

Government of India
Ministry of Rural Development
Department of Drinking Water and Sanitation
Drinking Water Security National Pilot Program

DRAFT

Terms of Reference for Support Organizations
To support Village/GP/Blocks to prepare and implement Drinking Water Security Plan

1. Background

a) To achieve drinking water security, a new approach is required

Rural water supply in India is in a challenging situation. Sector institutions have been effective in building infrastructure and most habitations in rural India are now covered with access to hand pumps or piped water supply systems. However, there are also high rates of slippage of hand pumps and piped schemes due to lack of ownership, poor O&M, sources going dry or lowering groundwater tables, sources becoming quality affected and increasing populations.

Competition for water use is also drastically increasing and water supply can no longer be addressed in isolation of uses for agriculture and industry. Whilst domestic water for drinking is accorded the first priority use in the National Water Policy, it is actually a very small consumer of water resources. Approximately 80 per cent of the total water resources withdrawn in India are utilized for agriculture. There is need to develop, with farmers, a system that safeguards the meager quantity required for drinking water.

To achieve drinking water security, a new approach is required. There is a need for a holistic and participatory planning approach, with clear guidance on institutional roles and responsibilities and financing to address issues of sustainability. Gram Panchayats and Village Water and Sanitation Committees need to prepare drinking water security plans which address source sustainability, water quality (both bacteriological and chemical), and operation and maintenance issues, as well as provisions for replacement and expansion. The overall approach is to prepare village wise water budgets, identify how much water is needed for drinking water security and put in place local mechanisms to ensure that the required water resources are ring fenced. In extreme cases the local resources need to be supplemented with bulk water. They cannot do this alone.

Block Resource Centers (BRCs) have a key role in facilitating technical support and training, and District Water and Sanitation Missions (DWSMs) must provide overall planning coordination including decisions about broader water resources, convergence of financing under different development programmes, and monitoring implementation and performance. Technical support is needed from PHED engineers and from local professionals who can provide services such as preventative maintenance of hand pumps, provision of spare parts and O&M of piped water supplies. Financing needs to be made available to address issues of sustainability through planning for immediate and longer term investments (physical and operational), annual budgeting and periodic review of village water security plans.

b) The GoI, through the Department of Drinking Water and Sanitation (DDWS), has already taken significant steps to meet these challenges.

The revised National Rural Drinking Water Programme (NRDWP) aims at “providing every rural person with adequate safe water for drinking, cooking and other domestic basic needs on a sustainable basis. This basic requirement should meet minimum water quality standards and be readily and conveniently accessible at all times and in all situations”.

NRDWP provides grants for construction of rainwater harvesting and groundwater recharge measures, developing new sources in water quality affected areas, and for operation and maintenance including minor repairs. NRDWP promotes conjunctive use of surface and groundwater, and actively supports convergence with other development programmes such as the National Rural Employment Guarantee Scheme, Backward Region Grant Funds and watershed development programmes. Support activities include provision of District and Sub-divisional water testing laboratories, GIS mapping linked to on-line MIS, and community involvement in groundwater and water quality monitoring.

GoI is fully committed to address the challenge of water security. While addressing a two-day international workshop in Delhi in May 2010, on achieving drinking water security in water stressed and quality affected areas, Union Rural Development Minister Dr. C P Joshi suggested that a system for metering of water supply and payment of tariff should be developed across the country as is done in case of electricity supply but "differential tariff" be considered for "vulnerable citizens". He further elaborated on different dimensions drinking water security and the need for 1) Identifying a Unit of management around which planning and management can be anchored – district, block or panchayat; 2) Addressing Rural to Urban transition and disparities – by setting minimum tariffs and standards for rural and urban areas; 3) addressing issues of agricultural power subsidies and energy component in drinking water to enable appropriate pricing and recovery; 4) promoting conjunctive storage in aquifers and rainwater harvesting systems, and 5) address both Demand and supply side management of water. He also suggested that “Panchayats should be fully empowered to decide allocation of water, available within their jurisdiction, for agriculture, industry and drinking in rural areas.”¹

As a follow up to the workshop, the Government of India has decided to launch a national pilot program in 11 blocks of the country to test and demonstrate the concept of Drinking Water Security Planning to address the various dimensions of water security. In order to do so, the selected States will contract Support Organizations.

c) The main goal of the Drinking Water Security National Pilot Program is to test the operationalization of the GOI new rural water supply strategy and learn from it in order to achieve national scale up.

The key objectives of the Drinking Water Security National Pilot Program are:

1. To demonstrate and refine the institutional and fiscal framework required to deliver drinking water security at scale under a national / state programme – the pilot would identify key functions and who is best placed to perform them, and review the funding components under NRDWP (such as sustainability, O&M, water quality, etc.) and other funds (13th FC, BRGF, NREGS, watershed development programmes, etc.), and whether there are gaps that impact on sustainability (such as replacement and expansion, etc.)
2. To gain experience in what is required to build capacity of Gram Panchayats and Village Water and Sanitation Committees – the pilot will prepare training modules linked to hands on

¹ Press release from news.outlookindia.com, June 5, 2010

exposure visits (such as TBS, APFAGMS, etc) for all aspects of village water security planning, block level facilitation and district planning coordination, and identify the mechanisms to deliver training and exposure at scale.

3. To demonstrate the process and content of village and block water security planning– this would include covering issues of; water budgeting, source sustainability, service improvement, (water quality, O&M, investments g and local water use regulation
4. To better understand the role and requirements of the Block Resource Centre as a facilitator and the District Water and Sanitation Mission as a planning coordinator – in particular some functions would be reviewed and recommendations made regarding how to institutionalise them, such as reviewing plans to make sure they meet policy objectives and are what the community wants, checking technical, financial and operational viability of plans, setting tariffs, allocations of financing, monitoring implementation and performance
5. To identify options to bring professional capacity into the sector to complement the existing role of the PHEDs – key issues include preventative maintenance of hand pumps, O&M of piped water supplies and water quality testing.
6. To help document and disseminate the lessons learned during the demonstration project in order to achieve national scale up

The States participating in the Drinking Water Security National Pilot Program are: 1) Andhra Pradesh - Anantpur district; 2). Gujarat- Mehsana district; 3). Haryana- Kaithal district; 4). Karnataka- Kolar district; 5). Punjab- Sangrur district; 6). Rajasthan- Bhilwara; Jhunjhunu and Jodhpur districts; 7). Tamil Nadu - Dharmapuri ; 8). Uttar Pradesh – Budaun district and 9) Madhya Pradesh.

d) Overall management of the Drinking Water Security National Pilot Program

The national pilot project will be managed by DDWS. A working group will be formed at the national level to provide expertise and review progress. It will be chaired by the Cabinet Minister/Secretary/Joint Secretary and comprises representatives from the following institutions: CGWB, ISRO, CAZRI, NIH, APFMAGS, TBS, Ministries of Water Resources, Agriculture, Power, Environment/CPCB, Planning Commission, World Bank, UNICEF, Water Aid and WSP-SA.

At the state level, the PHED / Panchayati raj departments will put together a senior team to guide and support the district and block teams.

At the district level the District Water and Sanitation Mission will provide the overall guidance and support to the block team and the GPs. The DWSM will also coordinate with the relevant departments to ensure timely technical expertise and also release of funds from different programs for the implementation.

At the block level the PHED office and Block Panchayat office will coordinate with the GPs and also supervise the functioning of the SO and/or the support team. The Block Panchayat office will also coordinate expertise and release of funds for the implementation.

2. Objective of the assignment of the Support Organization

The State of wishes to hire a Support Organization which can provide technical assistance to all Gram Panchayats in the Block of of the District of to prepare and implement Village, GP, and Block Drinking Water Security Plans to ensure safe, reliable, and sustainable water sources and systems.

The Support Organisations would handhold the Gram Panchayats and the committee/s formed for water use, the Block Resource Centres and District Water and Sanitation Missions to help them carry out their roles and responsibilities.

What Drinking Water Security Means?

Every rural person has adequate safe water for drinking, cooking and other domestic basic needs on a sustainable basis. Safe water should be readily and conveniently accessible at all times and in all situations

The surface and ground water resource is conserved, protected, enhanced and managed to provide sufficient quantity of water to meet demand.

The quality of drinking water matches acceptable standards.

The water supply service is managed efficiently and on a sustainable basis.

Drinking Water Security Planning would involve?

1. Measures for conservation, protection, enhancement and management of surface and ground water resources to provide sufficient quantity of drinking water to meet the demands of the rural communities
2. Mechanisms for measurement of water availability and supply (water budgeting)
3. Identification and designing of appropriate structures for rain water harvesting and ground water recharge for source sustainability
4. Identification of mechanisms for local self regulation, changes in agricultural practices and crop patterns, use of more efficient irrigation systems etc.
5. Design and implementation of a series of preventive measures at the basin, source, system and household level for ensuring the quality of drinking water supply with acceptable standards (water safety plans) ,
6. Developing and operationalising water quality testing facilities at appropriate levels in the field and
7. Plans for the efficient management of the water supply service, based on clear operating, maintenance and management procedures including clear O&M cost recovery policy and transparent arrangement for renewal, replacement and expansion of the source and/or the systems (operating and service improvement plans)

3. Methodology to be used by Support Organization

The planning approach to be used to achieve drinking water security is based on participatory bottom up village water security planning. All planning activities will be achieved by working with the rural community based on the local condition, issues and challenges. This affords greater flexibility to

States and districts to respond to their local situations – a mark of devolution as well as an opportunity to address rural water provision in a programmatic and holistic manner with potential long-term benefits in terms of sustainability and effectiveness of public investments. The unit of management will be the Block level Panchayat. In accordance, village water security plans will be prepared for all and with the villages/GPs to be consolidated at the Block level at a later stage.

Implementation will be through Village Water and Sanitation Committees (VWSCs) or Water Users Committees (WUCs) and GPs in coordination with the Block Resource Centres (BRCs) who would facilitate technical support and training and District Water and Sanitation Missions (DWSMs) who would provide planning coordination. Proposed software activities, equipment and infrastructure to achieve water security for the GPs of the pilot Block will be financed through different government schemes, including NRDWP.

SO will propose its own methodology, time table and resources to achieve the aimed objective, based on the key principles proposed in the present TOR.

4. Scope of Work for Support Organization

The SO's will have to carry out the following tasks in order to support Village/GP/Blocks to prepare and successfully implement Drinking Water Security Plans and achieve long term water security.

a) Community mobilization

The ways of mobilizing the community are:

- a. Social mobilization by ward meetings and separate women meetings
- b. Gram Sabha meetings and discussions
- c. Folk drama and street play on drinking water security
- d.
- e. Student and youth rallies in the village on issues of drinking water security
- f. Organizing special lectures or video shows on selected topics
- g. Resource mapping exercises using PRA tools
- h. Any other appropriate participatory tool

b) Initial benchmarking of all dimensions of water at local levels

At the beginning of the assignment, SO will gather all materials and data available, in particular data from CGWB and ISRO/NRSA and ministry of water resources on groundwater including nature of aquifers, and surface and analyse the same. This data and analysis will be shared with the GPs at the time of village water security planning and also be used in compiling Block water security planning.

Carry out a baseline survey of sources of water, groundwater levels, water service delivery, water quality, crop pattern and agricultural practices in each of the demonstration pilot Gram Panchayats/Villages. This diagnostic is to cover all dimension of water (water resource, water for agriculture, drinking water supply). It will constitute the starting point of the planning process. Further progress will be measured and monitored through a number of indicators against this baseline (see Table 1 List of basic Indicators of performance). – This is to be done in a participatory manner.

c) Improve water resources monitoring and protection and recharge measures:

Prepare a “Water budget”: in line with existing Government of India and State programmes, villages and Blocks would be guided in preparing a “water budget” taking into consideration the conjunctive availability and use of rain water, ground water and surface water sources.

Support the GP and it’s committees in exploring and developing options for innovative measures in ring fencing drinking water sources and increase storage capacity to deal with increasing seasonal variability in the availability of drinking water. Prepare for adaptation and mitigation measures against climate change induced variability, improve soil management, increase rainfall infiltration and reduce reliance on irrigation, improve irrigation scheduling and application techniques.

Support the GP and its committees in establishing appropriate water governance decisions and practices to make appropriate choices and decisions related to water availability and use. This is sought to be achieved through: strengthening local institutions, demystification of science and technology, capacity building of committees in technical data collection, analysis, and interpretation and apply the learning’s for improved water resources management.

d) Improve the drinking water supply system management:

Support the GP and its committee/s in reviewing and assessing the efficiency of the existing water supply systems to develop service improvement plans and implement the same. This includes:

1. developing appropriate service improvement plans to increase operational efficiency and ensure equity,
2. identifying options with budgets and O&M costs in consultation with the community,
3. detailing local institutional arrangements, roles and responsibilities of water supply service provider and GPs and soft issues such as norms for water use regulation, user tariffs, quality monitoring, and
4. Introducing bulk water metering and retail water metering where appropriate.

Provide additional training to the Gram Panchayat/VWSC in “managing the water supply system”, including the preparation of simple service agreements (contract for O&M) for those responsible for operating the water supply system, as well as the Gram Panchayat/VWSC’s obligations related to funding.

Prepare “Operating plans” and service improvement plans, including investment proposals for consideration by the Block/District for funding under NRDWP.

d) Ensure water quality:

Support the GPs and their committees in:

- preparing “water safety plans”, to prevent risks, eliminate existing hazards and ensure good quality water on the long run, and

- developing procedures for the verification of drinking water quality by sampling and analysis at a frequency determined initially by checking confidence in the effectiveness of the controls and later to take into account likely concerns due to seasonal or other factors.

f) Ensure accountability through regular and credible audit and reporting

Establish a procedure and a process of “audit and reporting”, including (i) the Gram Panchayat/VWSC reporting to the District/Block for purposes of planning coordination and management of funding, (ii) village social audit committees to verify user satisfaction, (iii) one Gram Panchayat auditing another Gram Panchayat on implementation of water security plans, and (iv) a separate department carrying out spot checks to verify results in terms of effective water security planning by villages and investment by Gram Panchayats/District.

The project would also establish the procedures for reporting on progress and performance to the block or district.

g) Build capacity of the staff in Block Resource Centres

Block Resource Centres are set up in the State, SOs will work with them to develop their capacity in such a way that they will be able to take over support responsibilities. BRCs will be under the administrative control and supervision of Block Panchayats.

h) Monitor water security planning preparation and implementation

SO will monitor all process and results indicators of the water security planning process for all GPs in the selected Blocks, including at least the indicators as presented in Annex 1. They will prepare annual reports on progress achieved per Block.

5. Description of the deliverables by Support Organization

SOs will be directly responsible for the following deliverables:

1. Organize orientation workshops for District, Block and GP representatives
2. Prepare an inception report 60 days after starting the work;
3. Prepare a baseline data report on village, GPs and Block within 3 months after starting the work
4. Mobilize communities and assist villages/GPs/Block to prepare and implement their drinking water security plans
5. Produce an annual and final report on progress made at Block level
6. Prepare training modules based on their experience

All reports would have to be sent to the hiring agency and to DDWS within a delay of 30 days.

6. Time, Qualifications and Experience required

The support organization will be hired for an initial period of two years. It is estimated that each Block have an average of 50-70 GPs.

The Support Organization must be able to demonstrate experience in the following kinds of training:

- Class room sessions by experts
- Hands on training in the field
- Exposure visits

The Support Organization must be able to demonstrate expertise and skills in the following areas:

- a. Ways of community mobilization
- b. Participatory planning approaches
- c. How to gather information on sources and systems
- d. How to prepare a water budget
- e. Water harvesting and groundwater recharge options
- f. How to make a water safety plan and test water quality
- g. Operation and maintenance
- h. Maintenance of accounts and financial procedures
- i. Preparing investment plans
- j. How to check and report on performance of the water supply

The SO team should comprise :

- A team leader with proven track record in managing projects of this nature for at least 10 years
- Hydrological expert to advice GPs on water budgeting, water conservation etc
- Engineering/ water supply management expert to advise GPs on appropriate service improvement plans and innovations
- Community mobilization and capacity building experts to build the capacities of local institutions and BRCs
- Documentation experts to document the process, outcomes and results.

For the entire team working knowledge and experience with respect to rural water and sanitation sector reforms is essential, including Swajaldhara and understanding of the new National Rural Drinking Water Programme.

SO will be supported by high level and short term technical assistance provided by the Water and Sanitation Program- South Asia (WSP-SA) based on specific needs and in accordance with DDWS.

Annex 1: Performance indicators. The satisfactory implementation of the Village Water Security Plan will be assessed against the following performance indicators:

	Baseline and Performance Indicator to be collected and monitored at village, GPs and Block level	2011	2012	2013	2014	2015
Water Resources Monitoring	Data on ground water table monitoring and annual water budget are available and information are used by farmers to make decision Number of sources of water use for drinking water (ground, surface, roof water sources) Ground water table level based on piezometer Supply/demand gap status and evolution Colour of the Block Ground Water Resource (white, gray, black)					
	Use of water budget ; Decisions taken on water budgeting exercise Water governance framework in place Existence of rules to manage water demand at local level					
	Proportion of potential sites for rain water harvesting used Number of rain harvesting structures constructed Water storage capacity status and evolution					
water for agriculture	Proportion of Paddy or Sugar cane field reduction in the village Proportion of farmer using efficient irrigation systems Proportion of the village land irrigated through efficient irrigation system (drip irrigation, ...) Proportion of water irrigation savings					
Water supply service	Operating plan prepared and used Service improvement plan prepare and implemented Who manages the water supply system Who does the billing and collection of tariff Existence of a contract for O&M between service provider and GP's. Percentage of O&M cost recovered by users through adequate and equitable tariffs					
	Percentage of household covered with house connection Number of hours of water supply per day Number of days without service per year If piped water, percentage of household with metered household tap connection Percentage of Non Revenue Water					
Water quality	Status of quality of water delivered by water supply system compared to BIS standard e.i, IS-10500 Status related to Nirmal Gram Purakar Percentage of household with individual soak pits Number of kilometre of sewerage Percentage of waste water collected Statistics from Block Health centres about water related diseases					
Back up Support & Accountability	BRC is in place to support VWSC/GP on long term basis					
	Village social audit committees to verify user satisfaction are functional					