



# INDIAN REFORM INITIATIVES IN WATER SECTOR

Keynote Address

by

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I feel honoured to participate and address this august gathering of water sector professionals and practitioners, and the World Bank executives. A few weeks back on the 22nd of March 2002 all over the world we celebrated the **10th anniversary of the World Water Day** with the theme of **'Water for Development'**. Lot of water has flowed since the **Rio Declaration**. The **Agenda-21** of the Declaration called for action to protect the quality and supply of fresh water resources for socio-economic activities. During September 2002, many of us will meet at Johannesburg for the **World Summit on Sustainable Development** which will take stock of development issues including those of drinking water. In the journey from **Rio to Johannesburg**, water has moved to the centre-stage in the development oriented deliberations. Water is so important for sustenance of life and environment conservation that the United Nations General Assembly has declared **Year 2003** the **'International Year of Fresh Water'**.

## GLOBAL SETTING

The challenge in water and sanitation is indeed a challenge of monumental proportion. The figures are well known to all of you: globally over a billion people still lack access to safe and reliable water sources; another 2.4 billion do not have proper sanitation services, and more than 5 million people die each year from water related diseases<sup>1</sup>. Though access to improved water supply and sanitation facilities has been increasing, it is just sufficient to keep pace with population growth.

In the year 2000, **global water supply coverage was 82 percent but sanitation coverage was at 60 percent**. There is clear rural-urban divide. Urban water supply coverage was at **94 percent** whereas rural water supply coverage stood at **71 percent**. In case of sanitation, such rural-urban division is more prominent - Urban sanitation coverage was **86 percent** whereas rural sanitation access was only **38 percent**<sup>2</sup>. Amongst the regions, majority of people living in Africa, Asia, Latin America and the Caribbean do not get served with potable water and proper sanitation. These regions clearly reflect problems of poverty and lack of proper hygiene. If measures of reliability of services and sustainability of natural resources could easily be captured in numbers then the figures would surely be even more damaging.

It is clear that given the importance of water resources and service delivery to economic growth and poverty alleviation, we cannot wait any longer before finally resolving the challenges in water and sanitation.

<sup>1 & 2</sup> Global Water Supply and Sanitation Assessment 2000 Report. (2000) WHO and UNICEF  
- Vision 21, A Shared Vision for Hygiene, Sanitation and Water Supply - by Water Supply and Sanitation Collaborative Council.

The sector is characterized by **serious under-performance**, and this crisis will continue unless there is a fundamental reform of service arrangements. Consensus is growing on the principles of successful approaches, and many local success stories have been identified. However, these successes are not being replicated on a large scale in the countries where they have been implemented, nor are they transferred sufficiently to other countries or regions.

These **problems are compounded** on account of increasing water resource constraints, population pressures, higher service expectations, and environmental challenges, besides lack of political commitment, lack of sector coordination, lack of community involvement, inadequate finances, unskilled human resources and poor operation and maintenance.

Inadequate coverage, poor quality, as well as unreliable and unsustainable supply of water have an adverse impact on the socio-economic development in the developing countries. **WHO has estimated that water related diseases contribute to nearly 1.8 million child deaths each year globally**<sup>3</sup>. Millions of people all over the world, mostly in the developing countries, have been suffering from water related illness. Though inadequate provision of water supply due to resource constraints may play a part, the major reason for this dismal situation is the misdirected emphasis on investing in physical infrastructure without ascertaining its utility or ensuring its maintenance and sustainability. As a result, the desired impact on the socio-economic development, health status and physical quality of life of the targeted population has not been fully realised.

It is becoming increasingly evident that national governments alone, even with the assistance of international organizations, will not be able to provide the necessary expansion of quality services to a growing population. **The role of governments has to shift from service provider to that of a facilitator for providing financial and policy support to the communities and their institutions for fulfilling the desired levels of services on a sustainable and equitable basis.**

The **private sector** is also becoming an increasingly important player in the management of existing utilities. The potential for increased private participation is considerable, particularly for the management of service delivery in the urban areas, even in developing countries. Suitably designed contracts and service delivery arrangements can ensure better focus even for the urban poor. However, private sector participation in the extension of services to the poor in rural areas might be somewhat more difficult, though there is scope for restructuring of the centralised water sector **institutions and sector managerial capacity for the larger regional schemes**. There is also scope for the restructuring of regional utilities, with private

sector participation, serving a geographical area that includes both rural and urban customers to improve financial and physical efficiencies. On the rural side, we find that local government-led and community-based models of delivery of rural public services are providing sustainable solutions.

While the need for additional financial resources has traditionally been stressed, the **emphasis is now to be shifted to conducting** mass media campaign to create awareness about the need and benefit of reforms amongst the opinion makers and development practitioners. There is an increasing awareness of the need to strengthen technical and managerial capacity of different tiers of local governments and the communities for implementing different and diverse models of service delivery.

As all of you are well aware, there are a number of examples in the developing world of the principles that I have mentioned earlier. I will now focus on where India stands in water and sanitation sector and what are our recent reform initiatives in the water sector.

## INDIAN SCENARIO

Under the Indian Constitution, and in our federal democratic set up drinking water comes within the domain of the State Governments (Provincial Governments). In fact, the 73<sup>rd</sup> Constitutional Amendment has gone a step forward. It mandates that responsibility for drinking water and sanitation services should be with Local Governments. Various States in India are at different stages of giving effect to this Constitutional mandate. The Sector Reform Project and Total Sanitation Campaign Programme of my Ministry and the World Bank funded Rural Water Supply and Environmental Sanitation projects, which I will discuss in some detail later, are helping States to move in this direction. The Central Government endeavors to supplement the efforts of the States by providing financial and policy support.

In order to provide safe drinking water in the rural areas we have set the norm of 40 liters per capita per day (lpcd) and additional 30 lpcd is taken for animals in hot and cold desert eco-systems. Further, drinking water source for 250 persons in a habitation is provided. Access to drinking water in the rural areas is determined in terms of distance - a source should exist within 1.6 kms of the habitation in plains or 100 metres elevation in hilly areas. Taking into account these norms, the current level of coverage of drinking water supply to the 1.4 million habitations in India is: 89 percent 'fully covered', 10 percent 'partially covered' and 1 per cent 'not covered'.

Despite the impressive coverage of provision of safe drinking water facilities in the rural areas, there is a great deal of concern about both the quality and sustainability. The Accelerated Rural Water Supply Programme (ARWSP)<sup>4</sup> was earlier totally

<sup>3</sup> World Health Report 1999 published by World Health Organization - Geneva.

<sup>4</sup> "Guidelines on Accelerated Rural Water Supply Programme" (2000), Department of Drinking Water Supply, Ministry of Rural Development, Government of India.

Government run without the participation of stakeholders. This has created a scenario, in which users consider water a free (service) commodity with the Government having the entire responsibility for running the operation. This has stifled the development of more efficient, low cost options for service delivery and denied users as consumers the opportunity to demand better services.

The Government of India envisages provision of safe drinking water to all its rural habitations by 2004. In spite of good coverage, people are not fully satisfied with the available service. There are systems falling into disrepair due to poor maintenance, water shortages in summer months sources drying up mainly due to depletion of ground water level; increasing incidence of water quality problems, damages due to recurring floods and droughts or other natural calamities and increasing aspirations.

With the rapid population growth water is becoming an increasingly scarce resource in the country. The provision of extensive irrigation infrastructure over the past decades is one of India's major achievements. **However, unregulated and overexploited ground water extraction has resulted in groundwater depletion and the resultant decline in water quality.** In India, we have water quality problems in about 217211 habitations. Excess fluoride, arsenic, nitrate, iron and salinity are causing health hazards for large number of people. We have, however, **eradicated fully Guineaworm infestation in India**<sup>5</sup>. Further, we have launched programmes on mission mode to mitigate these water quality problems. Despite substantial investments, water quality problem continues in the country. This situation will only worsen as demand increases. Inter-sectoral allocations, planning and management of this fragile resource has become one of the major issues for the sector.

#### Box 1: Strategy for tackling water quality

The Govt. of India has embarked on a five-pronged strategy to mitigate poor quality of drinking water:

- Treatment systems for the household or community
- Alternative problem-free zones in groundwater;
- Mini piped water supply that use deep aquifers;
- Regional piped water supply using mainly surface water;
- Dual mode of water supply that provides potable water for drinking and cooking purposes alone

Rural sanitation remains one of the biggest development challenges in India and, indeed, globally in much of the developing world. A radical shift in approach is needed in order to reach the Millennium Development Goals. We define sanitation as a package of: safe handling of drinking water, disposal of waste water, safe disposal of human excreta,

solid waste disposal and personal and domestic hygiene. About 20 percent of rural Indians have access to some form of latrine (and surveys have shown that many of these latrines are not used for the purposes they were designed), but perhaps more critical are the poor hygiene practices common in much of the country and the region. Although the concept of sanitation has undergone a qualitative change over the past few years, we have made very little real progress in improving the sanitary conditions in the villages of India.

Since the beginning of the Sixth Five Year Plan (1980-85) and the launch of the International Drinking Water Supply and Sanitation Decade (1981-90), India has increased its commitment to the water supply and sanitation sector. **Sector investments** have increased and presently constitute a significant proportion of the national budget (about 3 percent of which 50 percent is allocated to rural areas and the rest to urban areas). Government of India formulates policies, sets standards and provides technical as well as substantial financial assistance to the States. Central Government funding constitutes about 40 percent of the total investment in the sector. The remainder is provided by the States. About 5 percent of the sector investment comes from External Support Agencies. Since independence, **Central and State Governments have collectively spent more than Rs.360 billion (US\$ 7.5 billion) for rural drinking water sector. However, much more remains to be invested. We have planned to utilise about Rs.280 billion (US\$ 5.83 billion) during 10th Five Year Plan Period (2002-07)**<sup>6</sup>.

## PARTNERSHIP WITH THE WORLD BANK

The Government of India and the World Bank partnership over the past decade has made impressive progress in developing and implementing innovative strategies to improve the Rural Water Supply and Sanitation sector. These accept the global consensus that “**management at the lowest appropriate level**” is an important prerequisite for sustainability. The strategy has changed from the top-down, fully Government implemented approach in Maharashtra to a community participation approach in Karnataka through a “**demand responsive approach in partnership with NGOs and user groups**” in Uttar Pradesh, and finally to “**community driven development**” in Kerala and Karnataka. The successive projects show the evolution of the key strategies needed to improve sustainability. The Bank-assisted Rural Water Supply and Sanitation project [popularly known as *Swajal* (pure water)] in Uttar Pradesh has been acknowledged nationally and internationally as the best practice example in implementing a demand responsive approach. Similarly, the participatory evaluation methods of sustainability monitoring using the **village immersion process** that was pioneered in Karnataka has become an integral part of the country's implementation supervision.

<sup>5</sup> WHO notified India free of Guineaworm in February 2000.

<sup>6</sup> Government of India has already committed for Rs.135 billion (US\$ 2.81 billion) investment for the next 5 years and balance expected to come from the State Governments and External Funding / Supporting Agencies

In 1998, India, with the Bank's support, developed a national sector strategy for Rural Water Supply and Sanitation that was widely discussed with the States and the External Support Agencies. This strategy extensively drew upon the successes of these projects. India is now not only committed to institutionalise a **demand-driven, community-based approach for rural water supply across the country**, but also implementing in 64 districts of 26 States. The Bank and the Government of India have agreed on a generic project/programme design, that incorporates the same Government of India basic reform principles. We are confident that in future, World Bank's funding will look at the issue of scaling up, supporting institutional change of the traditional agencies, and financing of the local government and community partnership. As these Bank financed projects innovate so can Government of India Projects.

India has enjoyed a long history of support from the Bank in a multitude of **Water Resource Management initiatives**. Success in participatory irrigation management focusing on watersheds and other water management projects have been the harbinger to many innovative irrigation management initiatives in India.

We have also forged an important partnership with the Water and Sanitation Program-South Asia (WSP-SA) through a formal **Strategic Alliance**. The WSP is a Bank executed programme funded by several External Support Agencies including DFID, SIDA, SDC, and Dutch Aid/WSP-SA is playing a pivotal role for capacity support in the implementation and innovation of the programme. I must add that having access to the supporting hands of the Bank and its Agencies, Water Sector will have desired development.

## REFORM INITIATIVES IN INDIA

### Rural Drinking Water

On the **rural side**, we have already embarked on a very bold sector reform programme and are in the process of implementing what is probably the **world's largest Central Government supported rural drinking water and sanitation programme based on demand-responsive principles**. Reform primarily aims at the empowerment of the village community and their institution and as well as emphasizes the inclusion of women, socially disadvantaged and poor sections of the society. NGOs and CBOs play prominent catalytic role to provide capacity support to the people, community and local Governments.

The programme is based on the **subsidiarity principle**, and recognizes that services should be delivered by the lowest appropriate level. The responsibility for the delivery of water and sanitation services vests with the local Governments.

We adopt the following **principles** to allocate sector reform funds to States: (I) the adoption of a **demand-driven approach** and empowerment of villagers; (ii) a focus on village level capacity building; (iii) the maintenance of an **integrated approach** to water supply, sanitation and hygiene promotion; (iv) a requirement for **partial capital cost recovery** and **full operations and maintenance** (O&M) financing by users; and (v) the promotion of groundwater conservation, rainwater harvesting.

Central and State Governments come together to address the priorities of (i) supporting effective and inclusive decentralisation by empowering local communities in rural areas; (ii) building and implementing **consensus on key policy and institutional reforms**; (iii) funding investments in rural infrastructure linked to reforms in service delivery; (iv) using **NGOs and alternative service providers**; (v) promoting cost recovery; (vi) **targeting the poorest** and most vulnerable groups; and (vii) integrating allied interventions for maximum impact.

#### Box 2: Decentralized drinking water and sanitation programme

In order to improve the sustainability of resources and systems, Government of India has embarked on an ambitious program of demand-responsive delivery of water and sanitation. The central principles of the programmes are:

- Community and Local Government to plan, implement, operate and manage Water Supply Schemes;
- Shift State Government from the role of services Provider to Facilitator;
- Empowering of the Gram Panchayats and User Groups;
- The participation of communities in their own Water Supply and Sanitation systems;
- Design systems based on the willingness of consumers to pay for particular levels of service: a portion of the capital cost and all future recurrent costs

The program is currently being increased from 64 to 75 districts for water supply, and from 163 to 250 districts for sanitation that commit to the reform principles.

Under this programme, we have allowed communities and local institutions a considerable degree of **flexibility** in choosing the appropriate institutional model for service delivery suited to their own specific local context. By introducing this programme, we have challenged the traditional top-down model of delivery of water supply services by State Government owned Engineering Departments and Agencies. Our experience has shown that delivery by agencies that are far away from users leads sometimes to the creation of unsustainable schemes that are, more often than not, unsuited to meeting the requirements of those whom they are designed to serve and, therefore, unsustainable.



Under the programme we hope to achieve **environmental, institutional and financial sustainability**. The programme draws its **lineage** from the World Bank's Swajal, Karnataka and other rural water and sanitation projects of the mid- to late-1990s. We have (as has the World Bank), also allowed the natural progression from the earlier Project Management Unit(PMU)-supported models of delivery to those that are more directly rooted in local government institutions. These earlier models had effectively demonstrated that the traditional top-down approach could be replaced with a better and more sustainable alternative which is better suited and responsive to user needs. The principle that users' pay for services will ensure financial sustainability. **Peoples' voice and choice** to adopt technological options **acceptable** to them, **affordable** by them and **adaptable** for them brings in sustainability

This programme has so far sanctioned Rs.19.40 billion (US\$ 400 million) of Government of India budgeted resources - with no external assistance involved - for 64 districts spread across 26 States covering a population of over 70 million. The US\$400 million provided for the program is by no means a cap - we are committed to providing funds under the reform mode so long as there is a demand for these funds, and projects are on right path. We are also committed to scale up the programme slowly but steadily beyond the initial pilot districts.

Government of India has recognised the need to improve the functionality and sustainability of the sector and for the Sector Reforms Projects (SRP). We have this year reserved **20 percent** of the Central funds allocated for rural water supply, about **Rs.3.84 billion (US\$80 million)** annually to States implementing reforms in the sector.

### Box 3: Fact Sheet on Sector reforms Projects for Water Supply

- Launched in April 1999;
- Operated in 64 Districts;
- Being expanded to 75 Districts;
- Rs. 19.40 billion (US\$ 400 million) Project Outlay;
- Rs. 5.63 billion (US\$ 117.3 million) released;
- Population being covered – 70 million

I believe that the often stated dichotomy between community approaches and local government approaches is, essentially, artificial. No one can dispute that our common goal is good **local governance** and that this results from a combination of empowered communities and efficient and accountable local governments that are responsive to their constituents. Therefore, Government of India and States are now promoting the concept of setting up the **Village Water Supply and Sanitation Committee (VWSC)** as a Committee of the Local Government. This enables drawing of comparative advantage of Committees and ensures long term institutional sustainability.

Further, local government **responsibility for delivery** does not necessarily translate into delivery by local government agencies. In fact the local government, in consultation with the community can choose the appropriate agency responsible for delivery - this could be the **community itself**, or a **cooperative** or **public institution** or, indeed, the **private sector** as the agent of delivery. The programme allows for all of these possibilities. The ultimate model chosen will depend on the local circumstances, the viability of the operation, the nature of the scheme (single- or multi-village) and the availability of alternatives.

From the **national perspective**, the success of the water sector reform has implications for all round rural development and goes well beyond the water sector. If through the water sector reform programme we can create **robust institutions for good local governance**, these can be effectively used for the delivery of a host of other local public services which will have a **positive impact on rural development for poverty reduction**. As the Minister for Rural Development for the Government of India, I have the responsibility to facilitate local government delivery of a number of important rural services. The Ministry also has the responsibility for creating Panchayat Raj Institutions (PRIs) of effective and good rural self-governance that could take on the responsibility for the **delivery of all rural services** including water supply, education, health, rural roads, electricity etc. I am pleased to **inform you that the recent generation of World Bank assisted rural water supply and sanitation projects** and also the **Government of India Sector Reforms Project and Total Sanitation Campaign Programmes** are proving to be effective vehicles of strengthening decentralisation in the country.

## Rural Sanitation

Government policy with regard to rural sanitation has undergone a major shift over the past few years. It has moved away from providing state-level subsidy based on need towards a more demand-based strategy. The need for targeted awareness creation has been recognised as the way to motivate villagers to improve their sanitary conditions. My Ministry is currently engaged in the innovative ways of igniting demand for sanitation through behavioural change while appropriately directing subsidies to supplement community efforts.

Under Sector Reform process **Total Sanitation Campaign(TSC)**<sup>7</sup> has been initiated since April, 1999. Total Sanitation Campaign Programme is community led and people centred. The components of the Total Sanitation Campaign are - construction of household latrines, construction of sanitary complex for women, toilets for schools, toilets for Balwadi/Anganwadi etc. Besides, Information, Education and Communication is fully supported. The main features of the Total Sanitation Campaign

<sup>7</sup> "The Guidelines of Central Rural Sanitation Programme." (2001) Department of Drinking Water Supply, Ministry of Rural Development, Government of India.

are (i) shift from high subsidy to low-subsidy regime - from Rs.2000/- to Rs.500/- per latrines, (ii) greater household involvement and participation, (iii) technology options as per choice of the households, (iv) stress on Information, Education and Communication (IEC) as part of the Campaign, (v) emphasis on School Sanitation, (vi) linkages with various rural development programmes, (vii) involvement of NGOs and CBOs and local groups, and (viii) promoting access to the institutional finance.

The Total Sanitation Campaign has been launched in 163 districts with the total outlay of Rs.19.52 billions (US\$ 417 million) for the construction of 16.5 million individual household latrines, 163 thousand latrines for schools and other environmental sanitation works.

#### Box 4: Fact Sheet on Total Sanitation Campaign

- Launched in April 1999
- Operated in 111 Districts
- Sanctioned for 163 Districts
- Being scaled up to 250 Districts
- Rs.19.52 billion (US\$ 417 millions) Project Outlay
- Rs.2.51billion (US\$ 58.5 millions) released
- 16.5 million individual household toilets
- 163,768 school toilets
- 19,910 sanitary complex for women
- 1,549 Production Centres and Sanitary Marts

The impact of inadequate water and sanitation services on public health is well known and understood to be one of the major causes of morbidity and mortality in developing countries. However, the impact of **improved hygiene** is believed to have an equal impact as in case of provision of potable water or excreta disposal. Diarrhoeal diseases kill about 2 million children every year, but it is believed that handwashing with soap alone could reduce these diseases by half. The **global Public-Private Partnership initiative of the World Bank to promote handwashing was launched on a pilot scale in Kerala State of India in the beginning of 2001**. Since the results are encouraging the Government of India is considering to scale up this innovative public-private partnership to promote handwashing throughout Kerala State. Through the programme we hope to harness the creative and marketing skills of the private sector to trigger behaviour change that addresses our socio-economic objectives.

#### Box 5: Using competition to motivate villages to improve their sanitary conditions

The Gadge Baba Scheme<sup>8</sup> in Maharashtra has shown remarkable success in improving the sanitary conditions of rural villages. The State Government holds an annual competition that awards cash prizes to villages that perform well on a range of sanitation indicators: latrine coverage, hygiene practices, solid waste disposal, village cleanliness, etc.

## URBAN WATER AND SANITATION

The prevailing conditions and trends in **Urban India** indicates that **85 percent** of population in general have access to safe water supply, which is even **less (65 percent)** in slums; and **49 percent** of urban population have toilet facilities.<sup>9</sup>

On the **urban side** too, it is now well recognized that the **problem is more institutional** than technical. Till recently, there was no fiscal instrument available with the central government which could be used to influence states and cities to reform their urban water and services. The reforms in Urban Water Supply Services are in their infancy. Urban Water and Sanitation Services are characterized by inefficiency and poor service quality. So far we are not providing 24 hour quality water supply in any Indian city. In fact most cities are having intermittent water supply of varying periodicity and quantity. Some well to do families make private investments to augment quantity and improve quality for their families. Clearly these solutions are far from optimal and costly with heavy impacts on groundwater and water quality. The poor, of course, are the most hard hit by this state of affairs. **Poverty gets compounded with water poverty.**

However, on a more positive note, I am happy to inform that it is now being increasingly realised that creation of the right institutions for the delivery of Urban Water Supply Services is essential. It is also understood that the key to better services is through **improved management and correct pricing**. These institutional changes should precede any investments in augmentation. My own assessment is that with the emerging trend of urbanization and with it the growing political momentum, will ultimately enable the empowerment of Urban Local Governments. Once the process of empowerment picks up India is would be well on its way of changing the status of urban water sector. Again, to repeat my point made earlier, **the future of urban water is well linked to the economic and institutional reform of urban local government.**

Government of India in this year's budget has announced the creation of a **City Challenge Fund**<sup>10</sup> for assisting the State Governments and the Urban Local Bodies

<sup>8</sup> For details see February 2002 issue of *Jalvani*.

<sup>9</sup> Shelter - VOL.5 NOI January 2002 Special Issue on Water and Sanitation - HUDCO - HSMI Publication.

<sup>10</sup> Budget of Government of India for the year 2002-03.

in the economic reform, with the water and sanitation reforms forming a core of the approach. You will be interested in knowing that in proposing the City Challenge Fund, we have drawn ideas from the experience of South Africa's Local funding Programme.

#### Box 6: India's National Water Policy

The National Water Policy that is currently being revised stipulates water allocation priorities broadly in the following order: Drinking Water; Irrigation, Hydro-power, Navigation, Industrial and other uses

The policy stipulates progressive new approaches to water management. Key features include:

- Irrigation and multi-purpose projects should invariably include drinking water component, wherever there is no alternative source of drinking water.
- Providing drinking water to all human beings and animals should be the first priority.
- Measures to limit and regulate the exploitation of groundwater
- Both surface and ground water should be regularly monitored for quality. A phased programme should be undertaken for improving water quality.
- The efficiency of utilisation in all the diverse use of water should be improved.
- Awareness of water as a scarce resource should be fostered.
- Conservation consciousness should be promoted through education, regulation, incentives and disincentives.

States and Urban Local Bodies access funding through external commercial borrowing, and to a limited extent through institutional loans, but the privatisation of services through BOT, and BOOT routes in few Municipalities have been attempted. *Sulabh International* (an NGO) has successfully demonstrated the sanitation system at the community level and Commercial Centres on a pay and use mode.<sup>11</sup>

#### Water Resources

India's total water requirement for various sectors has been rising and the future need will be more than the present availability.<sup>12</sup>

#### Availability and Need of Water in India for various uses. (Billion Cubic Meters)

Use	1990	2000	2010	2025
Domestic	32	42	56	73
Irrigation	437	541	688	910
Industry	NA	8	12	23
Energy	NA	2	5	15
Other	33	41	52	72
	<b>502</b>	<b>634</b>	<b>813</b>	<b>1093</b>

In case of Water Resources Management let me highlight that the intersectoral issues are becoming increasingly important in order to improve the efficiency of Governments expenditure, particularly in irrigation and drinking water supply. All competing water users: irrigation and drainage, industry, drinking water and others need to be regulated at the river basin level to ensure environmental sustainability. Mechanisms and improved databases need to be developed to improved intersectoral planning, allocation and development of water resources while considering particularly socio-environmental peculiarities of each basin. Again, the issue of water pricing is critical to improve the efficiency of water use.

Ensuring that the appropriate legal, regulatory and administrative framework is in place for a financially sustainable water sector is our current challenge. India has a proud **tradition of harvesting rainwater** through various techniques from capturing water from the roof to more elaborate community structures. There is renewed interest in reviving some of the age-old practices for sustaining the local water resources. *Neeru Meeru* (water and you) of Andhra Pradesh, *Pani Roko Abhiyan* (Campaign for Water Stopping) in Madhya Pradesh, **Rain Water Harvesting** in Tamil Nadu, revival of traditional water bodies in Rajasthan are some of the examples of new initiatives taken in different parts of India. We in Government of India support initiatives for water conservation watershed development, groundwater recharge and rainwater harvesting.

#### Guiding Principles

I have developed 4 **cardinal principles** on the basis of which we carry out all reforms in the Ministry of Rural Development. They are:

- **awareness generation;**
- **transparency;**
- **community participation;** and
- **social auditing**

<sup>11</sup> "The State of the Indian Cities - 2000" - Published by HUDCO and UNCHS (Habitat) New Delhi

<sup>12</sup> Report of 10th Five Year Plan (2002-07) Working Group on Water Related Ecological Matters (2002), Ministry of Water Resources, Government of India



## WATER SECTOR ISSUES

The fresh water crisis is already evident in many parts of the world, varying in scale and intensity at different times of the year. Many fresh water eco-systems are degrading. The crisis is the result of both natural factors and human actions. Failure of monsoon, desertification and recurring droughts bring water related miseries to many. Further, uncontrolled extraction of groundwater for agriculture is driving the ground water table deeper and deeper. The system of “water right” under common law of many countries gives the ownership of groundwater to the land owner, despite the fact that **groundwater is a shared resource from common pool aquifers**. This calls for international consensus among countries to adopt normative, regulated and priced use of groundwater. We in India have designed a **model law** for the State Governments to legislate and implement.

Besides the sustainability of sources, wide spread pollution of surface and groundwater is affecting the **quality**. Chemical contaminates like arsenic, fluoride, nitrate, iron and salinity are posing problems world over. **How to mitigate these problems** - can we find any way out? There are technologies. **Are they cost-effective?** There are alternative sources for supply but at **what cost?** We can no longer show our blind eye to these water quality related issues. Let us deliberate to answer these questions.

Managing water cannot be seen as a sector in isolation. It is embedded in the functioning of Local Governments. If sustainability of water as a service and a resource is to be achieved, then **sustainability of Local Governments** as an accountable tier of government has to be ensured. In an era of multi-tiered Governments, water must be seen in the context of the **finances, institutions and processes** that link the different tiers of government together.

The importance of local governments in ensuring that we meet the water challenge suggests that **community participation and community involvement** in water management is essential. We should not get caught in a debate about local governments or communities in our service delivery paradigms. It is not one or the other. Service delivery is a function of an effective relationship between local governments and the communities they represent. Institutions for service delivery including water services, must take advantage of the **complementarity** between communities and their local governments if scaling up and sustainability are to be achieved.

Water is a precious commodity for life itself. Because of its preciousness we must seek to put a value to water. There are many mechanisms to ensure this: (i) **ownership** - what people own, they are more willing to conserve and use better; (ii) **regulation**, whether you are regulating a private operator or just making sure that the public good is protected; and (iii) we must ensure that **water is properly priced**. All these three instruments jointly must be at the core of a process which **catalyzes a mind shift** in

people about how water sources, services and systems must be owned, operated and managed (OOM) for ultimate sustainability.

Existing **institutions have to be restructured and strengthened for better service delivery and resource sustainability**. For too long, we have left the development and allocation of water sources to discretionary politics rather than using the power of politics to improve the institutions. There are many examples of such institutions based around watershed management, and river basin management. Such institutions at the source level must in turn be linked equally to sustainable institutions at the distribution level.

It will be hard for me to leave without mentioning about the role of the private sector!! Yes, there is a critical role for the private sector whether this is represented by community organizations, small water vendors, or by operators of water companies. Here there is a non-ideological issue. Water can be managed through many forms of public-private partnerships from management of contracts to concessions. But, it is less likely that water can be privatized. **The political dimension of water suggests that a partnership mode of relationship between the public and private sector will be more efficient than one of a seller and buyer.**

## WAY FORWARD

In implementing the bold new approach in drinking water and sanitation we are in the mode of learning by doing. In this context several important questions have emerged which we hope that **international experience** - lessons from other countries - will provide some insights. The answers to these questions I consider, will be essential in ensuring the successful operationalisation of the water and sanitation sector reforms in India. These questions are equally applicable to the developing countries in Africa, Asia and Latin America. Let me flag some questions for your deliberation in the Forum.

**How do you manage transitions?** Shifting from one set of existing institutional rules, practices and arrangements to the community led, participatory and demand-responsive mode - from the supply driven to demand-driven approach in water sector in the context of the political economy of countries is no small task. What have we learned from countries that have undergone deep institutional change in which mind shifts have taken place about managing a process of change? Perhaps, the World Bank and other External Support Agencies and Institutions will need to place appropriate emphasis on the process of change as they do on advocating change.

**In a multi-tier system of government, how does one tier support and promote change in another tier?** We are used to talking about un-bundling of services but we are less used to talking about service delivery in Governments which should have

been unbundled with constitutional rights and authorities to the Local Governments. What are the lessons here?

To me a critical issue of the reform agenda in water sector is **what are the vehicles and processes through which local government capacity grows?** It is clear that a top down model of capacity building first and then followed by decentralization is an old paradigm. Rather, **capacity building** must take place in the context of decentralization - a more challenging task. In this context, how best to support and nurture this synergy between capacity building and decentralization. The fate of the water sector may well depend on how we answer this question.

**What are the potential institutions for providing water and sanitation services that fit into the systems of local governments and communities?** We hear about city utilities, regional utilities for small towns, independent service providers, cooperatives, and much more. What is the potential of scaling up the creation of such institutions in developing countries? How can we design these to fit into the local government community paradigm? How can we support the capacity of Governments to manage these institutions?

## WATER FORUM

During these 3 days you will be discussing issues on drinking water and sanitation in rural and urban areas, waste water treatment, drought proofing, benchmarking in irrigation, water resources management, democratic decentralised local governments role in the water sector, promotion of Public-Private Partnership and Private Sector participation in irrigated agriculture and water management, and use of remote sensing in water resources management with the ultimate objective of promoting poverty reduction strategies in the developing countries. We would learn a lot from the forthcoming deliberations.

We have come to this international forum to engage together to find solutions to questions. I am confident that the deliberations in the coming days will seek to take stock of the international experience and assist us in answering these questions - atleast open up policies and principles that can enable us to innovate and search for the answers jointly. As I mentioned earlier, we are in the “**learning by doing**” mode and we see this forum as part of that process. Our collective experience is the necessary ingredient for finally converting the challenge faced in water sector into opportunities. Let us all work together globally to ensure a secured and sustained water future for people locally.

