National Rural Drinking Water Programme (NRDWP)

Provision of safe drinking water is a basic necessity. Planning Commission mandates 40 lpcd (litres per capita per day) of safe drinking water within a walking distance of 1.6km in rural areas. Poor quality of water, inadequate availability, increasing operations costs are issues that need immediate attention. In order to address drinking water issues, the rural water supply programme and guidelines have been revised past April 2009 as the National Rural Drinking Water Programme (NRDWP).

Extent of the problem

- India has roughly 1000 m^3 of usable water per person per year[1].
- Around 37.7 million Indians are affected by waterborne diseases annually
  - 1.5 million children are estimated to die of diarrhea alone
  - 73 million working days are lost due to water borne disease each year.
  - The resulting economic burden is estimated at $600 million a year.
- The National Sample Survey's (NSS) remote sensing data suggest that as much as 75 to 80 per cent of the country's irrigated area is served by groundwater wells. This has lowered the groundwater table in many areas.

Objective

The NRDWP is one of the six components of Bharat Nirman aiming to provide basic amenities to the rural India. NRDWP envisages a progressive improvement in service levels with a gradual improvement from unprotected sources to wells, hand wells and household connections. The programme seeks to ensure permanent drinking water security in rural India. It also aims to improve water quality by developing the capability of preliminary water testing at the gram 1anchayat level.

Framework for Implementation

The NRWDP works at 3 levels- National, State and District Level. The following table highlights the various agencies which perform various functions:

	Nodal Agency	Technical Agency	Governance and Monitoring
National Level	Department of Drinking Water Supply (DDWS)	National Technical Support Agencies	Department of Drinking Water Supply (DDWS)
State Level	Rural Water Supply and Sanitation (RWSS) Public Health Engineering Departments (PHED)	State technical agencies	State Level Scheme Sanctioning Committee
District Level	District Water and Sanitation Mission (DWSM)	Water and Sanitation Support Organization (WSSO)	District Water and Sanitation Mission (DWSM)

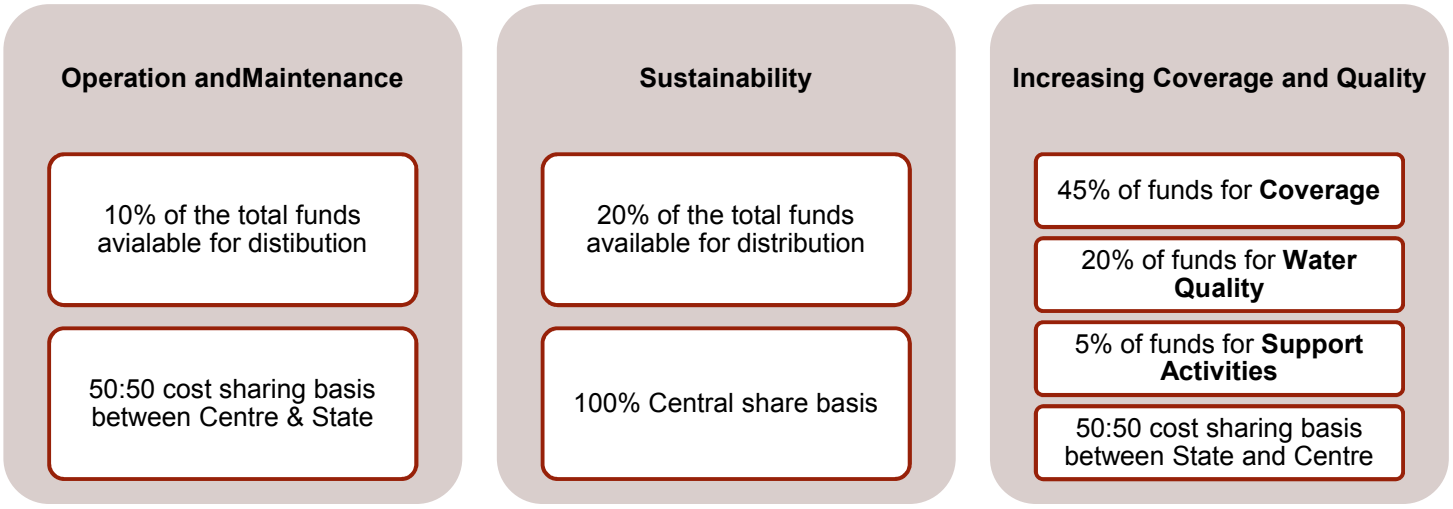
1. According to the Falkenmark Water Stress Indicator a country is considered water stressed if it has less than 1700 m^3

Following itemized list highlights the function of these agencies:

- **Department of Drinking Water Supply (DDWS)** provides policy guidance and monitors implementation and impact of the rural water supply programme in the State.
- The **National Technical Support Agencies** (Council of Scientific and Industrial Research (CSIR) Labs, Indian Institute of Technology) assist the DDWS and Rural Water Supply and Sanitation (which are line departments at State level) by advising on emerging science and technology issues.
- At State level, **Public Health Engineering Departments (PHED)** are primary executing agencies.
- The **State Technical Agencies** will be used to fill be used to fill up gaps in technical needs of RWSS/PHED. They would include reputed technical institutions such as National Institute of Technology (NITs), IITs, etc.
- **State Level Scheme Sanctioning Committee (SLSSC)** should ensure that all the approved projects are entered on the central online MIS for accounting of habitations addressed/covered during the year and should invariably review the functioning/performance of existing water supply schemes.
- **Water and Sanitation Support Organization (WSSO)** acts as a facilitating agency acting as a bridge between the RWSS/ PHE Department and the Community Organizations at the village level (Village Water and Sanitation Committees/ Panchayat Raj Institutions). It will also take up MIS and Computerization programmes, GIS mapping and online monitoring systems.

Components

At the state level, the NRDWP has 5 components. **Operation and Maintenance** includes expenditure on running, repair and replacement costs of drinking water supply projects. The allocation meant for **Sustainability** will be used to encourage states to achieve drinking water security through sustainable sources and systems. Sustainability is the maintenance of desired quantity and acceptable quality standard of water supply services throughout the design life of the water supply systems. Projects under this component include Construction of Sub-Surface Dykes (to control groundwater flow and raise water table), installation of Solar Energy based dual pump piped water supply, etc. **Coverage** entails provision of safe and adequate drinking water to unserved or partially served habitations. The **Quality** component allocation will be used to improve potable drinking water quality. **Support** Activities include – setting up district and sub-divisional water testing labs, provision of hardware and software support for MIS at district and sub-divisional level and awareness generation and training activities taken up by the state.



The states will be asked to prepare district-wise Drinking Water Security Plans to take up sustainability structures by convergence with MGNREGA, Integrated Watershed Management Programme (IWMP) and fund the gaps in the plan from the Sustainability component of NRDWP. This component will be implemented in a decentralized, community-managed, demand-driven form as per the 73rd Amendment to the Constitution, the responsibility for drinking water may be devolved to the Panchayat raj institutions (PRIs). In many States, rural drinking water schemes have been transferred to PRIs for operation and maintenance.

Role of Elected Representatives

District Water and Sanitation Mission (DWSM)

DWSM forms the lowest level agency for implementation of this scheme. All MPs/MLAs and MLCs of the district shall be members of the DWSM. The Mission shall meet at least quarterly. In case of MPs/MLAs/MLCs of the district who are also Ministers in Central/State Governments, they may be allowed to depute one representative each on their behalf to the District Water and Sanitation Mission.

The functions of the mission are as follows:

- Formulation, management and monitoring of projects and progress on drinking water security and total sanitation in rural areas.
- Scrutiny and approval of the schemes submitted by the Block Panchayat/ Gram Panchayat and forwarding them to State Level Scheme Sanctioning Committee (SLSSC).
- Selection of NGOs (such as Water Aid and Modern Architects of Rural India (MARI), etc.) and enter into agreements with them for greater social mobilization, awareness generation and capacity development.
- Sensitizing the public representatives, officials and the general public.
- Engaging Institutions for imparting training for capacity development of all stakeholders, and undertaking communication campaign.
- Coordination of matters relating to water and sanitation between district representatives of Health, Education, Forests, Agriculture, Rural Development etc. as well as national programmes such as Sarva Shiksha Abhiyan (SSA), National Rural Health Mission(NRHM), Integrated Child Development Services(ICDS), etc.
- Interaction with State Water and Sanitation Mission (SWSM), State Government and the Government of India.

Phase 2: Modifications in NRDWP

Programmatic Reforms

- Adequate water supply received by all household instead of a mere installation of a water source will be considered as a criterion for fully covered habitation.
- Change the lpcd (litres per capita per day) standard as a mean of measuring availability of water, but look at larger and various indicators of water security, such as **Economic water security** (measures the estimated need of water for sustained economic growth in the food production, industry, and energy sectors of the economy); the **Environmental water security** (assesses the health of rivers and measures progress on restoring rivers and ecosystems to health on a national and regional scale).
- In order to encourage the States of North-East and J&K, that have limited resources, the fund sharing pattern for them has been liberalized from the existing 50:50 (Centre to State) to 90:10 (Centre to State).

Management Reforms

- Focus on planning to be ensured through preparation of village water security plans and household level water budgeting.
- Planning and water budgeting should be done by Gram Panchayats or their sub-committees.
- Introduction of an incentive of 10% of the NRDWP allocation for the States that transfer the management of rural drinking water schemes to the Panchayati Raj Institutions(Rural population managing drinking water supply schemes).
- Conjunctive use of surface and groundwater and focus on rainwater harvesting for recharge. For old and new ground water schemes, recharge mechanisms will be made mandatory. They must be incorporated in the village water security plans.
- Revival of traditional systems of water conservation such as Tankas, Khadins, Vavdis, and introduction of catchment protection schemes for surface water.

Institutional Reforms

- Convergence with National Rural Health Mission (NRHM) call for health based targets as an improvement in water supply. The Primary Health Centres will be utilized for source testing to ascertain water quality. The ASHA functionary under NRHM will also do inspection of water sources will try to spread awareness on sanitation issues.
- Linkage of National Rural Drinking Water Programme with the Jalmani guidelines for implementation of Standalone drinking water purifications systems in rural schools. Jalmani programme is implemented by State Governments through Gram Panchayats but flexibility is given to involve other stake holders, such as SHGs, Mahila Mandals, etc.

24x7 Water Supply in Malkanpur, Maharashtra

In 2010, Malkanpur suffered from poor and unreliable supply of water and untimely service. To overcome this problem, a distribution network was designed using the “water gems” software. The process of pipe manufacturing was made transparent by involving the village panchayat in monitoring. Third party inspection was carried out as well and it was ensured that pipes used for connections conform to relevant ISO standards. Automatic meter readers used in the project too were third party inspected. Local residents and stakeholders including public representatives undertook a special drive to convince people to fix proper stop-cocks, and prevent wastage of water. A telescopic water tariff system was introduced to curb excessive usage of water. In such a system, the tariffs increase as the consumption rises. The basic minimum water requirements is kept at a lower rate and water demands for comforts and luxury can be charged at a higher rate.

This initiative improved the quality of water supply. 30% reduction in wastage of water was ensured through the telescopic tariff rate. Simplification of billing procedure with automatic meter reader installation ensured that reading could be taken by driving through the streets using radio-frequency hand held devices.