TFYP STEERING COMMITTEE Sr.No.16/2001

REPORT OF

THE STEERING COMMITTEE ON

DRINKING WATER SUPPLY & SANITATION (RURAL & URBAN)

FOR

THE TENTH FIVE YEAR PLAN

GOVERNMENT OF INDIA
PLANNING COMMISSION
FEBRUARY –2002.

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DRINKING WATER SUPPLY & SANITATION (RURAL AND URBAN)

As in the Eighth and Ninth Plans, in the Tenth Plan also the approach to the Water Supply and Sanitation Sector will take into account the following guiding principles suggested in the New Delhi Decalration, which was adopted by the U.N. General Assembly in December 1990:

a) Protection of the environment and safeguarding of health through the integrated management of water resources and liquid and solid waste;
b) Organisational reforms, promoting an integrated approach and including changes in procedures, attitudes and behaviour and the full participation of women at all levels;
c) Community management of services, backed by measures to strengthen local institutions in implementing and sustaining water and sanitation programmes;
d) Sound financial practices, achieved through better management of existing assets and extensive use of appropriate technologies.

In this perspective, the Tenth Plan would envisage 100 per cent coverage of rural and urban population with safe drinking water as per the stipulated norms and standards on a sustainable basis, together with the installation of a quality monitoring and surveillance system all over the country, evolving cost effective and socially acceptable O&M strategies, reorienting the structure and functioning of rural water supply planning and implementing agencies and taking all measures to ensure sustainability of drinking water sources. Tackling the problems of drying of sources, and of the quality of water in several regions, providing a role for the beneficiaries and Panchyati Raj Institutions (PRIs) in Planning and implementation of the water supply facility are other priority tasks. External assistance would be used to augment resources and introduce innovative management practices.

Water is to be managed as an economic asset rather than a free commodity in exactly the same way as any other resource. It should be treated as a resource in its totality and regeneration of sources shall be the responsibility of every user agency, whether drinking, irrigation or other uses. The comprehensive development of the water resources should be opted as a strategy and the village should be considered the focal point for water development. Top to bottom arrangement is necessary to stop wastage. Supply of water to consumers should normally be based on the principle of effective demand which should broadly correspond to the standard of service, that the users are willing to maintain, operate and finance.

The critical need for an effective interface and high degree of functional coordination between the development policy making and planning and implementation institutions is ever increasing. Inter-sectoral coordination should identify mutually functional understanding and reciprocity amongst different development sectors. However, at the operational level, such ideal conditions do not seem to exists in any significant manner. The supervisors and heads of development departments who have hitherto either been indifferent or were not trained to appreciate the nuances and mechanism of the intra-sectional as well as inter-sectoral coordination, should begin to play the roles of "team-managers", so as to promote well directed and sustained team work for effective inter-sectoral coordination. Joint planning by different agencies of the Government and convergent delivery of the services has to be desired. There should be inter-sectoral facilitating team comprising of frontline functionaries of different line departments, which may expect to bring about the convergence at the village level/Panchayat level/Block level.

All possible measures should be taken to remove the disparity across regions and socio-economic groups. To detect poor quality of construction, a system of random checks should be developed.

Tenth Plan – Approach, Thrust & Strategies

Rural Water Supply & Sanitation

In line with the National Agenda for governance, safe drinking water to be provided as per stipulated norms on a sustainable basis to all habitations by March 2004. In order to know the actual coverage status with regard to Rural Drinking Water Supply, re-assessment of actual coverage of rural habitations would be necessary. Basic data is already available with the Deptt. of Drinking Water Supply, which need to be updated periodically through return filing system. For validity, random sampling could be done. Such system could also be developed for urban areas for creating a basic data base. Return filing system could be made compulsory for the PRIs/ULBs for getting Central assistance. For achieving the objective of providing safe drinking water supply to all rural habitations the following prioritisation would be adopted:

i. Highest priority to be given to ensure that the remaining "Not Covered" habitations are provided with sustainable and stipulated supply of drinking water.
ii. Equally important would be to ensure that all the "partially covered" habitations having a supply level of less than 10 litres per capita per day

(lpcd) as also those affected severely with water quality problem are fully covered with safe drinking water facilities on a sustainable basis;

iii. Thereafter other "Partially Covered" and Quality Affected habitations are to be covered.

iv. After providing drinking water supply facility to all rural habitations as per the existing data by 2004, the remaining period of the Tenth Plan would be utilized for consolidation, i.e., coverage of newly emerged habitations and those which have slipped back to "Partially Covered" or "Not Covered" due to variety of reasons.

v. Simultaneous action is needed to identify and tackle habitations where water quality problems have emerged.

vi. Ensure that SC/ST population and other poor/weaker sections are covered fully on a priority basis.

The stipulated norms of supply would be 40 lpcd of safe drinking water within a walking distance of 1.6 kms or elevation difference of 100 metres in hilly areas, to be relaxed as per field conditions applicable to arid, semi-arid and hilly areas. At least one handpump/spot-source for every 250 persons to be provided. Additional water in DDP areas for cattle to be provided, based on the cattle population. Cattle needs need not necessarily be met through piped water supply and could be made through RWH structures/spot sources.

The norms of water supply may be relaxed from 40 lpcd to 55 lpcd in the States where 40 lpcd has been achieved in all habitations. Population/distance/elevation norms for coverage may also be liberalized during the Tenth Plan in respect of States which have achieved full coverage as per the existing norms, subject to cost sharing by the beneficiaries.

Emphasis must be laid on stake-holders' participation at all levels, from planning, design, location, implementation and management. The present practice is that the water supply projects are designed and executed by the implementing departments and passed on to the end-users. The experience has brought out the unwillingness of the Panchayats to take on the responsibility for operating and maintaining them. The State Governments do not have an effective machinery at the village level to maintain the assets. A radical change in the management system is required. Rather than being supply-driven, the system should be demand-driven, and should take into account user preferences, private connections and related issues. People should be aware of the technologies and given the option to select the technology, as well as meet the expenditure on the project. People's participation at all stages of the project implementation is likely to help get over the problems of sub-

standard materials, poor workmanship and inadequate maintenance. These problems should be addressed to in the Tenth Plan.

As per Article 243G of the Constitution, the Legislature of a State may, by law, endow the Panchayats with such powers and authority as may be necessary to enable them to function as institutions of self-government and such law may contain provisions for the devolution of powers and responsibilities upon Panchayats at the appropriate level, subject to such conditions as may be specified therein, with respect to

(a) the preparation of plans for economic development and social justice.

(b) The implementation of schemes for economic development and social justice as may be entrusted to them including those in relation to the matters listed in the Eleventh Schedule, which inter alia, includes Drinking Water and Maintenance of community assets. As such, PRIs should be the key institutions for convergence of drinking water supply programme at the ground level.

- Institutions of local self-governance should be strengthened and entrusted with all activities in water supply, sanitation, hygiene and nutrition. Various development functions may be handled by the single Institution of the Gram Panchayat thus increasing the possibility of convergent planning and delivery of services. The financial and administrative authority has not been devolved to them to the extent needed.
- Integrated water supply and sanitation programmes will be increasingly implemented during the Plan. The implementing machinery in the Centre and the State will require oganisational restructuring to work in a Mission mode with guidance from the Rajiv Gandhi National Drinking Water Mission Authority and its empowered committees. Micro water-shed based master plans should be prepared to ensure the sustainability of water sources by taking care of demand and supply. The inputs of professional institutions, NGOs and Community Based Organisations (CBOs) should be inducted into planning, development and management. At the same time, integrated water use and conservation methods should be adopted.
- All possible measures for rain water harvesting and ground water recharging must be taken. There should be continuous monitoring of the sources, so that the habitations once covered do not fall back in the category of uncovered, for which interdepartmental coordination at Block level need be activated.
- Water supply links with water-shed development programme should be made more stronger for better sustainability of drinking water sources.
- Traditional sources shall be identified, strengthened and developed with community involvement. Rehabilitating the existing village tanks, creating detention basins by storing rain water in local depressions, abandoned mines/quarries etc. for water harvesting for the development of water resources need be encouraged. Small dams should be encouraged, because micro water-shed

area is more efficient for water conservation. To avoid the evaporation losses from such small storages, the underground syphon should be used, which would conserve the water and recharge the aquifer.

- Recycling of waste water should be developed as a part of habit. Waste water should be recycled/ used for recharging ground water sources through soakage-pits.
- To reduce the evaporation losses which is at times 30% of the total storages, open storage should be avoided and closed contour trenches should be developed as a water harvesting structures.
- The cropping pattern in drought prone areas should be sensitive to local availability. Affluent farmers shall be discouraged from water intensive cash crops. Agriculture bore-wells should not be allowed to be deeper than drinking water bore-wells. Blocking of nallahs for agriculture needs only be discouraged.
- Funds for implementation of work should flow from Centre to the District Committees to Panchayats/beneficiaries.
- As of now, the rural water supply schemes are conceived as grant schemes. It is necessary to bring in the concept of institutional funding to this sector for mobilization of additional resources for implementation as well as operation and maintenance. The role of financial institutions like HUDCO, LIC, IDFC, ICICI etc. in mobilizing additional resources would be vital and their potential should be tapped.
- There are more than 3.5 million hand pumps and over one lakh piped water supply schemes installed in the country under the Rural Water Supply Programme. The total estimated cost for operation and maintenance of the above at the present value would be around Rs.2000 crore per year (10-15% of capital cost). A large portion of installed schemes remain non-functional and many of them go permanently defunct due to lack of proper maintenance and repairs for want of funds. It is therefore necessary to give highest priority to operation and maintenance and evolve suitable institutional and funding arrangements through community participation to bring them back to functional levels. Decentralise the operation and maintenance by making the beneficiaries and Panchayats stake-holders in the system and responsibility to rest with the Panchayats. Funds under MNP and ARWSP each could be utilised for operation and maintenance. Most States face resource problems and, therefore, tend to neglect maintenance. It is necessary to evolve an effective mechanism for ensuring proper operation and maintenance of existing assets. " Village Water Committees" should be actively involved in the maintenance of drinking water supply schemes and a system of beneficiary participation introduced. Participation of village women and NGOs/Voluntary Organisations should also be encouraged. The mechanism and the funds available

under TRYSEM should be used to impart training, so that trained manpower can be locally mobilised for the maintenance of the assets.

- Major repairs and replacement/rehabilitation may be allowed as Plan schemes.

- In view of increasing water quality problem and health hazards there from , it is necessary to institutionalise water quality monitoring and surveillance systems. Water quality surveillance should be done by an independent organization, more appropriately by the Health Department who should be provided with adequate budget provision for the same. Central assistance under the Centrally Sponsored Accelerated Rural Water Supply Programme (ARWSP) shall be utilised for setting up stationary as well as mobile water testing laboratories in all the district headquarters.
- The community has to be made quality conscious through health education and awareness compaign and water testing kits shall be made available to them.
- Technology choice, in case of water quality related schemes (Fluoride, Iron, Arsenic, TDS), shall be District/Block specific.
- In specific locations, like remote islands, desert and other inaccessible areas, where conventional energy sources are not available or would be a costly proposition, one of the options to remove chemical contaminants from water for drinking purpose could be solar distillation through "Solar Stills" at household level or community level. Solar Still is a simple device. Professional Solar Stills are generally made of glass over formed sheet metal. But the base can be made of any thing that will hold up outdoors. The most important elements of the design are the sealing of the base with black, high temperature silicone rubber. As sun-light warms the black silicone bottom and heat is transferred to the water, the top of the water evaporates on to the inside of the glass cover, which is tilted towards the fresh water drain. Approximately, 8 sft. of glass cover will distill around 1 gallon (4.5 litres) of water per day over 5 hours of full sunlight. The capital cost of a Solar Still with 10 sft area would be around Rs.4000/- . Though the technology is appropriate for the above mentioned specific areas, the device may become redundant, if sludge removal and cleaning is not done regularly. Community awareness, motivation and participation would, therefore, be a key to success of the technology. This technology is being used in an island of UT of Lakshadweep. This technology could also be used to meet the drinking water needs in schools.
- The three problems in sustainable supply of drinking water viz., scarcity, brackishness and excess fluoride are found to be manifested mainly in the low rainfall and high potential evaporation areas of the country. Solutions to all these problems should therefore involve an integrated water management approach. Discrete and pipe oriented solutions of these problems would not be very effective. Water harvesting and conservation measures in a watershed as a natural

physiographic unit with emphasis on direct or indirect artificial recharge of aquifers by utilising surplus run off water can lead to a simultaneous mitigation of all the three problems.

- Rural water supply and rural sanitation facilities are essential ingredients in the total programme for rural development. There are many other allied elements which go into the total process of rural development. These include infrastructural aspects like land management, soil conservation, afforestation etc and social aspects like primary health care, removal of illiteracy, women's welfare, child nutrition, immunisation etc. It is desirable that the thrust and implementation of as many of these programmes as possible get converged, in order to provide for integrated rural development with village as one unit on the one hand, and 'area' comprising of several adjacent villages together, on the other.
- In order to address the problem of sustainability**,** the Govt. in March 1999 approved reforms to associate active participation of the community in rural water supply programme. The implementation of the new policy has already commenced. State Governments have identified 63 pilot districts to introduce reforms. The reform projects being implemented by the state Governmen6s incorporate institutionalisation of community participation through capital cost sharing and shouldering of full O&M responsibilities in the rural water supply programme. The experience gained during the implementation of these pilot projects would be effectively utilised while expanding the reform package to other districts in the second phase, so as to ensure a satisfactory and sustainable rural water supply programme in the whole country. For success of the proposed reform process, it would therefore be necessary that similar reforms are also adopted in other sectors such as increasing user-charges for irrigation and industry which also consume the available water resources.
- 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 government levels. As such, it is important that funding conditionality for disbursement of Central funds to state administrations, and from state administrations to Panchayat Raj Institutions and/or local administrations, be explicitly defined both in terms of conditions which must be met and activities for which funding can be applied.
- Resources for IEC/HRD now given for different sectors, particularly those which relates to or have direct impact on health of the people, such as public health, nutrition, drinking water, sanitation etc. should be pooled together at District/State level to the extent possible.
- NGOs are found to be particularly good at out reach. NGOs have the advantage of being able to sharply focus on, concentrate on and penetrate deeply into communities with whom they have bonds of trust.

- All existing social organizations, women self-help groups, cooperative societies, civil societies, educational institutions, private institutions etc. should be drawn for effective implementation of a large scale sanitation programme.
- Total Sanitation programme should include safe disposal of night soil, rain water, domestic liquid and solid waste and not be restricted to construction of latrines only.
- Total Sanitation Compaign (TSC) approach of the Restructured Centrally Sponsored Sanitation Programme (w.e.f.1.4.1999), which is based on the successful model of Midnapur (West Bengal), may be considered for adoption in other districts of the country with appropriate changes to suit the local conditions and perception.
- School Sanitation (toilet facility) should be given highest priority to inculcate safe hygienic habits among school children.
- Subsidy only to BPL family.
- In order to mobilize required funds for rural sanitation, the financial institutions/Banks including NABARD and nationalized Banks should extend loan at lower interest rates to the States for provision of sanitation facilities. Low cost loan scheme like micro-credit through NGOs should be adequately supported. Various fiscal concessions like cutting excise duty/sales tax and lower electricity charges should be made available to the manufacturers of low cost sanitary materials. Private participation should be encouraged in setting up of Building Centres and Sanitary Marts in rural areas to provide cost effective technology of sanitation to the rural households.
- Creation and maintenance of data base and information base regarding various technological options, hydro-geological information, availability of building materials, design and implementation etc. at the block level to be disseminated through the panchayts and snitary marts.

Urban Water Supply & Sanitation

- The attention given to Urban Water Supply and Sanitation in previous Plan periods has proved to be inadequate and needs to be made good in the Tenth Plan with proper focus.
- Sector reform has become imperative and inevitable for reaching the desired level of service and sustainability. There is a need to develop replicable models with regard to institutional arrangement for designing, implementing and operation and maintenance of water supply and sanitation schemes and funding thereof in urban areas also as already developed by the Deptt. of Drinking Water Supply in Sector Reform Programme of rural water supply.

- Though Budgetary allocation has to continue, the nature and conditions of such support and the priorities need drastic change, along with institutional changes at National , State and local levels and should be such as to promote access of ULBs to institutional finance for their infrastructural financing, and in particular water supply and sanitation.
- Levy of user-charges, at least on par with the average costs, need to be made and collected. The immediate target should be to achieve the required resources for current expenses (O&M) of the system, but should also extend to building up funds for augmentation and improvement schemes.
- The Centrally Sponsored Accelerated Urban Water Supply Programme for Small Towns (AUWSP) should be modified to invariably have the components of Water Supply, Waste Water Treatment, Solid Waste Management and Low Cost Sanitation (LCS as a parallel prgamme) and not Water Supply alone. Local Body shall commit to levy user-charges, to be fixed by an independent commission or authority. Scheme should leverage institutional finance at least equal to grant assistance from GoI. The ULB shall undertake reforms in accounting billing and collection etc. The maximum subsidy from the GoI shall be 50% of the project cost.
- In bulk Water Supply and Treatment Schemes BOOT approach is feasible and should be permitted in all Water Supply projects including AUWSSP.
- The principle of "ownership" of the project by the ULBs, which means fullest involvement and commitment for subsequent maintenance including the responsibility to levy user-charges and recover adequate revenues at least for O&M should be made a cardinal principle in all CSSs in the sector.
- State Government should agree to permit autonomy in Water Supply and Sanitation operation including the subject of levy of reasonable user-charges and appointment of required personnel.
- Central assistance should be provided exclusively for reforms of the sector. HUDCO should also be a partner in the reforms.
- The low cost sanitation scheme should be rejuvenated and implemented with renewed vigour. Community and "pay & use" toilets should inevitably be constructed and maintained with the involvement of community based organisation or NGO for proper maintenance of the unit.
- Solid Waste Management: Transport vehicles for carrying solid waste may be exempted from excise, sales tax and other duties. Private companies entering in this sector should be granted soft loans for the installation of compost-plants, land on lease for a period of 30 years , tax holiday, accelerated depreciation, legal and financial help and support. The organic manure produced in these compost plants should be granted some subsidy as in vogue for fertilizers.

- Very strict enforcement and implementation of "Bio-medical", "Municipal - Solid Waste" and "Hazardous Waste" rules.
- Government support to the Local Bodies should emphasize on a sustained long term basis rather than making available one time financial help for project formulation, MIS, training and motivation of municipal staff as also orientation courses for the elected representatives, public awareness generation in so far as SWM is concerned.
- Rationalisation of Municipal tax and service charges at least to recover the cost of solid waste management.
- Central and State Governments support to private enterprises in the form of venture capital to be routed through the State nodal agencies who can be joint-venture partners.
- GoI should set up a Water and Sanitation Commission for Urban areas to support the reform process with technical, managerial and financial assistance. All programmes in the Water Supply and Sanitation Sector for Urban areas including the modified AUWSSP should be implemented by this Commission with the Government providing budgetary support. Government should also enable the Commission to access market funds and funds from international funding agencies who come forward to assist in the reform of the sector.
- Investment needs must be supplemented from institutional finance.
- Private Sector participation in the form of service contracts and management contracts should be attempted in appropriate cases.
- The years 2002-2012 may be treated a Water and Sanitation Decade so as to give more focus on the issues relating to Water Supply and Sanitation.

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No.PC/WS/10(2)1/2000
Government of India
Planning Commission
(Water Resources Division)

Yojana Bhavan.
Sansad Marg,
New Delhi-110001.

the 21st November,2000.

O R D E R

Subject: **Formulation of Tenth Five Year Plan (2002-2007) - Constitution of Steering Committee on Drinking Water Supply and Sanitation (Rural & Urban).**

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With a view to formulate the Tenth Five Year Plan, it has been decided to set up a Steering Committee on Drinking Water Supply and Sanitation (Rural & Urban) under chairmanship of Shri Som Pal, Member, Planning Commission. The composition and terms of reference of the Steering Committee are as under:

Composition

1.	Shri Som Pal, Member, Planning Commission.	Chairman.
2.	Secretary, Deptt. of Urban Development.	Member
3.	Secretary. Deptt. of Drinking Water Supply	Member
4.	Secretary, Ministry of Environment and Forest.	Member
5.	Secretary, Ministry of Water Resources.	Member
6	Ms. Krishna Singh, Member-Secretary , National Commission on Population, Planning Commission.	Member Member
7	Adviser, CPHEEO, M/o UD & PA.	Member
8	Adviser, National River Conservation Directorate	Member
9	CMD, HUDCO.	Member
10	Chairman, Central Pollution Control Board, New Delhi.	Member
11	Chairman, Central Ground Water Board.	Member

12 Dr. Rakesh Mohan, Director General, Member
National Council for Applied Economic Research.
13. Prof. K.J. Nath, All India Institute of Hygiene & Member
Public Health.
14. Dr. B.B. Sundaresan, Ex. Vice Chancellor, Member
Madras University.
15. Shri S. Prakash, Ex. Engineer-in-Chief, Member
Delhi Water Supply & Sewage Disposal Undertaking.
16. Dr Bindeshwar Pathak, Founder Sulabh Member
International Social Service Orrganisation.
17. Shri Anil Agarwal, Director, Member
Centre for Science & Environment , New Delhi.
18. Shri S.S. Chakraborty, Secretary, Member
Ramakrishna Mission, Calcutta.
19. Adviser(Water Resources), Planning Commission. Member-Secretary

Broad Terms of Reference

i. Develop a perspective on demand and supply for the next two decades say, by 2021 taking into account the present status and the ground realities.
ii. Evolve a long-term strategy for provision and Operation & Maintenance of drinking water supply and sanitation facilities which should be contributory to the process of economic development in a sustainable framework.
iii. To formulate objectives, policies, strategies and methodology for the Tenth Five Year Plan, suggest modifications, if any, in the existing schemes, formulate new programmes, designed to address the specific problems in the water supply and sanitation sector.
iv. Recommend viable and efficient policy options with particular reference to financing, development of compatible institutions and planning systems in a de-centralised set up.
v. Analyse the pattern of financial flow in the Central and State Governments' Budgets in the recent Five year Plans and suggest proposals for changes/enhancement in the allocation process of Central and State budgetary resources for this sector.
vi. To review the current status of operation and maintenance of rural water supply and sanitation schemes and suggest policies, strategies , ways and means for effective operation and maintenance of the assets created including transfer of responsibilities to PRIs during the Tenth Plan.
vii. To make a critical review of the achievements, roles and involvement of the International and other External Support Agencies like the WHO, UNICEF,

UNDP, World Bank and bilateral donors and define their future roles keeping in view the national policies, objectives and priorities.

2. The chairman of the Steering Committee may constitute Sub-Groups and co-opt other member(s) as deemed necessary.

3 Expenditure of the members on TA/DA in connection with the meetings of the Steering Committee will be borne by the respective Departments/Ministries/ Organisations. Expenditure in respect of non-official members will be borne by the Planning Commission as per rules and regulations of TA/DA as applicable to Group A Officers of the Government of India.

4 The Steering Committee should submit their report by 31st March 2001.

Sd/-
(T.R. Meena)
Dy. Secretary (Adm)

To

Chairman and all Members of the Steering Committee.

Copy also forwarded for information to:

1. PS to Dy. Chairman, Planning Commission.
2. PS to MoS for Planning & Programme Implementation.
3. PS to Members, Planing Commission.
4. Sr.PPS to Secretary, Planning Commission.
5. All Advisers/Heads of Divisions, Planning Commission.
6. Dy. Adviser(PC).
7. Under Secretary(Adm.I) (Adm-I Branch)
8. PA to Dy. Secretary (Adm)

Sd/-
(T.R. Meena)
Dy. Secretary(Adm)