

# An Overview of Rural Drinking Water Supply and Sanitation Policy programme in India

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## 1. Introduction

Water is one of the five basic elements (earth, air, water, atmosphere and fire) from which creation emanates. Water is a prime natural resource and basic need for all forms of life. It is one of the most important priceless gifts of nature. Most of the wars in the world have historically been fought for authority, territory and land. But now this may be changed in present context. It is believed that perhaps the war of the 21st century will be fought for water not for land. Water influences agricultural, economical and industrial growth of a country. It is most widely distributed resource of the earth. Water is a basic necessity for human survival. It has been proved from our historical evidences that the ancient civilization had mainly flourished along rivers and streams. These flourished civilizations had been wiped out due to poor and improper management of water resources.

According to an estimation 1.8 million people die every year from diarrhoeal diseases (including cholera). 90% of those are children under 5, mostly in developing countries. Lack of safe water supply, inadequate sanitation & hygiene are attributed for 88% of diarrheal disease. Apart from those who die, many more children are affected otherwise also. Millions more have their development stunted and their health undermined by diarrheal or water-related diseases. The population in developing countries, living in abject poverty conditions - normally peri-urban dwellers or rural inhabitants – is the worst affected.

## 2. Concept of Rural Water Supply and Sanitation:

The concept of basic minimum needs owes its origin to the circumstances such as the high incidents of Rural water supply and sanitation, wide disparities in the level of development of civics amenities services and social infrastructure in various parts of the country and need for certain minimum acceptable level of social consumption; and the inadequacy of the financial outlays then the states are able to provide for the social services sector consequent on the higher priority demands of other sectors like Rural water supply and sanitation. Water supply and sanitation are important basic needs affecting the quality of life and productive efficiency of the people. The State Governments/Union Territories and Rural local bodies are responsible for providing these services through planning, design, implementation, operation and maintenance. The Ministry of Rural Development assists the State Governments/UTs by providing guidance for policy formulations, technical approval of schemes and provides central funds under the Centrally, sponsored schemes and facilities of external assistance from bilateral/multilateral agencies.

## 3. Water and Sanitation in Indian Context

Out of the total of 1210.2 million populations in India, the size of Rural population is 833.1 million (68.84% of the total Population). It is essential to realize that over the total population of Haryana state; around 65.12 percent live in the villages of rural areas. In actual numbers, males and females were 8,774,006 and 7,735,353 respectively. Total population of rural areas of Haryana state was 16,509,359. The population growth rate recorded for this decade (2001-2011) was 65.12%. The rapid expansion of irrigation and drainage infrastructure has been one of India's major achievements. From 1951 to 1997, gross irrigated areas expanded fourfold, from 23 million ha to over 90 million ha and irrigation continues to be the single largest use of freshwater in India.

## 4. Policy and Programmes Rural Drinking Water Supply and Sanitation in India

### **National drinking water policy mission (1986):**

The entire programme was given a mission approach when the technology mission on Drinking water management, also called the National Water Mission (NDWM) was introduced as one of the five societal missions in 1986. NDWM was renamed as Rajiv Gandhi National Water Mission in 1991.

### **National Water Policy (1987):**

The Government of India drafted the National Water Policy (1987) mainly for managing the water resources available in the country and also to develop the potential so that the gap in requirements increasing population is met adequately. The draft policy accords high priority to drinking water supply. The National Water Policy (NPW) 1987, emphasized maximization of ratter and maximization losses, basin-wise planning, water budgeting reorganization of uses and proper pricing .The NWP has since been in 2002, recognizes water as a prime natural resource, the basic human need and precious national asset. What is a part of the large ecological system and getting progressively scarce? The new policy emphasizes the need to develop, utilize and manage this important resource in a planned and sustainable manner and in a national perspective. The main drawback of this policy is, it is approved by the government and not a law, but only the force of consent.

### **Rajiv Gandhi National Drinking Water Mission (RGNDWM,1991):**

The National Drinking Water Mission had since been renamed as Rajiv Gandhi National Drinking Water in 1991 under the Technology Mission Project to focus attention on some of the most difficult parts of the country. The concept of Mini Mission was district based integration project covering major aspect of urban and rural water supply on a long term

basis with close involvement of the community and non-governmental organizations in implementation, operation and maintenance and health education, of special problem of excess fluoride, salinity, iron etc. with objective of replication of the results in other similar areas of the state.

Although the Rajiv Gandhi National Drinking Water Mission has tried to provide safe drinking water to all country people but still a large number of people are without safe drinking water. The mission also tried to improve the conservation measures of water. Apart from this, it has made some arrangement for creating awareness about the use of safe drinking water and to promote community participation. But as a result of this mission, we can say that people are still using the conservative sources and there is negligible participation of the community in the operation of water supply. So, it is concluded that we may say Rajiv Gandhi National Drinking Water Mission has not achieved commendable access.

#### **National Water Policy (2002):**

This policy is an advanced format of the earlier policy, also accords primary position to drinking water. National Water Policy was adopted in September 1987 since then a number of issues and challenges have emerged in the development and management of the water resources. Therefore, the National Water Policy (1987) has been reviewed and updated, the main components of the policy are given below:-

A standard national information system has to be established, maximum utilization of water resources with the help of water conservation, augmentation etc., and water resources project have to be multi-purpose projects with priority for drinking water, study of environmental socio-economic impacts of the project strict control on ground water exploitation, water toning adequate training facilities for personnel engaged in this field. The success of National water policy will depend entirely on analyzing and marinating a national consensus and commitment to its underlining principles and objective.

#### **India's Draft National Water Policy 2012:**

Ministry of Water Resources, Government of India, in January 2012, released a draft National Water Policy for the consideration and opinion of state governments and other stakeholders. The need for a holistic, national policy has its genesis in the changing patterns of water use across India – both personal and industrial use. This includes the imperatives of providing both clean drinking water and adequate resources for irrigation; the move to look at renewable sources of energy like hydro power; and natural disaster management and rehabilitation following devastating floods and drought. The policy also seeks to offer economic incentives and penalties to reduce pollution and wastage.

As a note, unlike the 2002 policy which encouraged private sector participation in planning, development and management of water resources, the emphasis on private sector participation has been dropped from the 2012 draft. Instead, the current policy seeks to develop a public-private partnership model to effectively manage water resources. This

is a result of public concern and opposition at the possibility that the private sector may own water assets. Water – which is currently managed by individual states – will likely become a topic of national interest after the formulation of the legislation by the central government. The policy has been vociferously opposed by farmers in some states, as the proposed water policy intends to impose an official control on the use of ground water – something currently unregulated in most states.

### **5. Administrative Setup of Rural Drinking Water and Sanitation**

#### **Institutional Mechanism:**

At the National level, the Ministry of Home Affairs / Ministry of Agriculture (only for drought, pest attack and hailstorm) are the nodal ministries for management of disasters in the country. The Ministry of Drinking Water & Sanitation (MDWS) will be responsible for providing technical and financial support to State RWSS / PHED / Board while responding to natural calamities for restoration of damaged water supply and sanitation systems. Upon receipt of a memorandum from the State Governments seeking additional Central assistance in the wake of any calamity and of the constitution of Inter-Ministerial Central Teams, MDWS will depute an officer who is competent to understand the situation and can join the Central team for conducting damage assessment. Subsequently he / she will de-brief the nodal Ministry and MDWS of any relief assistance required under the NDRF / NRDWP norms to the State. On the recommendations of Inter Ministerial Group and High Level Committee, funds would be released from NDRF / SDRF for items admissible under NDRF guidelines and from 5% NRDWP Calamities fund for items not admissible under NDRD

#### **State Level:**

In the aftermath of a disaster, the primary responsibility for undertaking rescue, relief and rehabilitation measures rests with the concerned State / UT governments. As the first step towards a coordinated disaster response mechanism, the State / UTs will have a clear cut organizational structure with the following designated rural water supply & sanitation nodal officers.

#### **District / Gram Panchayat Level:-**

District Water and Sanitation Mission (DWSM): At the district level for the purpose of combating calamities, DWSM will function under the supervision of District Magistrate / Collector to carry out the actual implementation of rural water and sanitation relief projects

### **6. Review of Literature:**

The available literature on water supply and sanitation shows some particular aspects of the problem such as Jha, Brajesh (2000) observed that the existing wheat-paddy cropping system and submersible pumps are declining the ground water table. Navalawala (2000) found that the quality of municipal services, in mega cities, has steadily deteriorated. Delhi is not an exception to it. Singh (2001) observed that a little attention has been paid to the major issues i.e. Rural water supply and sanitation administration, policies of centre and state government, administrative, responsibilities, duties,

operation & maintenance, role, responsibilities and duties of citizens etc. Bajpai (2001) concluded that all cities and town in India many households do not have access to water on tap. Calaguas and Roaf (2001) draw the attention towards poverty and lack of access to water sanitation services particularly in the developing countries. Further, the rural areas are more affected with these problems as there is an increase in population growth in demand due to changes in lifestyle, commercial growth in cities etc. Singh (2001) pointed out that India is in a flux of change as a consequence of rapid development in industrial as well as farm sector the emergence of new towns to big cities. Kumar, Anuradha (2002) stated that local communities are unwilling to operate and maintain completed structures on community property. Prasad, Ganesh (2002) informed that the Karnataka Irrigation Act has provisions regarding location of wells in the command areas, cropping pattern, and penalty provisions for violation of both cropping pattern as well as location of wells etc. But the implementation of these provisions has not been satisfactory. Souvik (2002) stressed that during the twenty-first century water resources will become an increasingly serious constraint on agricultural production. Kumar, Arun (2002) informed that the government agencies have set up de-fluoridation plants in Gujarat are not working properly due to various reasons. Reddy, Venkata. M (2002) explained that the economic viability of creating water councils; the viability of distributor unit for formation of a council needs to be viewed in a more flexible way depending upon the size and spread. Rao, C.H. Hanumantha (2002) expressed that the farmer should save water under the existing system of management. On the other hand, a system of rationing water supplies in water scarce regions even with moderate changes can induce farmers to increase water productivities. Dhar (2003) explained that the present situation of water scarcity and it is going to be more critical in the 21st century. This article presents the need of the water resources management to solve the water crisis problem in the coming years. Chatterjee (2003) discussed the issues like pricing of water efficient collection of charges, self-sustaining O & M of civic water resources and assured supply of quality drinking water, to arrest the deterioration in this vital sector. The study emphasized on the need to recycle the water for non-potable need. Thus, Rural water supply is basic necessity to be provided or regulated by the state itself or through any other public or private agency.

Jain (2003) suggested that there should be adopted such type of arrangements which not only improve the environment by treated waste water but also recycle the treated effluent. Dhaliwal (2004) focused on different aspects such as challenges of Rural local government in developed and developing countries, with special reference to India, Rural management including 74th constitution amendment, integrated development of small and medium towns exiting Rural infrastructure development in local government for 21st century, financing of Rural local government and privatization of Rural services. Arabi (2004) found that in developing countries the private sector has been growing in health and education and the push to privatize water and other hospital services have been driven by three factors (i) Lack of government resources (ii) Low quality public provisions (iii) Pressure to liberalize the economy. Chader, Dinash (2004)

described that water quality assurance is an integral part of safe drinking water supply programme. It determines the state of system, in term of quality and quantity if source at a particular location to gain perspective on long term water quality at selected sites.

Vaidyanathan, A. and Shivasubramaniya, K (2004) assessed that the 'efficiency' of water uses in three ways: Irrigation efficiency, Productive efficiency and economic efficiency. Shah et al. (2004) explained that south Asian discussion on water reforms need to incorporate a wider body of experience; as such Chinese explorations one appropriate candidate. China has experimented with a variety of models of irrigation service providers who are incentivized for better service deliver, improved water use efficiency and better performance in water fee collection. Kumar M dinesh et al. (2004) described that use of micro-irrigation technologies would also contribute to making water use in agriculture more efficient and sustainable. Narayana (October 2005) viewed that every drop of water should be judiciously utilized and its reckless wastage eliminated. We should harvest water in all possible ways and building should be design for these purposes but go beyond it too. Pattanik (October 2005) expressed that drinking water is seriously affecting the health of future generation, who are growing up with bout of debilitating diarrhoeal diseases, so prime responsibility of nation (Govt.) is to all its citizens. Reddy (2005) estimated the cost of groundwater over exploitation and estimate the costs and benefits from groundwater replenishing mechanisms in different ecological contexts. Deepak et al. (2006) concluded that 40% of the countries that are facing a population explosion would experience water stress. Agricultural and other economic activities can only be successfully carried out if there is sufficient fresh water. He explored the use of new and innovative technique such as remote sensing, GIS and GPS in identifying areas, which need to increase its fresh water supply. GIS and GPS can help to locate the area where there is acute shortage of water and whether the area is near the sea. This information can be presented clearly in the form of maps with reports allowing the decision makers to have a complete scenario of the problem and can focus on the real problems and other issues.

Verma, Manisha (2009) observed that the provision of safe drinking water is considered today as a fundamental to governance; to promote good health and welfare of the people. Patanaik K. B. (2009) examines that water is life and is a basic need of human beings. Leite (2010) argues that development projects are currently falling short on tackling women's complex needs and interests in relation to water. Brij Pal (2012) found that a variety of programmes were launched to cope with the problems but their implementation could not yield commendable results as the goal of providing safe drinking water for all still away and the sanitation problem has not reduced significantly. Gyana Ranjan Panda, Trisha Agarwala (2013) observed that with the changing face of Delhi, delivery of essential services like drinking water and sanitation to the people living in slums ought to be a policy priority for the government. Biraja, Kabi Satapathy (2014) analysed the water, sanitation and hygiene situation in slum households and compares it with the non-slum urban households using data

from the 2011 Census. The scholar advocated for a shift from availability of infrastructure to delivery of service-level outcomes. Arjun Kumar (2015) found that the inadequate availability of drinking water and proper sanitation, especially in rural India, leads to innumerable deadly diseases, harms the environment, and also affects vulnerable populations, such as persons with disabilities and women, exposing them to sexual violence. Pankaj K P Shreyaskar (Dec, 2016) observed that improving the access to water and sanitation for all sections of society has been a significant development priority in recent decades in India and the same has been juxtaposed with advocacy for water and sanitation to be recognised as the legal human rights. However, very limited attention has been paid to seeing water and sanitation as a legal right for the populace, despite the debate over the abysmally low indicators of hygienic parameters for the vulnerable sections of society. Rashmi Tiwari, Sanatan Nayak (2017) revealed that sources of drinking water, income, family size, education, occupation and caste are the main determinants of purification behavior and waterborne diseases.

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## 7. Conclusion

In the light of the above discussion, it can be concluded that water quality is as important as water quantity. Access to safe water in both quantity and quality should be treated as a fundamental right of individual. Water use for domestic purposes (for washing, cleaning, bathing etc.) should be collected and recycled for non-drinking domestic and industrial purposes. Much more efforts are required on the part of the Union and State Governments, PRIs, NGOs and other community organizations. Special attention on the part of the State Government with strong political will is required to get the programmes implemented effectively by devolution of requisite powers to the PRIs. The centre and state government should take bold steps to solve the coming water crisis/problems at all level. An adequate sanitation facilities in rural India is the need of the hour, which must be accompanied by constant scrutiny and monitoring, so as to arrive at apt decisions and policies for further action.