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Five Year Plans and Rural Water Supply in India: A Critical Analysis

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Abstract

Collectively, billions of dollars have been invested in the provision of rural water supply systems in developing countries like India over the past three decades. Although progress is being made and rates of coverage are increasing, users often find that, once installed, water supply systems are poorly maintained and eventually break down, leaving them with an unreliable and disrupted water supply. Supporting Rural Water Supply takes a critical look and asks why we have been unable to provide a sustainable water service to rural people for so long? In this paper, the historical development of rural water supply in ancient India and recommendations of various committees has been discussed in brief. An attempt has been made to highlight the fund allocation under various Five Year Plans.

Keywords: Water Supply, Plans, MNP, ARWSP, PRIs

1. Introduction

Fresh, accessible water is a scarce and unevenly distributed resource, not matching patterns of human development. Over half the world's population faces water scarcity. Water plays a vital role in the sustenance of all life and it is a source of economic and political power (Narasimhan, 2008) with water scarcity a limiting factor in economic and social development. International attention has to date, focused on water quantity, the supply of drinking water and increasing access to sanitation with commitment expressed through the World Summit of Sustainable Development and the Millennium Development Goal 7 for Environmental Sustainability, target 10 for safe drinking water and sanitation. International decade of water (2005-2015) is considered as Action Plan with slogan "Water for Life". Despite this high profile attention, this issue is proving difficult to resolve, requiring significant sum for investment, over long periods of time and with jurisdiction often spread across several government departments. Worldwide, nearly 900 million people still do not have access to safe water (UNDESA 2009), and some 2.6 billion, almost half the population of the developing world do not have access to adequate sanitation (WHO/UNICEF, 2010). Over 80 per cent of people with unimproved drinking water and 70 per cent of people without improved sanitation live in rural areas (DFID, 2008).Water supply have a direct impact on the economic development of any country. This is because it has to support food production, manufacturing and various other water dependent societal supplies. The availability of water has a direct impact on the self-sufficiency of any economy and access to clean water is universally accepted as a precondition for economic and social development (Molden and Merrey 2002; Gilbert et al. 1997). Globally, 1.1 billion people lack access to safe drinking water and approximately 2 to 4 million deaths a year are attributed to unsafe drinking water.

2. Water Supply System in Ancient India

Water forms one of the most basic components of our living environment next to air. Human culture and civilization are vitally linked with water resource. The early human settlements were invariably located

along the river banks. Some of the earliest civilizations flourished along the banks of the rivers Tigris, the Euphrates, the Nile and the Indus. Archaeological excavation reveals that as early as 2500 BC, the people of Harappa, Mohanjodaro and around Indus river basin had well organized water supply systems. The kiln-burned bricks and the elaborate drainage system of Mohanjodaro and Harappa bear testimony to this.(Kurup K. Balachandra) However, it is believed that it were the Chinese who had first developed the art of sinking wells as deep as 500 metres below the ground. Long distance water supply through high pressure pipelines is believed to be of Greek origin. During the Roman period, the development of ancient water supply systems attained its zenith. The first great aqueduct was the Aqua Appia built around 312 BC which by 305 AD had developed into a network of 14 aqueducts with a total length of nearly 360 miles including 50 miles supported on stone arches.The development in the field of water supply system remained almost static until 17th and 18th centuries but it was again confined to the Europe. It was only the 19th century that the Americans had developed more advanced systems for water supply, its treatment and disposal. Industrial growth and technological progress in a country, together with a fast increasing population inevitably bring in their wake the multifarious problems of a clean and protected water system to its citizens. The natural laws of water depletion and replenishment can be considerably distorted in a local or quasi-local scale in response to needs of a fast growing population. The general awareness of this problem is adequately borne out by the increasing attention it has been receiving in almost all the countries of the world, especially developed ones.(Ghosh, Mazumdar, Dubey, Chander)

The issue of potable water has been attracting attention of the government and the international agencies. The United Nations initiative in the water sector at the global level, Vancouver Habitat 1977 Conference, International Drinking Water and Sanitation Decade Programme, UN Resolution regarding safe water by 2000 AD etc., bear testimony to the interest, that the inland government and agencies abroad are taking in this regard. Back home, the Rajiv Gandhi National Drinking Water Mission (RGNDWM) under the auspices of the Ministry of Rural Development has been implementing the programmes of potable water supply to the population in rural areas. Thus, there is great need for the improvement in the provision of drinking water, being a basic amenity and it deserves the highest priority in the development efforts of most of the countries which have large gap between the demand of water and of actual availability.

Our country has large population and also high rate of growth, and it is very difficult for the government to provide adequate drinking water supply within limited resources. In over 50 years of political independence and economic development, India has not been able to ensure the most basic of human needs – safe drinking water – for all its citizens. Rural areas contain the largest number of people without access to safe water but, in common with many developing countries, the fastest growing un served populations live in urban and peri-urban areas. As many as 1.62 lakh problem villages were identified in 1985, and the situation was slightly better in urban areas. Naturally, this called for massive central and state government intervention which was reflected both in term of successive Five-Year Plans' priorities and higher plan outlay for this sector particularly for rural water supply programme. The distinctive feature of the Indian rural water supply scenario was a Mission Approach with appropriate combining of technological, social and organizational innovation. Technologically more efficient water supply systems, including regional pipe water supply schemes on the one hand and dug-wells with energized pump-sets on the other, have been brought in on a large scale.

The policies and programmes recommended by Bhore Committee and Environment Hygiene Committees regarding water supply has been discussed in brief here.

3. Bhore Committee

Bhore Committee constituted in 1944, was the first body to draw attention to safe-drinking water supply at the national scale. During the pre-independence period, this Committee laid emphasis on the safe-drinking water supply. In 1947, Madras Government followed the course by appointing a committee. The state government was interested in the formulation of some new policies regarding urban and rural areas in the entire state. Therefore, the committee was to examine the question of water supply and drainage and to present its report on these to provide water supply and sanitation facilities for 90 per cent of the population

within a period of 40 years. And also suggested a scheme of priorities for certain areas. Thus, this was the first time when the recommendation was presented for the entire country and for future the concerned were made aware of this issue.

3.1 The Environmental Hygiene Committee

The Environmental Hygiene Committee was appointed in 1948-49 by the Union Government. This committee was the first agency for an overall assessment of the country-wide problems in the entire field of environmental hygiene and it made notable recommendations in the broader field of environmental hygiene and urged for greater activities in this direction. This committee recommended particularly a broad plan to provide water supply and sanitation amenities for 90 per cent of the people within a period of 40 years and also advised a scheme of priorities for certain areas. (Srinivasan, S.) However, the National Water Supply and Sanitation Committee appointed by the Union Ministry of Health, as late as 1960, had noted in its report submitted to Government of India in 1961, which no specific measures were taken to implement the recommendations of the Environmental Hygiene Committee.

An attempt has been made to discuss in brief the policy initiatives taken by the Government of India under the Five Year Plans

4. First Five Year Plan: 1951-56

In the initial stage of the Plan, provision of water supply and sanitation schemes in the States was made from the fund under Community Development works and local government works. There was, however, no central direction or leadership provided in the matter. In 1953, in response to a circular enquiry from the Union Health Ministry, the information elicited from all the State governments showed that they were unable to make any headway in regard to their water supply and sanitation schemes due to several factors. The States desired that the Centre must step into picture and announce a programme of assistance to help them to proceed with such schemes.

The Union Health Ministry announced the national water policy and sanitation programme as part of the health schemes in August-September 1954 under the Plan, and made specific provisions to assist the States in the implementation of their urban and rural water supply and sanitation schemes. Approved urban schemes were to receive assistance by way of loan, while rural schemes, limited to population units not exceeding 5000 (as per Census) were to be given a 50 per cent grant-in-aid by the Centre, the other 50 per cent being funded by the State governments, partly as grant-in-aid and partly as contributions from the villagers either in cash or in labour or in materials. The programme was started with an aid of US $ 2.5 million in the form of equipments and material under the Technical Co-operation Programme of the United States. The First Plan had made a total provision of Rs. 12 crore for urban schemes and Rs. 6 crore for rural schemes to cover the activities during the last 18 months of the Plan period.

Actual expenditure under the First Plan was of about Rs. 5.60 crore on rural schemes under the National Water Supply and Sanitation Programme. Under the Community Development programme, the total expenditure was about Rs. 4.5 crore incurred on all health schemes, including water supply. About 107000 wells were constructed or renovated under this programme. The expenditure under local development works programme was Rs. 7.25 crore and the number of wells constructed or renovated during the Plan period was 29,650. (Planning Commission Review)It was observed that the schemes launched during the First Five Year Plan did not make satisfactory progress on account of shortage of material, inadequate transport facilities and the absence of adequate public health engineering staff in the State to plan and execute the schemes. The rural works could not make satisfactory progress primarily due to lack of appropriate organisation and trained personnel. Besides, these works had been frequently executed by variety of agencies and had become purely construction projects with little public health education of the villagers in the need for and use of sanitary facilities. However, the water supply through local development works and through the national extension as well as community development programme had improved to some extent.

During the First Plan, public health engineering organizations were set up at the centre and in several States, but most of these organizations were not adequately staffed. Public Health Engineering organizations were needed in all the States and they were to have staff with special training in public health and engineering. Accordingly, a provision of Rs. 50 lakh was made for this purpose.

4.1 Second Five Year Plan: 1956-1961

Problem of rural water supply varied from region to region and often within the same region. As regards rural water supply schemes, these had been taken up mainly under the programmes for community development, local development, works and welfare of backward classes. These were supplemented by the national water supply and sanitation programme under health which dealt with the provision of water supply to groups of villages through works requiring a measure of technical skill in design and construction. The programme gave priority to areas of water scarcity and salinity and those in which water borne diseases with endemic were prevalent. A tentative provision of Rs. 28 crore was made for rural water supply.

4.2 Third Five Year Plan: 1961-1966

Surveys to ascertain the then present State of rural water supply were undertaken in a number of States, where such surveys had not been initiated, it was necessary to arrange for them so that for every State a correct assessment of the extent of the problem might become available as a basis for detailed programmes to be implemented during the Third Plan. To achieve the objective of making supplies of good drinking water available to most of the villages in the country by the end of the Third Five Year Plan, it was necessary not only to make an intensive efforts, but also to ensure that at every stage, there was effective coordination between all agencies concerned in carrying out the programme of rural water supply at the district and block level and to mobilise local initiative and contribution to the utmost. Under different programmes, a provision of Rs. 67 crore was available in the Third Plan for rural water supply. This included Rs. 35 crore for the village water supply programmes, about Rs. 16 crore under the plan of the State under health, about Rs. 12-13 crore under the Community Development Programme and about Rs. 3-4 crore under the programmes for the welfare of backward classes. The greater part of the amount provided for the village water supply programme intended to be available for: (a) backward areas; (b) areas not covered by community development programmes; (c) pre-extension blocks; and (d) blocks which had completed their first and second stage in the community development programme. The village water supply programme was intended primarily to deal with the rural water supply at the village level. As a rule, the ceiling of Rs. 10,000 per village was to be observed. The public contribution was generally expected to be about 50 per cent but this proportion was to be changed and modified in difficult areas or in backward areas. Schemes for groups of villages which involved provision of piped water supply and work of an engineering character were to be catered for by provisions under the health programme, and for such schemes there could be a part contribution from funds available under the village water supply programme was to be undertaken at the block level through Panchayat Samitis and village Panchayats as well as the funds routed through the organization at the block level. It was proposed that there should be a broadly agreed programme at the local level under which all provisions available for water supply were effectively utilized.

4.3 Three Annual Plans: 1966-67, 1967-78 and 1968-69

The national water supply programme commenced in August 1954 under the Union Health Ministry continued with the same pattern of financing during the Second and Third plan. During three annual plans i.e. years, 1966-67, 1967-78 and 1968-69 except that the pattern of financing for rural water supply schemes was also available for small towns with a population upto 20,000 in 1967. Till 1968, the States were required to send all schemes to the Union Ministry of Healthy for approval and only such schemes which were approved, qualified for central assistance under the programme. The idea was to ensure that the schemes so taken up were technically viable. Meanwhile the States Public Health Engineering Organisations were built-up and had adequate number of trained personnel. Taking note of this

development, States were delegated powers in 1968 to approve rural water supply schemes with estimates upto Rs. 10 lakh involving per capita cost upto Rs. 60. During the three Annual Plans, 478 new schemes at an estimated cost of Rs. 21 crore were taken up. During 1961-69, about 6000 more villages had been provided with piped water supply.

4.4 Fourth Five Years Plan: 1969-74

The ongoing rural water supply schemes were supplemented by the National Water Supply and Sanitation Programme of the Union Ministry of Health. In executing the national water supply and sanitation, emphasis was laid on providing water supply to areas which suffered from water scarcity and salinity and where water borne diseases were endemic.

Under a centrally sponsored programme, assistance was given to State governments for special investigation divisions attached to their public health engineering departments. They were to prepare technical designs and estimates of rural water supply schemes, particularly in difficult areas, making use of the data available from the exploratory tubewells organisation and the Geological Survey of India. A provision of Rs. 2 crore had been made for the purpose of designing these schemes. Central assistance was given to institutions for training in public health engineering. The total requirement was large and provision of Rs. 339 crore was made to meet only the part need of water supply and sanitation. The target for the year 1970-71 was to provide wells for 3570 villages and piped water supply to 166 villages. An expenditure of Rs. 500 lakh was expected to be incurred during 1970-71 on rural water supply schemes. It was considered necessary, that in rural areas water supply schemes should be looked upon as a service which has to be paid for land whereas possible capital contributions and levies should be collected from the beneficiaries.

4.5 Annual Plan: 1971-72

Rural local bodies had been given powers regarding financing of water supply. The Zila Parishads were asked to take up works in all villages where simple measures were to be adopted to solve the problem. The programmes for the year 1971-72 included construction of simple wells for 1450 villages and completion of the piped water supply. The Annual Plan for 1971-72 included an outlay of Rs. 485 lakh on account of rural water supply, Rs. 72.63 lakh for well construction programmes and Rs. 412.37 lakh for piped water supply scheme. The Zila Parishads were required to raise loan from the LIC to the tune of Rs. 2.50 crore.

4.6 Annual Plan: 1972-73

For the payment of the beneficiary's share, the Zila Parishad and other local bodies had been provided various facilities. The people's contribution could be made in the form of cash, kind and or labour. The people could pay: by instalments upto 4 in case the amount of contribution exceeds Rs. 75,000 and upto 3 in case it was Rs. 75000 and below; by obtaining contribution from the village Panchayat, Panchayat Samities/or the Zila Parishad; by taking loan from the District Village Development Fund; and by taking loan from government to the extent of 60 per cent of the amount in the case of a piped water supply scheme costing upto Rs. 5 lakh and to the extent of 30 per cent in the case of a scheme costing above Rs. 5 lakh.

For financing the rural water supply during 1972-73, a provision of Rs. 640 lakh was made in the budget and an amount of Rs. 400 lakh was anticipated from the LIC as loan. The target for this year under well construction programme was to finance 9787 simple measure works in progress and to take up 3695 new well works to benefit 10434 villages. The amount proposed from the State funds for well construction programme was Rs. 200 lakh. For financing the piped water supply programme an amount of Rs. 400 lakh was anticipated from LIC.

4.7 Annual Plan: 1973-74

The Fourth Plan had already emphasized that the bulk of plan provisions be spent in scarcity and difficult areas, leaving other areas to be served by programmes for community development or through local effort. For the Annual Plan (1973-74), a provision of Rs. 44.09 crore had been made in the Plans of the States and Union Territories. Under the ARWSP, a provision of Rs. 15 crore was made in the year 1972-73, but schemes of more than twice the amount had been anticipated for execution so that with a provision of another Rs. 15 crore could be provided for the year 1973-74. On the other hand, under a central scheme, UNICEF assistance was secured through 100 high speed drilling rigs suitable for hard rocky areas. These rigs were to be utilized by the States for drilling small bores. A provision of Rs. 43 lakh was made for rural water supply in 1973-74. A provision of Rs. 1.03 crore for the central and centrally sponsored schemes referred above had been made for the year 1973-74.

4.8 Fifth Five Year Plan: 1974-79

In the first three years of the Fifth Plan with a provision of Rs. 201.10 crore, about 57,800 villages were expected to be covered. The allocation made for the remaining two years was on the basis of providing safe water supply for addition 53900 villages. The provision which had been made was of the order of Rs. 180.14 crore inclusive of Rs. 157.87 crore under the MNP. Proposals for the Fifth Five Year Plan addressed themselves – (i) to cover the remaining problem villages with potable drinking water; (ii) to strength and augment urban water supply in areas which were having inadequate piped water supply; and (iii) to cover predominantly industrial cities fully with sewerage facilities. In the revised Fifth Plan outlay, an amount of Rs. 920.41 crore was fixed for the States and UTs, and Rs. 591.14 crore other than MNP. There was an allocation of the outlay of Rs. 329.27 crore in the MNP and Rs. 10.27 crore fixed under central sector for water supply and sanitation. Thus, on both the programmes, a total outlay of Rs. 930.68 was provided. (Five Year Plan)

In order to boost these services, Haryana government incurred an expenditure of Rs. 12.01 crore in 1974-75, Rs. 14.07 crore in 1975-76, Rs. 17.45 crore in 1976-77, Rs. 22.52 crore in 1977-78 and Rs. 25.90 crore in 1978-79. No doubt, the amount had been increased during Fifth Plan but the percentage to the total expenditure declined in that period.

4.9 Sixth Five Year Plan: 1980-85

Even after an expenditure of Rs. 622 crore, only 64000 villages covering 10 per cent of the rural population were provided safe drinking water supply facility at the commencement of the Plan. Around one lakh problem villages were not having even the most elementary water supply facility. An assessment survey was undertaken at the instance of central government in 1971-72 which had identified 1.52 lakh villages as falling under the category of problem and difficult villages. It has been estimated that as a result of larger investments since then a little over 1.04 lakh problem villages would have been covered by March 1978, leaving only 48,000 difficult villages to be covered. According to the figures made available by the State governments, the number of these villages was about 1.45 lakh at the end of 1977-78. During Sixth Plan, there was a provision of an outlay of Rs. 1407+600 crore under MNP, but the expenditure incurred was Rs. 1497.90 + 908.66 crore.

4.10 Seventh Five Year Plan: 1985-90

The rural water supply continued to be a part of the Minimum Needs Programme launched in the Sixth Five-Year Plan. In order to achieve the maximum coverage of rural population during the Seventh Plan, the scope of rural water supply under MNP needed to be extended to all villages, whereas it was restricted to identify problematic villages until the end of the Sixth Plan. It may be noticed that during the Sixth Plan period, there had been a quantum jump in investment in this sector, especially with regard to the provision of rural water supply.

It is considered necessary to plan and develop the prime natural resources carefully under the given national

perspectives. The Ministry of Water Resources drafted the National Water Policy in 1987. The main components of the policy are given below:

- A standard national information system has to be established with a network of data banks to collect information about resources availability and their utilization.
- Comprehensive and reliable projections of future demands for water for diverse purposes.
- Maximum utilization of water resources with the help of conservation, augmentation and prevention of losses.
- Water resources projects have to be multi-purpose projects with priority for drinking water use, the other uses being irrigation, flood control, power generation, navigational, industrial and recreational.
- Study of environmental socio-economic impacts of the projects during construction and later stages has to be an essential component of project planning. The adverse impacts if any, is to be minimized and off-set by adequate compensatory measures.
- Integrated multi-disciplinary approach with more attention to needs of tribal and Scheduled Castes or weaker sections of the population.
- Strict control on ground water exploitation to ensure social equity and to avoid adverse effects like salinity ingress.
- Integrated and co-ordinated development of surface and groundwater and their conjunctive use.
- Water toning including industrial, agricultural and urban development should be planned on the basis of water availability in a particular zone.
- Adequate training facilities for personnel engaged in the discipline of water management.
- Efforts should be made to involve people in various aspects of management, especially distribution of water and collection of water rates.(Iyer, Raamaswamy)

There is no denying the fact that the National Water Policy 1987 has assigned the first priority to drinking water but it requires legislative backing. Access to safe drinking water has to be recognized. The other priorities in this policy can also not be considered as absolute because they may vary in accordance with circumstances. Thus the policy approved by the government is not a law; it is only the force of consent. It is suggested that the National Water Resources Council and the National Water Policy (NWP) should be given a statutory backing, but it is not clear whether this is in fact necessary, and if so how this can be done.

The components and the objectives of the water policy could not be achieved as a study conducted by NIRD, Hyderabad has found inadequate people's participation; poor legal provisions and penalties; inadequate anticipation of the problems of transition related to transfer of operation and maintenance activities; and no collaboration between Panchayats and NGOs in the rural water supply.(Dasgupta, P.)

In view of resource constraints, the coverage of villages with water supply schemes during the Seventh Plan was to follow a certain order of priority. The spill over of identified problem villages (39,000) based on the existing criteria was in any case had to be covered before other villages could be taken up. The next priority was to be given to those villages which had been identified as problem villages. This task was completed and every village was provided with at least one source of water supply. Water supply facilities were to be further expanded in order to provide adequate water supply to the villagers.

Attempt was also made to cover all those villages which did not have an assured source of water supply within a distance of 0.5 km. (as against the then prevailing norms of 1.6 km.) and also to enhance per capita norm for water supply from 40 litres per capita per day (lpcd) to 70 lpcd during the Seventh Plan as recommended by the Estimate Committee. Poor section of the society like Scheduled Caste, Scheduled Tribes and Landless Agricultural Labourers were ensured to have equal access to this facility. To provide them this facility additional source were installed.

During Seventh Plan, there was a provision for total Plan outlay of Rs. 84466 crore under the State/UT Plans outlay but there was a provision of Rs. 2350 crore for rural water supply and sanitation under

State/UT Plan outlay which was 2.78 per cent of the total plan outlay. But the total State/UT plan expenditure was Rs. 91509.66 crore but for rural water supply this expenditure incurred to Rs. 2620.76 crore which was 2.86 per cent of the total expenditure.

4.11 Annual Plan: 1989-90

A major objective under the MNP was to provide safe drinking water supply as per the approved norms to rural population in the residual problem villages by 1990. In order to give a sense of urgency to this work, the National Technology Mission on Drinking Water was launched in October 1986. As a new policy direction for solving the drinking water problem coverage of problem in villages had to be as per the following priorities:

- to cover Sixth Five Year Plan spill over problem villages - 1980 list;
- to cover all villages with no water source – 1985 list;
- to cover "no source" problem villages certified subsequently but not yet covered;
- to cover all villages with contaminated drinking water (chemical bacteriological);
- to cover all villages with per capita water supply less than 10 litres per day; and
- to cover all villages with per capita water supply less than 40 litres per day.

In view of the special need of different areas (desert, hill and drought prone) special weightage was given while allocating funds, first source of water supply was to be located in the area predominantly inhabited by SC and ST. During 1988-89, an approved outlay was kept at Rs. 563.81 crore under MNP and Rs. 409.75 crore under the centrally sponsored Accelerated Rural Water Supply Programmes. The target for the Annual Plan 1989-90 was to provide safe drinking water supply in 16,671 'no source' category problem villages and to provide additional source in 32,822 partially covered villages and 2298 non-problem villages with an outlay of Rs. 1008.6 crore. In the year 1989-90, Rs. 598.85 crore under the MNP and Rs. 409.75 crore under ARWSP were provided to expand for the rural water supply. The main objective in this year was to provide safe water to the 5295 'no source' villages with the assistance of Rs. 1093.43 crore. In Haryana, during this plan an amount of Rs. 126.82 crore which was 11 per cent of the budget was decided to expand on these services.

4.12 Annual Plan: 1990-91

It was decided to provide safe water to the rural population under the Minimum Needs Programmes and it remained continued in the annual Plan 1990-91. The main objective of this Plan was to provide 40 lpcd water to every individual within the limited resources.

In 1990-91, a provision of Rs. 37.48 crore was made for village sanitation system programmes under which an amount of Rs. 17.48 crore had to be spent under Minimum Needs Programme and Rs. 20 crore had to be spent under village sanitation programmes. In that year, the main objective was to provide toilets to 2.58 lakh families. During this Plan, the State government made a provision of expenditure of Rs. 128.69 crore on these services which was 9.93 per cent to the total expenditure. The amount had increased during this plan but there was decline in the per centage.

4.13 Eighth Five Year Plan: 1992-97

At the commencement of the Eighth Plan period, there were about 3000 no source problem villages. The norms which were adopted envisaged a source within a walking distance of 1.6 kms. or elevation difference of 100 metres in hilly areas and at least one handpump/spot source for every 250 persons, the accessibility of drinking water supply to the people was to be progressively improved upon. Special and specific measures were also needed to tackle quality problem, such as guineaworm, excess fluoride, high iron content and salinity. Water quality monitoring was to be streamlined and given proper emphasis to ensure

safe drinking water. Simultaneously, steps were to be taken for replacement and rejuvenation of defunct handpumps/tubewells. Measures for conservation of water and recharge of acquifers were to be implemented on a larger scale to provide for sustained supply of water. Budget provision of Rs. 5743 crore was made for water supply and sanitation.

Keeping in view the constraint of resources and other competing demands, the Eighth Plan provided an outlay of Rs. 16711.03 crore of which Rs. 10743.03 crore was under States/UT Plan and Rs. 5968.00 crore under Central Plan for water supply and sanitation programme. This works out to 3.85 per cent of the total public sector outlays. This includes loan assistance from LIC as well as external assistance from the World Bank and bilateral agencies. Out of 1.43 million rural habitations in the country, 1.40 million habitations had access to safe water. The total latrines constructed under the programme (CRSP + MNP) upto the end of Eighth Five Year Plan period (1996-97) were 43,37,609 with a total expenditure of Rs. 757.62 crore. The Central allocation for 1997-98 was Rs. 100 crore. The State MNP provision was Rs. 209.83 crore.

4.14 Ninth Five Year Plan: 1997-2002

The Ninth Plan envisaged 100 per cent coverage of all habitations with safe water, together with the installation of a quality monitoring and surveillance system all over the country, evolving cost-effective and socially acceptable O & M strategies, re-orienting the structure and functioning of rural water supply planning and implementing agencies and taking measures to ensure sustainability of drinking water. The other priorities tasks were tackling the problems of drying of sources, providing a role for the beneficiaries and Panchayati Raj Institutions (PRIs) in planning and implementing of the water supply facility. In view of the resource constraints, it restricts the role of external agencies to priority areas.

During Ninth Plan, the revised policy for the implementation of rural water supply programme has been approved by the Union Cabinet. The salient features of this policy were as follows:

- In the revised guidelines, the criteria of funds under ARWSP to the States based on normative criteria should be replaced with a need-based approach to achieve the objectives of coverage within the time frame set by the National Agenda for Governance of the Central government. The more affected areas like drought prone, desert regions would get more allocation.
- States have to be given more powers for implementing of sub mission programmes.
- Providing 100 per cent funds for the nascent programmes such as Human Resource Development, Research and Development, Information Education and Communication and Management Information System.
- Institutionalizing community based demand driven rural water supply programme with cost sharing instruments by communities, gradually replacing the current supply-driven and centrally maintained non-people participating rural water supply programme.
- Institutionalizing water quality monitoring and surveillance system.

As regards rural sanitation, a demand driven low-cost sanitation approach would be increasingly adopted in preference to supply – driven approach and a network of production centres and rural sanitary marts would be integral components of the new approach to reach out self-sustainable and people centred sanitation programmes. Moreover, the Plan focused on: larger external assistance (higher priority to rural water supply and sanitation) need to be provided to augment State resources; transfer the responsibility of at least operation and maintenance of Rural Water Supply to the PRIs in line with 73rd Constitutional Amendment Act; adoption of improved low cost technology to save cost of construction and maintenance; free supply of water to people in rural areas should be discouraged and some user charges collected through community participation; private sector participation in construction and maintenance of water supply and sanitation; involvement of NGOs and community be encouraged by the State governments; and water supply links with water-shed development programmes should be made more stronger for better sustainability of drinking water sources.

According to Economy Survey the Central allocation for the ARWSP was enhanced from Rs. 1960 crore in

2000-2001 to Rs. 1975 crore in 2001-2002. Besides, the Pradhan Mantri Gramodaya Yojana (PMGY) is another initiative for the achievement of sustainable human development in the rural areas. PMGY launched in 2000-2001 focuses on village level development on five critical areas i.e. health, primary education, drinking water, housing and rural roads.

The Standing Committee gave comments on the reduction in physical and financial achievement under ARWSP and MNP. The Committee observed that there had been a drastic fall of nearby Rs. 800 crores between 1998-99 and 1999-2000 in the expenditure by States/UTs and implementing agencies. It was also noticed by the Committee that there was a dramatic decrease in the annual percentage growth of physical achievement from our 9 per cent and 8 per cent respectively in previous two years to just over 3 per cent in the last financial year.(Standing Committee on Urban & Rural Development)

4.15 Tenth Five Year Plan: 2002-2007

The new policy initiated in April 1999 has asked the States to implement 'Sector Reform' measures and adopt a demand driven approach based on empowerment of village water and sanitation committees, 10 per cent of capital cost sharing and 100 per cent sharing of O & M cost by users etc. The new strategy thus rightly relies heavily on the use of central/State funding as a critical incentive to drive the sector reform process at both the state and local level. It must be recognized that sector reforms such as improving capacity of the local people to manage water resources and to make them pay for the supply are politically or administratively not popular decisions. The 10^{th} Five Year Plan was an initiative to implement the policies in an effective manner. It was feared in the Plan that in the absence of requisite political and administrative will, the new policy may not be implemented. The modalities of collecting water charges and its use should also be taught through. So far as the Panchyats have relied too heavily on Central and State funding leading almost to spoon feeding and weak implementation capacity. For their capacity building they too should get into the mould of collecting user charges, which is so far avoided by the Panchayats being an unpopular measure.

4.16 Eleventh Five Year Plan: 2007-2012

Tenth Five Year Plan was set up with the following goals for achieving the objective of providing safe and sustainable drinking water supply to all rural habitations:

- Cover all the 'not covered' and 'partially covered' habitations with sustainable and stipulated supply of drinking water in the first two years of the Plan.
- Habitations facing a severe water quality problem are fully covered with safe drinking water facilities on a sustainable basis.
- Cover newly emerged habitations and those which have slipped back to 'partially Covered' or 'not covered' status due to a variety of reasons.
- Coverage of schools in rural areas with safe drinking water.
- Ensure social equity in distribution of assets for drinking water so that scheduled Caste/scheduled tribe (SC/ST) population and other poor and weaker sections are covered fully.
- Tackling problems of seasonal shortage.
- Further, the country is committed to attain the United Nations' Millennium Development Goals (MDGs) which stipulate, inter alia, halving, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation.

4.16.1 Bharat Nirman

Drinking Water Supply was considered one of the six components of Bharat Nirman which had been

conceived as a plan to be implemented in four years, from 2005-06 to 2008-09 for building rural infrastructure. The objective of the said component was "Every habitation to have a safe source of drinking water: 55067 uncovered habitations to be covered by 2009. In addition, all habitations which have slipped back from full coverage to partial coverage due to failure of source and habitations which have water quality problems to be addressed."

It was suggested in the Eleventh Five Year Plan there should be only one scheme of ARWSP in which there would be an element of token community contribution and involvement of user groups/ Panchayats in the selection and implementation of the schemes and for subsequent O&M. The then present Swajaldhara programme with the pattern of Centre-State funding ratio of 90:10 may be discontinued and funds given only for completion of ongoing projects.

ARWSP funding of Centre-State share ratio of 50:50 would need to continue in order to ensure that States give priority to the supply of safe drinking water and more funds flow to this sector. For creating a sense of ownership and for obtaining their commitment to taking on the responsibility of O&M of the schemes on completion it was essential for the community to be involved right from the planning stage. The State Government should have the responsibility of formulating the policy for community/ Gram Panchayat involvement and quantum of community contribution and there could be reduced level of community contribution in case of SC/ ST habitations/ villages and villages/ habitations located in difficult or hilly terrain, or in desert areas or in drought or flood prone areas etc. In exceptional cases of hardship the State Government, in consultation with the Government of India, could exempt communities of identified areas from making a contribution. However, the major source of funding for rural water supply schemes had to be the State and Central Governments and therefore adequate Plan provision had to be provided. Funds were also needed to be provided for involving the community in water quality testing and for strengthening laboratories.

Conclusion

From the analysis of policy and programmes of rural water supply and sanitation, it is evident that sincere efforts have been made by the government to overcome both the problems. Enhanced funds were earmarked under the Five Year Plans but on the whole, limited success could be obtained at the operational level. No doubt, 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. 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.

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