pumps Pvt. Use |
|----------|----------------|-------------|-------------------|---------------|-------|-------|------|--------|--------|--------|-----------------------|---------------------|---------------------------|-------------------------|
| CL45 | Andhra Pradesh | Prakasa m | Cheemakurthy | P. Naidupelm | | | | | | | HH | | IRR | IRR |
| CL45 | Andhra Pradesh | Prakasa m | Podili | Mailavaram | | | | IRR | | | HH,LS | | HH,IRR,LS | HH |
| CL45 | Andhra Pradesh | Prakasa m | Santhanuthalapadu | K V Palem | | | | IRR | | IRR,LS | HH,LS | HH & D | | D,HH,LS |
| CL45 | Andhra Pradesh | Prakasa m | Cheemakurthy | Yeragudipadu | | | | | | IRR,LS | HH,LS | | | HH,LS |
| CL45 | Andhra Pradesh | Prakasa m | Cheemakurthy | Chemillemu ri | | | | IRR | | IRR,LS | HH,LS | HH | | IRR |
| CL45 | Andhra Pradesh | Prakasa m | Veligandla | Reddy Nagar | | | | IRR,LS | | | HH,LS | | | HH,LS |
| CL45 | Andhra Pradesh | Prakasa m | Cheemakurthy | Pullikonda | | | | IRR,LS | | D,IRR | HH,LS | | IRR,LS | HH,LS |
| CL46 | Maharashtra | Thane | Palghar | Kelwa | | | | HH,LS | | IRR | D | | | |
| CL46 | Maharashtra | Thane | Palghar | Mahim | | | | LS IRR | | LS,D | LS | LS | LS,D | LS |
| CL47 | West Bengal | 24 Praganas | Goshaba | Biraj Nagar | D | IRR | LS | | | | D | | | |
| CL47 | West Bengal | 24 Praganas | Goshaba | Bijoy Nagar | D | IRR | LS | | | | D | | | |
| CL48 | Rajasthan | Jhunjhunu | Jhunjhunu | Pilani city | | | | | | HH,LS | | | | D,HH |
| CL49 | Uttarakhand | Bageshwar | Bageshwar | Bageshwar | | | | | | | | | | |

WAR for Water

Contamination and Problems

While the starting point of the survey was the internal exercise done by each state identifying the basic water problem based on river bed data, the survey additionally captured people's perceptions on water problems – specifically contamination of water by impurities rendering it unfit for human consumption/ drinking.

In many cases the state governments match people's views which lead to a better control opportunity, however in some cases it does not. This data is presented for each village in the following table.

WAR for Water

Table 4.7- WATER CONTAMINATION

| Clusters | State | District | Tehsil/Taluka | Village | Fluoride | Iron | Salt | QD | Silicon | LPCA | Industrial waste | Arsenic | Calcium | Sulphur | BC | CTMS | SCFS |
|----------|----------------|----------------|---------------|-----------------|----------|------|------|----|---------|------|------------------|---------|---------|---------|----|------|------|
| CL1 | Andhra Pradesh | Nellore | Nellore | Bhujbhuj | | ✓ | | | | | | | | | | | |
| CL2 | Andhra Pradesh | Nellore | Nellore | Kothur | | ✓ | | | | | | | | | | | |
| CL3 | Punjab | Muktsar | Muktsar | Maan Singh Wala | | | ✓ | | | | | | | | | | |
| CL3 | Punjab | Muktsar | Muktsar | Bariwala | | | | ✓ | | | | | | | | | |
| CL4 | Rajasthan | Nagaur | Ladnun | Jaswantgarh | ✓ | | ✓ | | | | | | | | | | |
| CL5 | Rajasthan | Nagaur | Ladnun | Kasumbi | | | ✓ | | | ✓ | | | | | | | |
| CL6 | Rajasthan | Sawai Madhopur | Bamanvas | Dabar | | | | | | | | | | | | | |
| CL6 | Rajasthan | Sawai Madhopur | Bamanvas | Sitor | ✓ | | ✓ | | | ✓ | | | | | | | |
| CL6 | Rajasthan | Sawai Madhopur | Bamanvas | Sitapura | | | ✓ | | | ✓ | | | | | | | |
| CL7 | Rajasthan | Sawai Madhopur | Bamanvas | Piplai | ✓ | | | | | | | | | | | | |
| CL7 | Rajasthan | Sawai Madhopur | | Bamanbaroda | ✓ | | | | | | | | | | | | |
| CL8 | Rajasthan | Churu | Ratanhgarh | Bhudhawali | | | ✓ | | | | | | | | | | |
| CL8 | Rajasthan | Churu | Ratanhgarh | Meenasar | | | ✓ | | | | | | | | | | |
| CL8 | Rajasthan | Churu | Ratanhgarh | Seetsar | | | ✓ | | | | | | | | | | |

WAR for Water

| Clusters | State | District | Tehsil/Taluka | Village | Fluoride | Iron | Salt | QD | Silicon | LPCA | Industrial waste | Arsenic | Calcium | Sulphur | BC | CTMS | SCFS |
|----------|----------------|--------------|----------------|-------------|----------|------|------|----|---------|------|------------------|---------|---------|---------|----|------|------|
| CL8 | Rajasthan | Churu | Ratanhgarh | bheenchari | | | ✓ | | | | | | | | | | |
| CL9 | Tamil Nadu | Virudhunagar | Srivilliputhur | Mamsapuram | | | | | | ✓ | | | | | | | |
| CL10 | West Bengal | Purulia | Purulia | Ghangha | ✓ | | | | | ✓ | | | | | | | |
| CL10 | West Bengal | Purulia | Purulia 2 | Purda | ✓ | | | | | ✓ | | | | | | | |
| CL11 | Madhya Pradesh | Raisen | Raisen | Mangaon | | | | | | | | | | | ✓ | | |
| CL11 | Madhya Pradesh | Raisen | Raisen | Parvariya | | | | | | | | | | | ✓ | | |
| CL11 | Madhya Pradesh | Raisen | Raisen | Pagnesar | | | ✓ | | | | | | | | ✓ | | |
| CL11 | Madhya Pradesh | Raisen | Raisen | Girvar | | | | | | | | | | | ✓ | | |
| CL12 | Kerala | Ernakulum | Kanaiyanur | Kadamakudy | | | | | | | ✓ | | | | | | |
| CL13 | Kerala | Alapuzha | Kuttanadu | Kainekeri | | | | | | | ✓ | | | | ✓ | | |
| CL14 | Assam | Kamrup | Noonmati | Birkuch | | | | | | ✓ | | | | | | | |
| CL14 | Assam | Kamrup | Chandarpur | Bonda | | | | | | ✓ | | | | | | | |
| CL15 | Gujarat | Patan | Chanaswan | Brahmanwada | ✓ | | | | | | | | | | | | |
| CL15 | Gujarat | Patan | Chanaswan | Borsum | ✓ | | | | | | | | | | | | |
| CL15 | Gujarat | Patan | Chanaswan | Bhatsar | ✓ | | | | | | | | | | | | |

WAR for Water

| Clusters | State | District | Tehsil/Taluka | Village | Fluoride | Iron | Salt | QD | Silicon | LPCA | Industrial waste | Arsenic | Calcium | Sulphur | BC | CTMS | SCFS |
|----------|----------------|----------|---------------|----------------------|----------|------|------|----|---------|------|-----------------------------|---------|---------|---------|----|------|------|
| CL16 | Gujarat | Mehsana | Visnagar | Paldi | | | | | | | | | | | | | |
| CL16 | Gujarat | Mehsana | Visnagar | Hasanpur | ✓ | | | | | | | | | | | | |
| CL16 | Gujarat | Mehsana | Visnagar | Gunja | ✓ | | | | | | | | | | | | |
| CL17 | Madhya Pradesh | Seoni | Keolari | Bibhari | ✓ | | | | | | | | | | | | |
| CL17 | Madhya Pradesh | Seoni | Keolari | Ghoorwada | ✓ | | | | | | | | | | | | |
| CL17 | Madhya Pradesh | Seoni | Keolari | Dutera | ✓ | | | | | | water level down in summers | | | | | | |
| CL17 | Madhya Pradesh | Seoni | Keolari | Sarekha | ✓ | | | | | | | | | | | | |
| CL17 | Madhya Pradesh | Seoni | Keolari | Sakri | ✓ | | | | | | | | | | | | |
| CL17 | Madhya Pradesh | Seoni | Keolari | Aarandia | ✓ | | | | | | | | | | | | |
| CL18 | Punjab | Muktsar | Malot | Killian Wali Mandi | | | ✓ | | | | | | | | | | |
| CL18 | Punjab | Muktsar | Malot | Killian Wali Village | | | ✓ | | | | | | | | | | |
| CL19 | Punjab | Muktsar | Malot | Warning khera | ✓ | | | ✓ | | | | | | | | | |
| CL19 | Punjab | Muktsar | Malot | Channu | ✓ | ✓ | | ✓ | | | | | | | | | |

WAR for Water

| Clusters | State | District | Tehsil/Taluka | Village | Fluoride | Iron | Salt | QD | Silicon | LPCA | Industrial waste | Arsenic | Calcium | Sulphur | BC | CTMS | SCFS |
|----------|--------------|-------------|---------------|-----------------|----------|------|------|----|---------|------|------------------|---------|---------|---------|----|------|------|
| CL19 | Punjab | Muktsar | Malot | Chak Medu Khera | ✓ | | | ✓ | | | | | | | | | |
| CL20 | Chhattisgarh | Jashpur | Jashpur | Gidha | | ✓ | | | | | | | | | | | |
| CL20 | Chhattisgarh | Jashpur | Jashpur | Sonkyari | | ✓ | | | | | | | | | | | |
| CL20 | Chhattisgarh | Jashpur | Jashpur | Andharjhar | | ✓ | | | | | | | | | | | |
| CL20 | Chhattisgarh | Jashpur | Jashpur | Talasili | | ✓ | ✓ | | | | | | | | | | |
| CL20 | Chhattisgarh | Jashpur | Jashpur | Aastha | | ✓ | | | | | | | | | | | |
| CL20 | Chhattisgarh | Jashpur | Jashpur | Manora | | ✓ | | | | | | | | | | | |
| CL20 | Chhattisgarh | Jashpur | Jashpur | Madhva | | ✓ | | | | | | | | | | | |
| CL21 | Manipur | Bishnupur | Moirang | Moirang | | | | | | | | | | | ✓ | ✓ | |
| CL22 | Manipur | Imphal west | Lamsang | Sekmai | | | | | | ✓ | | | | | | | ✓ |
| CL23 | Manipur | Thoubal | Kakching | Kakching | | | | | | | | | | | ✓ | ✓ | |
| CL24 | Rajasthan | Sanganer | Sanganer | Manpura Nagalai | ✓ | | ✓ | | | | | | | | | | ✓ |
| CL24 | Rajasthan | Sanganer | Sanganer | Purushottampura | ✓ | | | | | ✓ | | | | | | | ✓ |
| CL24 | Rajasthan | Sanganer | Sanganer | Suraj pura | ✓ | | | | | ✓ | | | | | | | ✓ |
| CL24 | Rajasthan | Sanganer | Sanganer | Dayalpura | ✓ | | ✓ | | | ✓ | | | | | | | ✓ |

WAR for Water

| Clust ers | State | District | Tehsil/Ta luka | Village | Fluo ride | Iron | Salt | QD | Silic on | LPC A | Indu stria l wast e | Arse nic | Calci um | Sulp hur | BC | CTM S | SCF S |
|--------------|-----------------|------------------|-------------------|-------------------|--------------|------|------|----|-------------|----------|---------------------------------|-------------|-------------|-------------|----|----------|----------|
| CL24 | Rajasthan | Sanganer | Sanganer | Bhatawala | ✓ | | | | | ✓ | | | | | | ✓ | |
| CL24 | Rajasthan | Sanganer | Sanganer | Gavar jatan | ✓ | | | | | | | | | | | ✓ | |
| CL24 | Rajasthan | Sanganer | Sanganer | Shosinghp ura | ✓ | | ✓ | | | ✓ | | | | | | ✓ | |
| CL24 | Rajasthan | Sanganer | Sanganer | Kalawala | ✓ | | ✓ | | | ✓ | | | | | | ✓ | |
| CL24 | Rajasthan | Sanganer | Sanganer | Gavar Brahmana | ✓ | | | | | | | | | | | ✓ | |
| CL25 | Rajasthan | Sanganer | Sanganer | Watika | ✓ | | ✓ | | | ✓ | | | | | | ✓ | |
| CL26 | Karnataka | Gulbarga | Yadgir | Yelhari | | | | | | | | | | | | ✓ | |
| CL27 | Assam | Jorhat | Titbor | Titbor | | ✓ | | | | | | ✓ | | | | | |
| CL28 | Haryana | Mohinderg arh | Mahenderg arh | Khudana | ✓ | | | ✓ | | ✓ | | | | | | | |
| CL28 | Haryana | Mohinderg arh | Mahenderg arh | Garhi | ✓ | | | ✓ | | ✓ | | | ✓ | | | | |
| CL29 | Maharasht ra | Ratnagiri | Chiplun | Aakale | | | | | | ✓ | | | | | | | |
| CL29 | Maharasht ra | Ratnagiri | Chiplun | Tivare | | | | | | ✓ | | | | | | | |
| CL29 | Maharasht ra | Ratnagiri | Chiplun | Kddavad | | | | | | ✓ | | | | | | | |
| CL29 | Maharasht ra | Ratnagiri | Chiplun | Dhamnavn e | | | | | | ✓ | | | | | | | |
| CL29 | Maharasht ra | Ratnagiri | Chiplun | Kherdi | | | | | | | ✓ | | | | | | |

WAR for Water

| Clusters | State | District | Tehsil/Taluka | Village | Fluoride | Iron | Salt | QD | Silicon | LPCA | Industrial waste | Arsenic | Calcium | Sulphur | BC | CTMS | SCFS |
|----------|-------------|---------------|---------------|------------------|----------|------|------|----|---------|------|------------------|---------|---------|---------|----|------|------|
| CL30 | UP | Jhansi | Jhansi | Raksa | | | | | | ✓ | | | | | | | |
| CL30 | UP | Jhansi | Jhansi | Ghisoli | | | | | | ✓ | | | | | ✓ | | |
| CL31 | Nagaland | Wokha | - | Lakhuti | | | | | | ✓ | | | | | | | |
| CL31 | Nagaland | Wokha | | Yonchwcho | | | | | | ✓ | | | | | | | |
| CL31 | Nagaland | Wokha | | Pangti | | | | | | ✓ | | | | | | | |
| CL32 | Tamil Nadu | Sivagangai | Thiruppathur | Thiruppathur | | | ✓ | | | ✓ | | | | | | | |
| CL33 | Tripura | North Tripura | Jampui hills | Lamgthireck | | | | | | ✓ | | | | | | | |
| CL33 | Tripura | North Tripura | Jampui hills | Tuikrain Para | | | | | | ✓ | | | | | | | |
| CL33 | Tripura | North Tripura | Jampui hills | Chhinskaning | | | | | | ✓ | | | | | | | |
| CL33 | Tripura | North Tripura | Jampui hills | Hmomplui | | | | | | ✓ | | | | | | | |
| CL33 | Tripura | North Tripura | Jampui hills | Sabul | | | | | | ✓ | | | | | | | |
| CL33 | Tripura | North Tripura | Jampui hills | Tlanasana | | | | | | ✓ | | | | | | | |
| CL33 | Tripura | North Tripura | Jampui hills | Vanahmun | | | | | | ✓ | | | | | | | |
| CL34 | Kerala | Kasragod | Kasragod | Delampady, Adour | | | | | | | | | | ✓ | | | |
| CL35 | Maharashtra | Sangli | Shirala | Natholi | | | | | | | | | | | | | |

WAR for Water

| Clusters | State | District | Tehsil/Taluka | Village | Fluoride | Iron | Salt | QD | Silicon | LPCA | Industrial waste | Arsenic | Calcium | Sulphur | BC | CTMS | SCFS |
|----------|-------------------|-----------------|----------------|-------------|----------|------|------|----|---------|------|-----------------------------|---------|---------|---------|----|------|------|
| CL35 | Maharashtra | Sangli | Shirala | Kande | | | | | | | | | | | | | |
| CL35 | Maharashtra | Sangli | Shirala | Fakirvadi | | | | | | | ✓ | | | | | | |
| CL35 | Maharashtra | Sangli | Shirala | Mangle | | | | | | | ✓ | | | | | | |
| CL35 | Maharashtra | Sangli | Shirala | Chikhali | | | | | | | | | | | | | |
| CL36 | Arunachal Pradesh | Papumapara | Naharlagun | Naharlagun | | ✓ | | ✓ | | | | | | | | | |
| CL37 | Haryana | Jajjar | Beri | Dighal | ✓ | | ✓ | ✓ | | | | | | | | | |
| CL38 | Meghalaya | Est. Khasi Hill | Shella Bhola | Cherapunji | | | | | | ✓ | | | | | | | ✓ |
| CL39 | West Bengal | Darjeeling | Sukhiya Pokhri | Seyok | | | | | | ✓ | | | | | | | ✓ |
| CL39 | West Bengal | Darjeeling | Sukhiya Pokhri | Chamong | | | | | | ✓ | | | | | | | ✓ |
| CL39 | West Bengal | Darjeeling | Sukma Pokri | Molanty | | | | | | ✓ | | | | | | | ✓ |
| CL39 | West Bengal | Darjeeling | Sukhiya Pokhri | Gopal Dhara | | | | | | ✓ | | | | | | | ✓ |
| CL40 | Gujarat | Sabar Kantha | Meghraj | Mudshi | | | | | | | water level down in summers | | | | | | |
| CL40 | Gujarat | Sabar Kantha | Meghraj | Bodewada | ✓ | | ✓ | | | | | | | | | | |

WAR for Water

| Clusters | State | District | Tehsil/Taluka | Village | Fluoride | Iron | Salt | QD | Silicon | LPCA | Industrial waste | Arsenic | Calcium | Sulphur | BC | CTMS | SCFS |
|----------|----------------|--------------|---------------|-----------------|----------|------|------|----|---------|------|-----------------------------|---------|---------|---------|----|------|------|
| CL40 | Gujarat | Sabar Kantha | Meghraj | Ramgadi | | | ✓ | | | | water level down in summers | | | | | | |
| CL41 | Gujarat | Sabar Kantha | Malpur | Halodar | ✓ | | ✓ | | | | | | | | | | |
| CL41 | Gujarat | Sabar Kantha | Malpur | Ramboda | | | ✓ | | | | | | | | | | |
| CL42 | Gujarat | Sabar Kantha | Bhiloda | Mota Kanthariya | | | | | | | water level down in summers | | | | | | |
| CL42 | Gujarat | Sabar Kantha | Bhiloda | Ramara | | | | | | | water level down in summers | | | | | | |
| CL43 | Punjab | Bhatinda | Talwandi | Giaana | | | ✓ | | | | | | | | | | |
| CL43 | Punjab | Bhatinda | Talwandi | Malkanaa | | | ✓ | | | | | | | | | | |
| CL43 | Punjab | Bhatinda | Talwandi | Jajjal | | | ✓ | | | | | | | | ✓ | | |
| CL44 | Andhra Pradesh | Srikikulam | Sarubujjili | Kavity | ✓ | | | | | | | | | | | | |

WAR for Water

| Clusters | State | District | Tehsil/Taluka | Village | Fluoride | Iron | Salt | QD | Silicon | LPCA | Industrial waste | Arsenic | Calcium | Sulphur | BC | CTMS | SCFS |
|----------|----------------|-------------|------------------|--------------|----------|------|------|----|---------|------|------------------|---------|---------|---------|----|------|------|
| CL45 | Andhra Pradesh | Prakasam | Cheemakurthy | P. Naidupelm | ✓ | | | | ✓ | | | | | | | | |
| CL45 | Andhra Pradesh | Prakasam | Podili | Mailavaram | ✓ | | | | | | | | | | | | |
| CL45 | Andhra Pradesh | Prakasam | Santhanuthlapadu | K V Palem | ✓ | | | | | | | | | | | | |
| CL45 | Andhra Pradesh | Prakasam | Cheemakurthy | Yeragudipadu | ✓ | | | | | | | | | | | | |
| CL45 | Andhra Pradesh | Prakasam | Cheemakurthy | Chemillemuri | ✓ | | | | | | | | | | | | |
| CL45 | Andhra Pradesh | Prakasam | Veligandla | Reddy Nagar | ✓ | | | | | | | | | | | | |
| CL45 | Andhra Pradesh | Prakasam | Cheemakurthy | Pullikonda | ✓ | | | | | | | | | | | | |
| CL46 | Maharashtra | Thane | Palghar | Kelwa | | | ✓ | | | | | | | | | | |
| CL46 | Maharashtra | Thane | Palghar | Mahim | | | | | | | | | | | | | |
| CL47 | West Bengal | 24 Praganas | Goshaba | Biraj Nagar | | | ✓ | | | | | | | | | | |
| CL47 | West Bengal | 24 Praganas | Goshaba | Bijoy Nagar | | | ✓ | | | ✓ | | | | | | | |
| CL48 | Rajasthan | Jhunjhunu | Jhunjhunu | Pilani city | | | ✓ | | | | | | | | | | |
| CL49 | Uttarakhand | Bageshwar | Bageshwar | Bageshwar | | | | | | ✓ | | | | | | | |

WAR for Water

Chapter 5 – Decision Support

One of the guiding principles factored in has been to adopt a technology solution for each of the major water challenges. Accordingly it has been desired to take in at least 1 site per water challenge (though the list becomes bigger than 10)

Where there is a unique location for the unique water challenge, that location gets finalised in any case.

Where there are multiple location options in different states, a roughly equal regional / geographical representation has been desired so that the different states can get roughly equal participation from the pilot projects.

This table is presented below:

Table 5.1 LOCATIONS PERTAINING TO EACH WATER CHALLENGE

| States | AESS | BC | CTF | CTI | CTMS | GC | LPC | MRW | NOW | QD | SCFS | SR | SS | SWI | WWM | Grand Total |
|-------------------|------|----|-----|-----|------|----|-----|-----|-----|----|------|----|----|-----|-----|-------------|
| Andhra Pradesh | 1 | | | | | | | | | | | | 1 | | | 2 |
| Arunachal Pradesh | | | | | | | | | | 1 | | | | | | 1 |
| Assam | | | | | | 1 | | | | | | | | | | 1 |
| Chhatisgarh | | | | 1 | | | | | | | | | | | | 1 |
| Gujarat | | | | | | | | | | | | 1 | | | | 1 |
| Haryana | | | | | | | 1 | | | | | | | | | 1 |
| Kerela | | 1 | | | | | | 1 | | | | | | | | 2 |
| Maharashtra | | | | | | | | | 1 | | | | | | | 1 |
| Manipur | | | | | 1 | | | | | | | | | | | 1 |
| Meghalya | | | | | | | | | | | 1 | | | | | 1 |
| Punjab | | | 1 | | | | | | | | | | | | | 1 |
| Rajasthan | 1 | | | | | | | | | | | | | | 1 | 2 |
| West Bangal | | | | | | | | | | | | | | 1 | | 1 |
| Grand Total | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 16 |

WAR for Water

Site Fixation within the state

Within the state itself there are in many cases multiple locations for the same problem. In that case the decision algorithm factors following in the decision making with the following rationale. Finally of course there is a judgement based on the relative assessment.

| Levels | Factor | Decision | Rationale |
|----------------|-----------------------------|--|--|
| Level 1 | Drinking water demand | Prefer lower | Since the pilot plants are addressing a theoretical 10000 population and later technology solutions for bigger capacity would be deployed – therefore in the pilot stage, we prefer to have a lower drinking water demand which is in direct context of the population |
| Level 2 | Water Source | Prefer location where natural resources are higher | Where natural resources exist, they are preferred over man made resources to bring about minimum environmental damage on one end and also to ensure water supply to the pilot plant |
| Level 3 | Higher Willingness | Prefer location with higher willingness | A location with higher number of people stating their willingness to pay would be preferred as it contributes to the economic viability and barriers themselves being lower |
| Level 4 | Presence of RWS/ARWS scheme | Prefer location with scheme | The social dynamics would hopefully have been addressed in the RWS scheme , hence a location where the scheme is running well would be preferred |
| Level 5 | Water Problem Multicity | Prefer multiple problems | A technology solution works best in an ideal state in laboratory conditions – which is not the purpose in this case – hence the problem multiplicity is preferred. |

WAR for Water

Based on the above comparisons, the evaluation of alternate locations within the state is given below:

Table 5. 2 - Evaluation of locations within a state

| Contamination | State | Distt. | Tehsil | Population | Villages within the cluster | Natural Resources | Community resources | Water Problem-Multiplicity | RWS/ARWS | Willingness | Final Selection |
|---------------|----------------|----------------|---|------------|-----------------------------|-------------------|---------------------|----------------------------|----------|-------------|-----------------|
| AESS | Andhra Pradesh | Nellore | Nallore (Bhujbhuj) | 14750 | 1 | √ | | √ | Yes | 60% | √ |
| | | Nellore | Nellore (Kothur) | 20000 | 1 | | √ | √ | Yes | 60% | |
| | Rajasthan | Nagaur | Ladnun | 9000 | 1 | √ | √ | √ | Yes | 100% | √ |
| | | Sawai Madhopur | Bamanvas (Dabur,Sitor,Sitapura) | 1054 | 3 | | | √ | Yes | 80% | |
| | | Sawai madhopur | Bamanvas (Bamanbaroda ,Piplai) | 13000 | 2 | | | | Yes | 80% | |
| | | Churu | Ratanhgarh | 9300 | 4 | | | √ | Yes | 100% | |
| BC | Kerela | Ernakulam | Kanaianur | 15385 | 1 | | | | Yes | 70% | |
| | | Alapuzha | Kuttanadu | 26000 | 1 | √ | | √ | Yes | 70% | √ |
| CTF | Punjab | Muktsar | Malot (killian wali Mandi,Killian wali Village) | 1130 | 2 | | | | Yes | 90% | √ |
| | | Muktsar | Malot (channu, warringkhera, Chakmadhukhera) | 14873 | 3 | √ | √ | √ | Yes | 70% | |
| CTI | Chhatisgarh | Jashpur | Jashpur | 11860 | 7 | | | | | 37% | √ |
| CTMS | Manipur | Bishnupur | Moirang | 31256 | 1 | | | | | 100% | |

WAR for Water

| Contamination | State | Distt. | Tehsil | Population | Villages within the cluster | Natural Resources | Community resources | Water Problem-Multiplicity | RWS/ARWS | Willingness | Final Selection |
|---------------|-------------------|-----------------|--------------|------------|-----------------------------|-------------------|---------------------|----------------------------|----------|-------------|-----------------|
| | | Imphal west | Lamsang | 40000 | 1 | | | | Yes | 0% | |
| | | Thoubal | Kakchang | 28724 | 1 | √ | √ | √ | | 100% | √ |
| GC | Assam | Jorhat | Titbor | 25000 | 1 | | | | Yes | 100% | √ |
| LPC | Haryana | Mohindergarh | Mahendergarh | 11000 | 2 | √ | | √ | Yes | 100% | √ |
| MRW | Kerela | Kasragod | Kasragod | 32687 | 1 | √ | √ | | | 70% | √ |
| NOW | Maharashtra | sangli | Shirala | 19426 | 5 | | √ | | | 38% | √ |
| QD | Arunachal Pradesh | Papumapara | Naharlagun | 40000 | 1 | | | | Yes | 40% | √ |
| SCFS | Meghalya | Est. Khasi Hill | Shella Bhola | 10000 | 1 | | | | Yes | 100% | √ |
| SR | Gujarat | Sabar Kantha | Meghraj | 12907 | 3 | √ | | | Yes | 17% | |
| | | Sabar Kantha | Malpur | 10000 | 2 | √ | √ | | | 45% | √ |
| | | Sabar Kantha | Bhiloda | 12000 | 2 | √ | | | | 25% | |
| SS | Andhra Pradesh | Srikulam | Sarubujjili | 11113 | 1 | √ | | √ | Yes | 100% | √ |
| | | Prakasam | Cheemakurthy | 10717 | 7 | √ | | √ | Yes | 51% | |
| SWI | West Bangal | 24 Paraganas | Goshaba | 12600 | 2 | √ | | | Yes | 30% | √ |
| WWM | Rajasthan | Jhunjhunu | Jhunjhunu | 34091 | 1 | | | | Yes | | √ |

WAR for Water

The above table shows a problem wise cluster classification segregated by different colour codes. The cluster selection within a common water challenge has been prioritised according to the said criteria and has been marked with a Tick (✓). The final judgement is based on the criteria for selection as discussed above.

WAR for Water

On the basis of the above evaluation, the final selection is as below:

Table 5.3 – Short listed clusters

| State | Contaminati on | Distt. | Tehsil | Village 1 | Village 2 | Village 3 | Village 4 | Village 5 | Village 6 | Village 7 |
|--------------------------|-------------------|-----------------|--------------|--------------------|----------------------|--------------|--------------|--------------|--------------|--------------|
| Andhra Pradesh | AESS | Nellore | Nellore | Bhujbuj | | | | | | |
| Arunachal Pradesh | QD | Papumapara | Naharlagun | Naharlagun | | | | | | |
| Assam | GC | Jorhat | Titbor | | | | | | | |
| Chhatisgarh | CTI | Jashpur | Jashpur | Gidha | Sonkyari | Andharjhar | Talasili | Aastha | Manora | Madhva |
| Gujarat | SR | Sabar Kantha | Meghraj | Halodar | Ramboda | | | | | |
| Haryana | LPC | Mohindergarh | Mahendergarh | Garhi | Khudana | | | | | |
| Kerela | BC | Alapuzha | Kuttanadu | Kainekeri | | | | | | |
| Maharashtra | NOW | Sangli | Shirala | Natholi | Kande | Fakirvadi | Mangle | Chikhali | | |
| Manipur | CTMS | Thoubal | Kackchang | Kackchang | | | | | | |
| Meghalya | SCFS | Est. Khasi Hill | Shella Bhola | Cherapunji | | | | | | |
| Punjab | CTF | Muktsar | Malot | Killian wali mandi | killian wali village | | | | | |
| Rajasthan | WWM | Pilani | Pilani | | | | | | | |
| West Bangal | SWI | 24 Paraganas | Goshaba | Biraj Nager | Bijoy Nager | | | | | |
| Kerela | MRW | Kasragod | Kasragod | Delampady, Adour | | | | | | |
| Andhra Pradesh | SS | Srikikulam | Sarubujjili | Kavity | | | | | | |

Annexure

WAR for Water

Rainfall Data – District wise

| | | <i>(In mm)</i> | | | | | |
|----------------|------------------|----------------|-------|-------|-------|-------|-------|
| State | District | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
| Andhra Pradesh | Nellore | 1163 | 1551 | 862.7 | 1286 | 1102 | 61.9 |
| Andhra Pradesh | Prakasam | 757.8 | 958.8 | 869 | 899.8 | 937.7 | 100 |
| Assam | Jorhat | 2112 | 1616 | 1512 | 1828 | 1778 | 621.1 |
| Assam | Kamrup | 1872 | 1737 | 1189 | 1889 | 1600 | 564.1 |
| Chhattisgarh | Jashpur | 1011 | 1395 | 836.3 | 1234 | 1412 | 11.4 |
| Gujarat | Patan | 502.7 | 790.5 | 1044 | 849.5 | 573.3 | 7.5 |
| Gujarat | Sabarkantha | 724.8 | 1059 | 1702 | 1310 | 668.6 | 13 |
| Haryana | Jhajjar | 473.4 | 529.3 | 371.1 | 301.2 | 612.3 | 27.6 |
| Haryana | Mahendragarh | 264.4 | 323.1 | 170.9 | 455.4 | 827.5 | 72.6 |
| Karnataka | Gulbarga | 652.1 | 911.3 | 527.9 | 764.2 | 744 | 144.4 |
| Kerela | Alappuzha | 2797 | 2599 | 3021 | 3107 | 2585 | 999.5 |
| Kerela | Kasargode | 3147 | 2521 | 3445 | 3856 | 3320 | 745 |
| Madhya Pradesh | Raisen | 916.9 | 1238 | 1143 | 807.9 | 931.6 | 79.6 |
| Madhya Pradesh | Seoni | 753.8 | 1449 | 1323 | 966.7 | 942.9 | 61.5 |
| Maharashtra | Akola | 513.4 | 889.8 | 1195 | 915.2 | 593.4 | 132.5 |
| Maharashtra | Mumbai | 2227 | 2770 | 2806 | 2509 | 2533 | 242.3 |
| Maharashtra | Ratnagiri | 3103 | 3634 | 3699 | 4076 | 2991 | 317.4 |
| Maharashtra | Sangli | 620.9 | 1066 | 875.2 | 775.2 | 726 | 95.5 |
| Maharashtra | Thane | 2930 | 3563 | 3139 | 2595 | 2781 | 131.1 |
| Manipur | Imphal | 1339 | 1231 | 846.2 | 1393 | 1063 | 350.4 |
| Meghalaya | East Khasi Hills | 9935 | 6240 | 4601 | 8589 | 6885 | 1785 |

WAR for Water

| | | | | | | | |
|----------------------|-------------------|-------|-------|-------|-------|-------|-------|
| Nagaland | Kohima | 1865 | 1570 | 1360 | 1975 | 1876 | 374.3 |
| Punjab | Bhatinda | 333 | 553.8 | 317.8 | 253.5 | 527 | 58.7 |
| Punjab | Muktsar | 169.1 | 262.6 | 344.4 | 439.7 | 382.6 | 79.4 |
| Rajasthan | Churu | 245.7 | 360.2 | 243.6 | 335 | 444.5 | 81.4 |
| Rajasthan | Jaipur | 544.3 | 585.5 | 309.5 | 420.1 | 553.6 | 38.5 |
| Rajasthan | Jhunjhunu | 320.7 | 510.5 | 341.7 | 399.3 | 484.3 | 51.8 |
| Rajasthan | Nagaur | 301.3 | 354.1 | 265.2 | 261 | 383.2 | 30.5 |
| Rajasthan | Sawai Madhopur | 608.7 | 559.1 | 426.2 | 463.4 | 744.2 | 32.5 |
| Tamil Nadu | Sivaganga | 1104 | 1289 | 965.9 | 886.6 | 1177 | 143.6 |
| Tamil Nadu | Virudunagar | 643.5 | 993.7 | 982.5 | 795.2 | 1070 | 128.3 |
| Tripura | North Tripura | 2933 | 2765 | 2255 | 2754 | 1905 | 1029 |
| Uttar Pradesh | Jhansi | 693.3 | 619 | 388.8 | 352.8 | 1170 | 32.3 |
| Uttaranchal | Almora | 1317 | 1192 | 905.7 | 1273 | 670.5 | 108.3 |
| West Bengal | Darjeeling | 2820 | 2230 | 2757 | 3285 | 3316 | 908.7 |
| West Bengal | North 24 Parganas | 1590 | 1595 | 1585 | 1749 | 1485 | 379 |
| West Bengal | Purulia | 1135 | 975.5 | 1318 | 1784 | 1383 | 189.9 |
| West Bengal | South 24 Parganas | 1863 | 2148 | 1879 | 2253 | 1623 | 340.1 |

WAR for Water

Population wise ranking of clusters

| Cluster | State | District | Population | Rank |
|---------|----------------|-----------------|------------|------|
| CL49 | Uttaranchal | Bageshwar | 7803 | 1 |
| CL5 | Rajasthan | Nagaur | 9,000 | 2 |
| CL8 | Rajasthan | Churu | 9,300 | 3 |
| CL38 | Meghalya | Est. Khasi Hill | 10,000 | 4 |
| CL41 | Gujarat | Sabar Kantha | 10,000 | 5 |
| CL31 | Nagaland | Wokha | 10,170 | 6 |
| CL17 | Madhya Pardesh | Seoni | 10,297 | 7 |
| CL15 | Gujarat | Patan | 10,458 | 8 |
| CL26 | Karnataka | Gulbarga | 10,480 | 9 |
| CL6 | Rajasthan | Sawai Madhopur | 10,540 | 10 |
| CL11 | Madhya Pardesh | Raisen | 10,600 | 11 |
| CL45 | Andhra Pradesh | Prakasam | 10,717 | 12 |
| CL28 | Haryana | Mohindergarh | 11,000 | 13 |
| CL39 | West Bangal | Darjaling | 11,080 | 14 |
| CL44 | Andhra Pradesh | Srikikulam | 11,113 | 15 |
| CL18 | Punjab | Muktsar | 11,300 | 16 |
| CL20 | Chhatisgarh | Jashpur | 11,860 | 17 |
| CL4 | Rajasthan | Nagaur | 12,000 | 18 |
| CL10 | West Bangal | Purulia | 12,000 | 19 |
| CL42 | Gujarat | Sabar Kantha | 12,000 | 20 |
| CL43 | Punjab | Bhatinda | 12,280 | 21 |
| CL24 | Rajasthan | Sanganer | 12,430 | 22 |
| CL14 | Assam | Kamrup | 12,500 | 23 |
| CL16 | Gujarat | Mehsana | 12,508 | 24 |
| CL47 | West Bangal | 24 Paraganas | 12,600 | 25 |

WAR for Water

| | | | | |
|-------------|-------------------|----------------|--------|----|
| CL40 | Gujarat | Sabar Kantha | 12,907 | 26 |
| CL7 | Rajasthan | Sawai Madhopur | 13,000 | 27 |
| CL33 | Tripura | North Tripura | 13,150 | 28 |
| CL30 | UP | Jhansi | 14,700 | 29 |
| CL1 | Andhra Pradesh | Nellore | 14,750 | 30 |
| CL19 | Punjab | Muktsar | 14,873 | 31 |
| CL12 | Kerela | Ernakulam | 15,385 | 32 |
| CL25 | Rajasthan | Sanganer | 16,000 | 33 |
| CL29 | Maharashtra | Ratnagiri | 17,526 | 34 |
| CL9 | Tamil Nadu | Virudhunagar | 17,990 | 35 |
| CL35 | Maharashtra | sangli | 19,426 | 36 |
| CL2 | Andhra Pradesh | Nellore | 20,000 | 37 |
| CL3 | Punjab | Muktsar | 20,000 | 38 |
| CL46 | Maharashtra | Thane | 22,450 | 39 |
| CL32 | Tamil Nadu | Sivagangai | 23,559 | 40 |
| CL27 | Assam | Jorhat | 25,000 | 41 |
| CL13 | Kerela | Alapuzha | 26,000 | 42 |
| CL23 | Manipur | Thoubal | 28,724 | 43 |
| CL21 | Manipur | Bishnupur | 31,256 | 44 |
| CL34 | Kerela | Kasragod | 32,687 | 45 |
| CL48 | Rajasthan | jhunjhunu | 34,091 | 46 |
| CL22 | Manipur | Imphal west | 40,000 | 47 |
| CL36 | Arunachal Pradesh | Papumapara | 40,000 | 48 |
| CL37 | Haryana | Jajjar | 40,000 | 49 |

WAR for Water

DCI Used

| | | |
|------------------------|-----------|-------------|
| For Office Use: | | |
| Date of survey: | Surveyor: | Supervisor: |

Respondent Profile

| | | | |
|---------------------------------|--|--|--|
| Person(s) Contacted: | | | |
| Position in village: | <input type="checkbox"/> Pradhan | <input type="checkbox"/> Head Master | <input type="checkbox"/> Village Officer |
| | <input type="checkbox"/> Teacher | <input type="checkbox"/> Member of Panchayat | <input type="checkbox"/> PHC's Doctor |
| | <input type="checkbox"/> Sarpanch/ Mukhiya | <input type="checkbox"/> Engineer | <input type="checkbox"/> Other _____ |
| Contact Number (with STD code): | | | |

Section A: Village Profile

| | | | |
|---------------------------------------|-----------------|-----------------------------|----------------------------|
| Geography | | | |
| Village: | Tehsil: | District: | State: |
| Nearest Town: | | Distance from Nearest Town: | |
| Area | | | |
| Total Village area: | <i>in acres</i> | Area under cultivation: | <i>in acres</i> |
| Residential area: | <i>in acres</i> | Waste land: | <i>in acres</i> |
| Housing details | | | |
| No. of houses: | Pucca houses: | Semi pucca houses: | Houses with thatched roof: |
| No. of hours of power supply per day: | | <i>in hours</i> | |
| Cropping Pattern | | | |
| Major crops in village: | | | |

Section B: Village Population

B1. Please provide the detail of population & livestock in your village:

| B1 (a). POPULATION | |
|--------------------|------|
| Total: | Nos. |
| Gender | |
| Male | |
| Female | |
| Category | |
| General | |
| SC | |
| ST | |

| B1 (b). LIVESTOCK | |
|---------------------------|------|
| Animal | Nos. |
| Cattle (Cow/ Buffalo etc) | |
| Camel | |
| Dog | |
| Goat | |
| Horse/ Donkey | |
| Elephant | |
| Sheep | |

WAR for Water

OBC

Pig

B2. What is the average family size in your village? _____ person/family

Section C: Demographic Profile

C1. Please provide the details of primary occupation of residents in your village:

| Occupation | % |
|--------------------|-------------|
| Cultivator | |
| Agriculture labour | |
| Household industry | |
| Workers | |
| Other | |
| TOTAL | 100% |

C2. Please provide the details of educational facility in your village:

| School/ College | Government | | Private | |
|--|------------|-----------------|---------|-----------------|
| | Nos. | No. of students | Nos. | No. of students |
| Aanganwadi/ Nursery School (below class 1) | | | | |
| Primary School (class 1 to 5) | | | | |
| Secondary School (class 6 to 10) | | | | |
| Higher Secondary School (above class 10) | | | | |

C3. Please provide the details of any skill/capacity building activities practised in your village _____

C4. Please provide the details of health care facility in the village:

| | | |
|-------------------------------|------------------------|-------------------------------|
| No. of PHCs: | No. of Doctors in PHC: | No. of Nurses in PHC: |
| Location of nearest hospital: | | Distance to nearest hospital: |

Section D: Industrialisation in village

| | | |
|--|---|--|
| D1. No. of industries within village | : | |
| D2. Nature of industry | : | |
| D3. Total number of people employed | : | |
| D4. No. of people employed from your village | : | |
| D5. Source of water for these industries | : | |

WAR for Water

Section E: Water- Demand

E1. Please provide the details of your village's current daily water requirement w.r.t. following:

| Use | Current (unit) | |
|-------------------------------------|----------------|--|
| Drinking | | Average consumption per person per day |
| Irrigation (<i>crop specific</i>) | | Water used per hectare |
| Household | | Buckets per family per day |
| Livestock | | Average consumption per day |
| Industrial | | Average consumption |
| TOTAL | | |

Section F: Water- Supply

F1. Please provide us with the details number of following water sources in your village, their usage & estimated capacity/ area.

For usage: use **D** for drinking, **IRR** for Irrigation, **HH** for Household, **LS** for Livestock, **IND** for Industrial and **OT** for Other.

| Source | Nos. | Other Details | Est. Volume | Usage |
|---|------|---|-------------|-------|
| Natural Resources | | | | |
| River(s) | | Name: _____ <input type="checkbox"/> Seasonal <input type="checkbox"/> Permanent | | |
| Canal | | Feeding river(s): | | |
| Pond | | <input type="checkbox"/> Seasonal <input type="checkbox"/> Permanent | | |
| Lake(s) | | Name: _____ <input type="checkbox"/> Seasonal <input type="checkbox"/> Permanent | | |
| Other _____ | | | | |
| Ground water | | | | |
| Wells | | | | |
| Hand pumps (public use) | | | | |
| Hand pumps (private use) | | | | |
| Electric pump (submersible) public use | | | | |
| Electric pump (submersible) private use | | | | |
| Other _____ | | | | |

F2. Is there any water harvesting scheme in your village? Yes No

If yes,

a. Please name _____

b. Who is the handling agency? _____

F3. Please describe the type of rainfall in village for last 2 years.

Excess (flood like situation)

Normal (sufficient for crop)

Scarce (drought)

WAR for Water

- F4. Is there any measurement mechanism deployed in your village to measure the rainfall? Yes No
 If yes, please mention _____
- F5. Does your village have any system for storing rain water? Yes No
 If yes, please mention _____
- F6. Is RWS/ARWS scheme drinking water is available in your village? Yes No
 If yes,
 a. Is it: Available free of cost Charged (Rs. _____/ unit)
 b. What is the capacity of overhead storage reservoir?
60,000Ltr 90,000Ltr 1,20,000Ltr 2,40,000Ltr

Section G: Water- Challenges & Coping Mechanism

G1. With respect to each of these areas, mention the main problems & your solutions for coping as per following:

| Related to | Problem Faced | Coping mechanism |
|------------------------|---------------|------------------|
| Availability & Sources | | |
| Contamination | | |
| Storage | | |
| Usage | | |
| Social Issues | | |
| Other | | |

G2. Are there any NGO/ SHG working in your village w.r.t. water's availability & quality? Yes No

| | |
|---|--|
| If yes, please mention their role w.r.t. following: | |
| Improved quality | |
| Education and awareness | |
| Renovation/augmentation of water sources | |
| Other _____ | |

G3. Please provide the no. of households with RWS/ ARWS scheme water connections _____

G4. Please provide the no. of stand posts in village _____

G5. How is raw water treated before distribution to households in your village? _____

WAR for Water

Section H: Willingness to Pay

H1. According to you, if purified drinking water is supplied to your village, will majority villagers be ready to pay for it? Yes (amount in Rs/Ltr _____) No (why? _____)

Section I: Relativity with Problem

I1. What sorts of problems do majority of villagers face in their daily routine life w.r.t. various water related challenges prevalent in the area?

I2. Following are typical water borne disease. Do any of them pose a threat in your village?

| | | |
|-------------|------------------------------|-----------------------------|
| Typhoid | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Cholera | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Jaundice | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Diarrhea | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Other _____ | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

I3. Is there any incidence of deaths due to above mentioned water borne disease in last 2 years? Yes No

If yes, please provide the details _____

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In a month how many patients visit PHC for the treatment of water borne diseases like Typhoid, Cholera, Jaundice & Diarrhea? _____

Section J: Villager's Willingness to pay

| Name | Age | Do you know that 80% of diseases are due to drinking unsafe drinking water and following unhygienic sanitation practices? | If purified drinking water is supplied to you at your home, which assures you of your family health, are you ready to pay for it? | If yes, amount per litre |
|------|-----|---|---|--------------------------|
| | | | | |
| | | | | |