

New Delhi, 10 -11 April 2002

**PROCEEDINGS**



UN-HABITAT



Organised by  
**UN-HABITAT in Cooperation with Asian Development Bank**

Hosted by  
**Government of India**



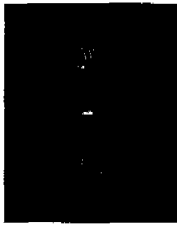
# Regional Consultation on Water and Sanitation for Asian Cities

10 - 11 April, 2002, New Delhi

Organised by  
United Nations Human Settlements Programme (UN-HABITAT)  
in Cooperation with the Asian Development Bank

Hosted by  
Ministry of Urban Development & Poverty Alleviation, Government of India, and  
Housing and Urban Development Corporation (HUDCO)





## MESSAGE

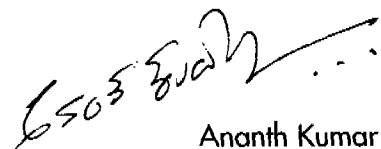
Ananth Kumar  
Minister  
Urban Development and Poverty Alleviation  
Government of India

At the beginning of the twenty first century, the world faces a number of challenges affecting the availability, accessibility, use and sustainability of its fresh water resources. These could have serious implications for the present and future generations of humanity as also for natural ecosystems. India, which has 16 per cent of the world's population, has roughly four per cent of the world's water resources and 2.45 per cent of the world's land area. The distribution of water resources in the country is highly uneven over space and time. Over 80 to 90 per cent of the runoff in Indian rivers occurs in four months of the year and there are regions of harmful abundance and acute scarcity. Vast populations live in latter areas. The country has to grope with several critical issues in dealing with water resource development and management.

Enormous quantities of water in addition to existing uses are required for meeting the basic human needs of water for life and health and for producing food, shelter and clothing for a large and growing population in our country. More water is needed for energy generation, for crucial industrial activities and, even more essentially, for maintaining an environment and ecosystem conducive to sustaining all forms of life. We have yet not been able to meet fully and satisfactorily even the needs of drinking water in all parts of the country.

If meeting the water requirements for sustenance of life and development over time is a challenge, it is not because nature has been too niggardly in bestowing this valuable resource on us, but more because we have been wanting in using this resource with care and vision. We have not adequately attempted an integrated approach to water use with a perspective of overall development. We have not paid serious attention to developing legal and institutional framework for rational use of water, and above all, we have been slow and wasteful in our programmes and projects for the development of this precious resource.

In order to promote integrated water resources development of both surface and ground water and to optimize benefits resulting in economic use of available water, there is a need to evolve a framework of development with the objectives of maximizing the availability of utilisable water with due regard to harmony with nature and environmental sustainability, taking an integrated view of water from all sources. The task requires balancing the water demands for different purposes, keeping national perspectives in view and meeting the needs of water-short areas in the country, optimizing benefits and ensuring economical use and conservation of this increasingly scarce resource. I hope this consultation shall help in promoting pro-poor water governance through Water for Asian Cities programme and in developing a framework for exchange of both experiences and good practices which shall help countries in the region to meet the challenge.

  
Ananth Kumar

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## MESSAGE

Anna Kajumulo Tibaijuka  
Executive Director  
UN-HABITAT

The Asia-Pacific region – a region steeped in culture and spirituality - evokes great interest and respect to all. More recently, the region has been known for its economic vibrancy and heady growth. Yet, the long-term sustainability of this development is now seriously threatened as a growing water crisis takes on an ominous dimension in large parts of Asia. Per capita freshwater availability in the region is now among the lowest in the world. Over abstraction of ground water has reached critical proportions in coastal cities like Dhaka, Jakarta and Manila. Intense competition is developing between cities for shared water resources. Health risks continue to rise as many cities recklessly discard untreated human and hazardous wastes into freshwater bodies. The sustainability of our cities tomorrow will be closely linked to how we manage their precious water resources to day.

Conserving the precious water resources for our cities is undoubtedly an urgent priority, but the most daunting challenge that we face today comes from the spontaneously growing urban informal settlements. Call them in whatever name you like – slums, shanties, bustees, these cities within cities, are today home to nearly half of our urban populations. Hundreds of millions of our fellow citizens living in these settlements are denied every day a fundamental right – the right of access to safe water and basic sanitation.

The Millennium Summit provides us with clear goals to set our priorities. Improving the living conditions of 100 million people living in slums by 2020 will remain a distant dream if we are unable to help them to access safe water and adequate sanitation.

I wish to express my deep gratitude to the Government of India, and to Hon. Ananth Kumar, Minister for Urban Development and Poverty Alleviation, for hosting this Consultation so graciously. My appreciation also goes to the Asian Development Bank, our valued partner in the region, for joining forces with us in addressing the issue of water and sanitation in cities - an issue that is taking centre stage in the ongoing debate for sustainable development.

I hope that the recommendations of this Consultation will provide a sound basis for developing a regional initiative addressing the water and sanitation crisis in Asian cities. UN-HABITAT and its partners stand ready to support the efforts of Asian countries in this important area of mutual concern.

A handwritten signature in black ink, reading "Anna Kajumulo Tibaijuka". The signature is written in a cursive, flowing style.

Anna Kajumulo Tibaijuka



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# **The Regional Consultation on Water and Sanitation for Asian Cities**

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## **Introduction**

The Regional Consultation on Water and Sanitation for Asian Cities was organized by UN-HABITAT in cooperation with Asian Development Bank and hosted by the Ministry of Urban Development and Poverty Alleviation, Government of India with the support of Housing and Urban Development Corporation (HUDCO) and Human Settlement Management Institute (HSMI) at New Delhi from 10-11 April, 2002. Sponsored by the 3<sup>rd</sup> World Water Forum, the consultation formed an integral part of the preparatory process for the 3<sup>rd</sup> World Water Forum. The Consultation was attended by 68 participants from 15 countries in the region (Bangladesh, P.R. China, Cambodia, Papua New Guinea, India, Indonesia, Iran, Korea, Malaysia, Nepal, Philippines, Sri Lanka, Thailand, Uzbekistan and Vietnam), 24 representatives from 11 external support agencies (ADB, AUSAID, CIDA, DFID, European Commission, GWP, JBIC, UNICEF, USAID, WSSCC and The World Bank) and 13 representatives from NGOs, International Capacity Building Institutions and the Private Sector.

## **Background and Context**

At the turn of this century, 3.68 billion people, representing 60 per cent of the world's population of 6.06 billion lived in Asia. Urban population growth in Asia, currently at 2.7 per cent per annum, is 27 per cent higher than the global average. Asia is expected to double its urban population by the year 2020. By 2025, the majority of the region's population will live in cities. By 2015, there will be 153 cities of one million inhabitants, 22 cities with 8 or more million people, and 15 with 10 to 20 million people.

Almost all of the world's major cities enter the 21<sup>st</sup> Century facing a water crisis. The explosive growth of urban centres over the past 25 years or so, which continues unabated, is rapidly depleting previously bountiful fresh water resources. The urban water challenge is taking an ominous dimension in vast tracts of Africa, the Middle East and Central Asia, where the situation is most precarious. Rapid urbanisation, growing populations and development are overwhelming traditional water management practices.

Water scarcity is also a potential source of social and political conflicts. Rapid population growth in urban areas has led to degraded environments and increasing competition for resources. The world's cities not only face the challenge of supplying safe water and adequate sanitation facilities to its residents, but must also ensure that the available water is not wasted or contaminated. An integrated approach to urban water management is essential for the social, economic and environmental sustainability of cities.

## **Developing the Water for Asian Cities Programme**

### ***Initial Consultations***

A programme on Water for African Cities Programme was launched by UN-HABITAT in 1999 as a direct response to the Cape Town Resolution (1997) adopted by African Ministers addressing the urban water challenge facing the continent. This was the first comprehensive initiative to

support African countries to effectively manage the growing urban water crisis and protect the continent's threatened water resources from the increasing volume of land-based pollution from the cities.

The Water for African Cities Programme, which now is in its third year of implementation has raised considerable interest in other regions as well. Several countries in Asia have evinced interest to participate in a similar regional programme for Asia. At the Asian Mayors' Summit held in Fukuoka, Japan, in 2001, this interest took a concrete shape through a formal request to UN-HABITAT to commence a Water for Asian Cities Programme. UN-HABITAT conducted a questionnaire survey among several Asian cities to carry out a needs assessment, specifically in the Asian context. The Survey revealed specific interests in the following areas: demonstration of best practices through pilot projects in integrated urban water resource management, training and capacity building, advocacy, information exchange and water education. It was also noted that while the initial focus of the African Cities Programme on demand management and pollution control were equally relevant in the Asian region, there was strong interest from the Asian countries to include in such a programme the following additional areas:

- Urban poverty alleviation through community-based urban water services.
- Priority attention to urban environmental sanitation.
- Improving urban water governance.

The Asian Development Bank (ADB) has shown strong interest to be an active partner of UN-HABITAT in the Asian component of the programme. The long investment experience of ADB in the region, its new focus on poverty alleviation and in promoting improved urban water governance in Asian cities would complement the proven strengths of UN-HABITAT in areas of community participation, advocacy, education and capacity-building in the implementation of the Asian component of the Water for Cities Programme.

### **Asian Context**

Asia is facing a major challenge in the water and sanitation sector. Eighty percent of the global population without access to improved sanitation, and almost two-thirds without access to improved water supply, live in Asia. The need for these basic services in Asia outstrips that of Africa, Latin America, and the Caribbean taken together.

To meet the international development target of halving the proportion of people without access to improved services by 2015, an additional 1.5 billion people in Asia will need access to adequate sanitation facilities, while an additional 980 million will need access to safe water. In urban areas, the corresponding figures are 675 million and 619 million respectively. Emphasis on urban water and sanitation has also been placed in the Millennium Declaration by setting a target of improving the living condition of at least 100 million slum dwellers by 2020.

The aggregated regional statistics, however, mask many important facts, for example, the wide diversity of the region with some countries already enjoying near universal access to water and sanitation while, at the other extreme, some countries have been able to realize service coverage much lower than the regional average. The statistics also do not bring out the intra-urban differentials in service coverage, with more than half of the population of many cities, living in slums and squatter settlements, remain outside the reach of municipal services.

Coverage figures also give little indication of the quality of service provided by municipalities or utilities. In many Asian cities water supply is limited only to a few hours a day which not only

restricts water availability but also poses serious health threats due to infiltration of pollution into the system. Intermittent, unreliable supplies and large volumes of unaccounted-for water are also an indication of poor demand management and inefficient operation and maintenance.

The organization of the sector and institutional responsibilities for service delivery also vary widely within the region. While few cities have started on rapid sectoral reforms, the general trend shows the old inertia with continued dependence on public service provider agencies, which have undergone little reforms in terms of autonomy and commercialization. Organized private sector participation in water and sewerage in Asian cities, with few notable exceptions, has remained halting and low-key. Nevertheless, a thriving informal water market (commonly known as small-scale water providers which include both private operators and NGO/CBO run entities) exists in most Asian cities. The urban poor relies almost exclusively on this sector for meeting its water needs, however, there is a major information gap on the operation of this sector (Asian Development Bank has recently started a study of this sector, result of which is yet to be available). Considerable advantage could be derived from sharing of information and experience among utility managers and policy makers on how the sector operates and on the ongoing reforms.

Little progress has also been made in the area of inter-sectoral coordination. Service responsibilities typically suffer from overlap and redundancies and in very few countries successful effort has been made to bring coordination among the key sectors (e.g. water, environment and municipal authorities) which is essential for integrated water resources management. In the absence of coordinated action for monitoring and mitigation, pollution of freshwater bodies (both surface and groundwater sources) from the growing volume of urban wastes has reached alarming proportions in many urban ecosystems. Continued inaction in this area could lead to greatly increased cost in securing freshwater sources of acceptable quality in the future.

Community participation in the water and sanitation sector has, however, seen remarkable progress in several countries within the region in recent years. However, most innovative initiatives have come from communities and NGOs rather than from local authorities. The challenge in this area is to evaluate these experiences and disseminate them widely for possible replication in other cities. Also stable partnerships with local authorities are essential for the sustainability and upscaling of these initiatives to city-wide level.

It is widely recognized that the current level of investment in the sector within the region is quite inadequate to bridge the widening demand-supply gap and to extend services to urban low-income settlements. With no immediate prospects for a rapid increase in external investment flows into the sector, most governments are increasingly becoming aware of the need for more intensified domestic mobilization of funds for the sector. This will, however, require a strong political commitment in the face of competing demands from other sectors. Raising the water and sanitation issue high on the political agenda is an urgent priority that will require investment in advocacy, information and education.

Greater attention is also needed to manage the spiraling urban water demand on to a sustainable track. Experience from both within and outside the region shows that a modest investment in demand management and in measures to improve the efficiency of the existing delivery system could postpone large investments in supply expansion by several years. Sharing of this experience could benefit many countries in the region.

## **Objectives and Agenda of the Regional Consultation**

### ***Objectives of the Regional Consultation***

The objectives of the Regional Consultation were:

- To stimulate a dialogue among city managers, utilities and other stakeholders in Asian cities on the key issues and emerging priorities in the water and sanitation sector, and to move towards a broad consensus on effective ways of meeting the Millennium Summit goal of improving the living condition of at least 100 million slum dwellers by the year 2020;
- To share good practices and experiences on water and sanitation sector in Asian Cities; and
- To develop a framework programme proposal on Water for Asian Cities.

### ***Agenda for the Regional Consultation***

The following agenda was addressed in the Regional Consultation on Water for Asian Cities:

- Assessment of water and sanitation situation in Asian Cities.
- Overcoming the barriers to sector reforms and improving the efficiency of existing delivery systems.
- Innovative ways of improving urban poor's access to water and sanitation.
- Presentation of good practices and experiences from Asian cities and, selectively, from other regions.
- Developing a framework proposal on Water for Asian Cities Programme.

# **RECOMMENDATIONS**

## Recommendations

The Consultation unanimously recommended that UN-HABITAT, in cooperation with the Asian Development Bank and other partners, take urgent to formulate and implement a regional programme addressing water and sanitation needs of Asian cities.

Based on discussions held in three separate working groups, and their recommendations as presented, deliberated and adopted at the concluding Plenary session, Consultation recommended the following with regard to Programme priorities, Implementation strategies and Partnership arrangements for the water for Asian Cities Programme.

### 1. Programme Priorities

Water for Asian Cities programme should have the following key priorities:

- Promoting urban water demand management.
- Pro-poor governance.
- Income generation for the poor linked to water supply and sanitation.
- Integrated urban environmental sanitation.

Each programme priority has several dimensions which may have to be kept in view while working out implementation strategies and partnership arrangements.

**(a) Promotion of Urban Water demand management:** This has to take into account economic, social, technical, legal, administrative and institutional aspects. The *economic* aspects should consider cost effectiveness, allocation of financial and human resources, pricing and public-private partnerships.

Social aspects should put priority on serving the unserved, equity in distribution of services, setting of tariffs including life-line tariff structures and removal of barriers to the entry of the poor. Technical and technological aspects should consider reduction of unaccounted for water, water conservation, water quality assurance, development of various options and asset management. The priority legal issues include regulation for reallocation of resources made available through demand management and control of groundwater extraction. Administrative and institutional priorities are specification of WSS sector responsibilities and allocation of funding.

**(b) Pro-poor governance priorities:** These include splitting of institutional framework to ensure focus on needs of the poor, simplification of procedures to obtaining services, establishing the rights of the poor for WSS services, and specific attention and mechanisms to address the needs of women. These will lead to targeted investment for the poor.

**(c) Linking income generation to WSS services:** There should be access to service for all in a particular area, and communities should be involved both in service provision and maintenance.

**(d) Integrated Urban Environmental Sanitation:** Priorities under this include the development of appropriate technological options and promotion of solid waste management.

In addition to these priority areas for Water and Sanitation Programme for Asian Cities to focus upon, there are several cross cutting issues which may also be attended to. These are as follows:

- Water supply and sanitation value education
- Sustainability of political will
- Capacity building
- Environmental protection
- Equity
- Main streaming gender to protect women's interest
- Management information system (MIS)
- Monitoring and evaluation
- Documentation and dissemination of data used and collected

The programme should have equal priority and clear focus on sanitation.

## 2. Implementation Strategies

Important elements of the implementation strategies are proposed as under:

- Administrative issues
  - Implementation strategies
  - National demonstrations and sharing
  - Information exchange
  - Capacity building
  - Monitoring and evaluation
- (i) **The Administrative Issues:** UN-HABITAT should give a formal invitation to countries to get a feel of expression of interest from the countries. There is a need for a consultative and transparent approach in the selection of the cities for the programme.
  - (ii) **Implementation Strategies:** Regional consultation has recommended a strategy of initially starting with one city per sub-region and then scaling up to three cities for the demonstration projects that will lead to national replication in the countries in the region. Leadership would be very important and will be required for the WSS sector to move the programme to scale for which ministerial meetings and city managers' meetings will be required. The Working Groups emphasized that the city managers' meetings should have all the stakeholders in the programme including representation of the urban poor.
  - (iii) **National demonstrations** and sharing of experiences and best practices from the city demonstration projects to develop replication arrangements in participating countries. Self-defined strategies may be developed by the participating countries and cities to develop such arrangements.
  - (iv) **Information exchange** among countries and cities through regional study visits. Development of databases may be posted in websites, and through linkage with other similar programme initiatives.
  - (v) **Capacity Building:** Identification of existing regional and local resource and training centers whose programmes and curricula can be enhanced to support water and sanitation programmes. Staff exchanges and development of management development programmes needed in the sector.
  - (vi) **Monitoring and evaluation** are important elements of the implementation strategies as tools for programme guidance. Evaluations should enhance the learning process and help the programme leaders in decision-making.

### 3. Partnership Arrangements

Two kinds of partnerships have been identified for the programme to support.

- Primary Partners are the citizens and local governments to be supported by the programme.
- Secondary Partners supporting the programme comprising of UN-HABITAT and other international and local organizations.

For both partnerships, the terms of engagement have to be defined in terms of roles, contributions, responsibilities and strengths that each partner will bring into the programme. In developing the partnership arrangements, the following general principles may be considered:

- Development of partnerships will need catalytic support from various organizations.
- Focus on action and policy should go together in the implementation of the programme.
- Scaling up of best practices will enhance the programme.
- Duplication and competitiveness that normally creeps in among programmes should be avoided.
- Use of existing institutions and networks for implementation of the programme (The working groups cited examples from India: City Managers' Association, Mayors, Association, Change Management Forum composed of municipalities and water utilities, etc.)

Following is the list of possible partners:

- Primary stakeholders
- CBOs
- NGOs
- Local governments
- Women's groups
- International and bilateral agencies
- Resource centers
- Financing agencies (local and international)
- Central government
- State governments
- Private sector
- Education ministries and institutions
- IHE
- HUDCO – HSMI
- City Challenge Fund (India)

Organizations that expressed interest in joining the proposed programme are as follows:

- NGOs present in the meeting
- Cities present
- WSSCC participation will depend on demand from the programme partners; WSSCC has offered advocacy and neutral space for the programme
- WSP-South Asia has offered to jointly implement the programme using their strengths and networks.



# **FOLLOW-UP ACTIONS**

## Follow-up Actions

The conclusions and recommendations of the Regional Consultation on Water for Asian Cities Programme organised at New Delhi from 10-11 April, 2002 suggest the following immediate actions:

1. Formulate the proposal, keeping in view the programme priorities recommended in the New Delhi Consultation meeting.
2. UN-HABITAT should write to all countries intimating them that 'Water for Asian Cities Programme' is being set up and also send formal invitation to all countries of the region for obtaining expression of interest for participating in the Programme.
3. The consultative process which started at New Delhi with Country/City representatives, seeking oral information about cities, should now be followed to obtain it in a structured framework from respective countries for selection of the cities.

If need be questionnaire may be sent as was done in the case of African Programme to obtain information about the candidate cities from the concerned governments.

4. The criteria for selection of cities, which may indicate more transparent approach has to be developed, so that cities which have water supply and sanitation problem and are keen to commit human and financial resources should be able to participate in the new programme. The selection criteria may give due consideration for size, poverty, geography and topography in selecting the cities for the proposed project.
5. A Programme WEBSITE may be created and immediately launched for information sharing among primary as well as secondary partners. These include Citizens, NGOs, CBOs, Private-sector, Urban Local Bodies, Urban Development Authorities, Water and Sanitation Utilities, National, Regional and International Agencies, Programmes like WSP and WSSCC and Institutions like IHE and HSMI.
6. UN-HABITAT and the ADB to facilitate the establishment of the Water and Sanitation Network for Asian Cities as resolved in New Delhi. The Collective Statement/Resolution on the establishment of the Water and Sanitation Network is given in the following page.
7. Distribute Proceedings of the Regional Consultation Meeting.

## The Water and Sanitation Network for Asian Cities: An Urgent Priority

New Delhi, 12 April 2002

As an important outcome of the Consultation on Water and Sanitation for Asian Cities, the participants resolved the following:

- Action should be the key word in the follow-up to the Consultation.
- In line with this sentiment it was agreed to launch in New Delhi a Network of sector professionals and stakeholders, beginning with the participants in this Consultation, with the following objectives in view:
  - To work together in developing a regional programme titled: Water and Sanitation for Asian Cities, focusing on improving the efficiency of existing and future assets, enhancing the flow of investments and promoting community-friendly services in the sector;
  - Sharing information and experience of good practices on managing urban water and sanitation, with priority focus on promoting urban water demand management, pro-poor governance, income generation for the urban poor linked to Water Supply and Sanitation and integrated urban environmental sanitation;
  - Building a consensus on issues and priorities in urban water and sanitation amongst sector professionals and decision-makers to generate a new momentum of action. The 3rd World Water Forum in Osaka in March 2003 will be an important milestone in this process.

The participants urged the organisers, UN-HABITAT and the Asian Development Bank to facilitate the establishment of the Network.

**PROCEEDINGS OF  
PLENARY AND  
WORKING GROUP  
SESSIONS**

# Proceedings of Plenary and Working Group Sessions

Day 1, Wednesday, April 10, 2002

## Inaugural Session

In the opening session of the consultation, Mr. K. Kosal Ram, Secretary, Urban Development, Government of India, welcomed the delegates on behalf of the hosts. In his address he referred to the big gap of US \$3400 million per annum between the investment required and budgetary allocations in India for water and sanitation sector. The measures to improve the situation require good urban governance, public-private participation, decentralization of power to the Urban Local Bodies (ULBs), urban sector reforms for increasing creditworthiness of ULBs, accounting reforms, rationalization of tariffs, reducing unaccounted for water and improving MIS. Sharing his country experience he explained the new initiatives of Government of India for setting up City Challenge Fund for Metro Cities and Pool Finance Funds for smaller cities to augment finances for Water Supply and Sanitation.

In her message Ms. Anna Kajumulo Tibaijuka, Executive Director of UN-HABITAT, referred to various Strategies to improve access to water supply and sanitation that include:

- Effective Monitoring Mechanism.
- Good Urban Governance.
- Economic, Social and Environmental Value of Water.
- Realistic Pricing Policy for Preventing Wastage.
- Expansion of Service.
- Public Information Campaigns.
- Higher investment for the sector.

Partnership between private sector, public sector and community based organizations is important to provide access of water to poor. Sharing of information and exchange of Best Practices among stakeholders can also play an important part in improving the system.

Frank Polman, Country Director of Asian Development Bank, New Delhi, stressed on several points:

- Need for policy change, massive investments, increase in revenue and good governance including good water governance.
- Policy to promote water as social and economic good.
- Need for rationalization of water tariffs to make the projects sustainable so that private participation can be attracted.

Dr. Brenda Gael McSweeney, UNDP Resident Representative and United Nations Resident Coordinator stressed the need for using local techniques like traditional techniques of watershed management and rain water harvesting. She brought out the Indian case studies of Kutch region in Gujarat, Nimmi Village near Jaipur and Tilonia in Rajasthan. There was a greater emphasis for gender equality and decentralized approach in community driven projects of UNDP at Pune, Bangalore, Mumbai etc. The challenge, she said, was to provide quality service and access at affordable price. She also stressed on devolution of funds, capacity building, sharing of best practices, coordination among water providers, city administration, policy makers and community.

The message of Mr. A.J. Diphooorn of the Ministry of Foreign Affairs, Government of The Netherlands was read by Dr. Hans Knijnenburg of the Royal Netherlands Embassy, New Delhi. In his message Mr. Diphooorn highlighted the Dutch Government's commitment in 10 developing countries for Water Management Programme. The focus is suggested to be on development of long-term structured partnerships, capacity building and coherent plan of activity.

The Inaugural Address was delivered by Mr. Bandaru Dattatreya, Minister of State for Urban Development and Poverty Alleviation, Government of India. He said that 90 per cent of urban population in India has access to water supply but availability is limited. The sector needed high capital investment but the extent of Government investments were limited. Financial institutions, therefore, had key role to play. In India e.g. 80 per cent of financing in the WSS sector is by HUDCO. HUDCO has sensitized ULBs on the need to implement sustainable water supply systems through rationalization of tariffs and other innovative cost recovery mechanisms. Ground water recharging, rainwater harvesting and recycling of waste water are important conservation measures being encouraged and pursued in the country. Due to lack of financial resources, Government of India proposed to place emphasis on urban sector reforms through new institutional mechanisms like City Challenge Fund and pooled finance development fund. It was recognised that Public-Private Partnership is expected to play a key role in the water supply and sanitation. The opening session ended with a vote of thanks by Mr. PK Pradhan of the Government of India.

### **Plenary Session I**

The organisers had invited distinguished professionals to deliver the keynote addresses on four different themes namely – (a) Water and Sanitation for the Urban Poor; (b) Promoting Urban water Demand Management; (c) Improving Urban Water Governance; and (d) Experience of Water and Sanitation Programme in South Asia. The session was chaired by Mr. Ranjith Wirasinha, Consultant.

In his Introductory Remarks, Mr. Ranjith Wirasinha referred to the need for identification of priorities and how to address them through practical solutions. He said that water provides sustenance and sanitation provides dignity. The issue of equity and demand management was also very important.

In his keynote address on Water and Sanitation for the Urban Poor, Dr. Kulwant Singh of Human Settlement Management Institute, New Delhi, highlighted the growth of urbanization particularly in the Asian region. Lack of access to water and sanitation explained high vulnerability of the urban poor. He highlighted some of the Important problems in countries of the region that included :

- Vulnerability of women and children;
- Low priority for sanitation;
- Unequal and insufficient access due to lack of tenure; and
- Weak Institutional mechanisms.

Increasing accessibility of water and sanitation not only required higher investments but also greater political will, sensitization of policy makers, public education, community involvement, lifeline tariffs, secure tenure and capacity building. He referred to UN-HABITAT's project in three cities of India, viz Lucknow, Rajkot, Visakhapatnam, which had a big multiplier effect leading to generation of employment and improvement of health.

Mr. Saul Arlosoroff in his keynote on Urban Water Demand Management (UWDM) explained the importance of UWDM vis-à-vis Supply Management. The implementation strategy for comprehensive water demand management required (a) water metering; (b) progressive tariff structures; (c) retrofitting of existing commercial buildings and old homes; and (d) reduction of unaccounted for water and reuse of treated waste water. The legislative and institutional base was a pre-requisite. He well brought out country experiences of China, India, Singapore and Israel.

Delivering the keynote on Improving Urban Water Governance, Mr. Alex K. Jorgensen of the ADB emphasized on improving urban water governance through (a) policy reforms, financial reforms and institutional reforms; and (b) public participation and public education both for implementing reforms and better urban water governance.

Dr. Pushpa Pathak of Water and Sanitation Programme of South Asia shared WSP's experience of Water and Sanitation Programme in (a) Upscaling of projects through institutional reforms; (b) Decentralised Management; (c) Community interface for service delivery; and (d) Targetting the subsidy through innovative mechanisms.

The questions to the presenters were mainly of clarificatory nature. These related to the approach for introducing metering, funding mechanisms of regulatory bodies, nature of WSP support in South Asia, ADB's reference point for overstaffing, economics of waste water recycling and measures for reduction of unaccounted for water.

## **Plenary Session II**

The second plenary was chaired by Mr. V. Suresh, Chairman and Managing Director, HUDCO. There were three presentations during the session.

Dr. Maarten Blokland, Vice Rector, IHE, The Netherlands in his presentation on Training and Capacity Building for Urban Water Management said that Capacity Building is more comprehensive than training; even though in practice for a considerable time, a fresh look is needed to make it creative, participative and action oriented. Capacity Building activity should be taken upfront and focus should also be on capacity builders and to assist in orientation of utility staff.

Dr. Victor Kanu, Director of the African Institute of Sathya Sai Education, Zambia, spoke on Value Based Water Education. He underscored that Water education for awareness creation brings about attitudinal changes in the society to value water as a resource and social good. Both consumers and providers need to have this change in attitude and early education in childhood could be the best starting point. According to Dr. Victor Kanu water education would be cost-effective as compared to subsequent corrective campaigns. In his experience love for water brought about through a better understanding could be facilitated through interventions in school curriculum.

Mr. Andre Dzikus of UN-HABITAT discussed the role of Best Practices in Urban Water and Sanitation. In his opinion there should be more emphasis on the process than on the outcome as part of the lessons learnt from the best practices, since it is the process which is transferable and not the solution. He felt community based processes are observed to be more holistic and inclusive and hence need to be given the due importance these deserve. Further it was necessary to combine both physical improvements to the tangible economic benefits for making the projects successful and lastly Decentralisation and Capacity Building are also important components of

a best practice. In order to illustrate his view point he took four different sectoral examples of best practices from the region.

Dr. Graham Alabaster also of UN-HABITAT explained the role of Indicators in the development of Urban Water and Sanitation sector. He informed that Urban Observatories have been set up at global, regional, national and sub-national levels. For making the global urban observatory project successful, data collection through community based information system was suggested. Absence of data on urban indicators at disaggregated level was a serious constraint and those based on secondary sources of information were not very accurate and reliable. The indicator needs for water sector for selected Asian cities relate to monitoring the demonstration components to enable scaling-up of projects, institutional development and capacity building, awareness and advocacy, information exchange and networking.

### **Plenary Session III**

The session was chaired by Mr. Kalyan Ray, Chief, Infrastructure Division of UN-HABITAT. In his opening remarks he said that some of the NGOs were doing an excellent work in the field of water and sanitation sector. Inviting Mr. V. Srinivasan of Sri Sathya Sai Sewa Organisation to present the water project in Chennai, India he wanted him to dwell on the future plans to extend the project for providing water to the poorer sections of society with the cooperation of national and international agencies. Introducing his organization, Sri Sathya Sai Sewa Organisation, an NGO, which executed a major water project in Anantpur District in Andhra Pradesh Mr. V. Srinivasan explained the main features of this partnership project. The project was the joint effort of Sri Sathya Sai Central Trust, State Government of Andhra Pradesh and Larsen & Toubro Limited.

- The main features of the project are that the initiative was taken by a charitable trust deeply committed to the welfare of people and implemented by mobilizing active cooperation and participation of the community and full cooperation of the State Government.
- The detailed engineering and project execution was by L&T Limited which resulted in completion of the project in a record time of 18 months.
- The basis of the project was the human values enshrining respect for nature and conservation of natural resources. Value education and awareness generated by campaigns and other primary interactions has mobilized the communities to fully support this project initiative and enhancing the scope for future maintenance management.
- The Trust proposes to take up a similar project for Chennai.

Mr. Amro Mark, Deputy Managing Director of the Papua New Guinea Water Board, made a presentation on water and sanitation in the context of small island states in the pacific.

- The most common problems of small isolated islands with scattered population are difficulties in communication, vulnerability to natural disasters and El Nino Phenomenon (rising sea levels).
- The highlight of water board experiences include regional collaboration, supportive interventions at national level and project implementation, action plans and strategies at the level of different islands.
- The outcomes and learning experiences include discussion on privatization and water supply corporatisation, bringing down unaccounted for water from the present level of 33 per cent in order to manage high capital intensive projects, water vending, advocacy and public awareness and improving governance and also precaution by measures against drought.



The Plenary Session III also had a panel discussion on Urban Water and Sanitation Priorities in the Region. In the panel discussion, speakers from Bangladesh, Papua New Guinea, Nepal and Malaysia narrated their experiences. This was followed by clarifications and other views expressed by the participants. The session was chaired by Dr. Kalyan Ray of UN-HABITAT. The important points raised during the panel discussions were reexamination of the applicability and appropriateness of low cost technologies such as twin pit latrines in the high water table areas of Bangladesh, innovative ways to find water supply and sanitation programmes to overcome some of the very stiff conditions imposed by donor agencies in the case of Nepal, route to privatization through corporatisation at the first instance is found to be more sustainable than project based BOT approaches in Malaysia.

The subsequent discussion highlighted how majority of the poor are deprived of individual water connections by linking tenure rights to provide access to regular piped individual water connections. The sanitation option of individual Vs. public toilets also came up for discussion. In this context, it was felt that what was important was the process of involving the communities to make the decisions in this regard and choose the option that was most acceptable to the community. The other important guiding criteria should be making the communities take the responsibility for the subsequent maintenance management. Creating awareness and value education for improving the effectiveness of water and sanitation interventions were also discussed.

## **Day 2, Thursday, April 11, 2002**

The Plenary Sessions IV, V and VI on the second day of the regional consultation were chaired by Ms. Margaret Catley-Carlson, Chair, Global Water Partnerships.

### **Plenary Session IV**

In this session there were four presentations by CCWSS, SPARC, ADB and UN-HABITAT. In her opening remarks the chairperson enquired if the new programme of Water, Sanitation and Hygiene (WASH) Campaign will add to the capacity in this region? Inviting Mr. Gouri Ghosh, Executive Director, Collaborative Council for Water Supply and Sanitation for presenting the WASH Campaign she asked what was the niche for this programme? Mr. Gouri Ghosh explained that the objective of the WASH Campaign was to stop the unsustainable exploitation of water resources by developing water management strategies at the regional, national and local levels, which promote both equitable access and adequate supplies. Water, Sanitation and Hygiene are entry points for poverty alleviation and should be looked as one and not as separate sectoral issues. Systems should be designed as "Closed Circle" in such a way so as to minimise inputs and reduce outputs. Water can be a major source of transmission of diseases. Therefore, there was a need for focusing on hygiene education in schools teaching simple measures like hand washing with soap or even ash and water which can cut the transmission of the diseases by one third. It is a myth that poor cannot pay. Several studies show that majority of urban poor were willing to pay.

Mr. Ashok Chatterjee shared some lessons from his organisation's work in Ahmedabad, Gujarat where some 40 NGOs were working along with the State and Local Governments training to put people at the centre of decision making. There was a need for establishing demonstration centres to demonstrate alternatives or service centres to show options for community water supply and sanitation and hygiene education and to demonstrate more equitable, rational and humane ways of delivering services. Lack of sanitation facilities pose peculiar problems. Largest

girl child drop outs of schools are due to absence of toilet facilities. Therefore, there was need to involve community organizations to find sustainable options which can help building improved designs and also carefully workout arrangements for payments to work out viable alternatives.

Dr. K.E. Seetharam shared lessons from ADB's Operations Evaluation of water and sanitation projects for evolving an Integrated Approach for the Future. These evaluation studies underscore the need for (a) Involving beneficiaries at all stages of the project as ownership is critical to the project's success and delivery of the services; (b) Projects should educate, encourage and employ beneficiaries; (c) Water companies can successfully distribute potable water in bottles rather than taps; (d) Socially oriented rural water supply projects should be implemented expeditiously and in partnership with local governments, NGOs and community organizations; (e) Private sector participation in distribution may be the starting step to reduce losses from leaks and thefts; and (f) There was a need to protect alternate sources of water and avoid pollution at all costs.

Ms. Sheela Patel of SPARC (NGO), Mumbai, India shared SAPARC's experiences of an Innovative Approach to Urban Sanitation in the city of Pune. Involving community in improved designing, implementation and operation and maintenance of the toilets has resulted in better usage and upkeep. Community toilet blocks were provided with separate units for men, women and children besides room for caretaker and even venue for community meetings. This has ensured cleanliness of the complex.

Lessons learnt from Pune's experience include provision of sanitation as a strategy to empower the poor, particularly women through their involvement in planning, implementation (construction supervision) and dialogue with operational units in local bodies. The process has facilitated initiating dialogue for other services such as solid waste and also for evolving a mechanism for levy and collection of user charges, tariffs etc. The Pune experiment is now being replicated in Mumbai and Bangalore. Based on these successes the Central Government of India has announced a National Sanitation Programme in which there shall be a subsidy element of 50 per cent on the cost of toilet in scheduled cities.

Mr. Kalyan Ray shared experience from another region through the implementation of Water for African Cities programme. The programme in Africa had three goals viz. (a) Water Demand Management; (b) Improving Environment; and (c) Building Capacity in the region. Experience gained from the efforts made in African cities had following learning lessons:

- The demonstration projects in 7 selected cities focussed on improving efficiency in water management instead of augmenting and adding additional quantities of water supply.
- The projects also focussed on mitigation of pollution of the water sources.
- Other aspects covered Capacity Building for improving assessment and monitoring systems, enhancing regional capacity, reducing unaccounted for water through demand management and control, retrofitting and capacity building at local levels.

The outcome of these demonstration projects included aquifer protection, developing community based strategies, new approaches of catchment management with the help of communities to deal with pollution, improved communications and experience sharing. Other important innovations included long-term sustainability through school education, introducing water education and water classrooms and value based approaches.

## Plenary Session V

In this session some experiences for managing water in Asia were shared. These related to city experiences of Fiangchenggong (China), Kuala Lumpur (Malaysia) and Kathmandu (Nepal) at city level and India at country level. Important highlights of Kuala Lumpur, Malaysia as presented by Mr. V. Subramaniam included (a) 24 hours supply and 100 per cent coverage with a few exceptions of illegal settlements; and (b) Production and supply has been privatised through BOT, but distribution, billing collection of revenues is with the government which has the implication of budget support to maintain this service. Sanitation is dealt with by a separate agency. Other important issues include unaccounted for water of 40 to 43 per cent leading to heavy losses and pollution of source due to mining, muddy water in pipes due to pipe bursts etc. The water in Kuala Lumpur is being brought from far away. Current sources will last for few more years. Hence, real push to water demand management. The steps taken to improve the efficiency and reduce government budgetary support include improving water demand management, reducing water demand through pricing policy and value education. Steps to legalise piped water supply to the informal settlements at a reasonable charge so as to stop theft of water and reduce non-revenue water.

Mr. Wenjie Lie, the Vice Mayor of the Municipal Government of Fiangchenggong City of China having a population of 760,000 with good geographical location in the southern province and having potential to attract outside entrepreneurs shared his city experience. The main issues included multiplicity of stakeholders and protection of water sources (lakes, rivers, wetlands). The Municipal Government has lent active support through participation of the departments dealing with economic development, safety of the water supply systems, enforcing strict control on polluters and subsidising water supply for the poor people. The city government is making effort to integrate wetland protection into waste water strategy.

Mr. Kaushal Nath Bhattarai, General Manager of Nepal Water Supply Corporation, Kathmandu gave his city experience. The Kathmandu valley has 5 towns and broad features include supply duration of 3 hours every day with a population coverage of 85 per cent. The issues of concern are leakage and wastage of 37 per cent (unaccounted for water), over staffing, collection inefficiency of 72 per cent and cumulative accumulation of arrears in revenue collection for several months. The important problems include lack of capital investment, labour problems (trade unionism) and donor conditionalities which are not possible to be fulfilled by the NWSC. The demand – supply gap is increasing every day. There is no legal framework to attract private sector involvement. Good practices being attempted in the valley are (a) Water rationing for equitable distribution; (b) Water supply to poor communities through tankers; (c) High tariffs for high volumes; and (d) Low cost leakage control systems.

Mr. VB Ramaprasad, Advisor, Ministry of Urban Development and Poverty Alleviation, Government of India, discussed major issues, strategies and priorities for urban water and sanitation sector. In India the provision and supply of water and other utilities is the responsibility of state and local governments. To facilitate this process, the Central Government provides plan fund allocations, budgetary resources, technical guidance and advice. Funding from donor agencies and other financing institutions is also facilitated both by Central and State Governments. The Water Policy of 2002 gives top priority to drinking water though operationalisation is still a real problem. The main issues include shortage of funds, inadequate planning due to lack of management information and appropriate data, technical and operational problems, weak institutional set-up (local bodies and utilities), low system efficiency and environmental problems.

Efforts to improve the sector performance include financial and institutional reforms, improving MIS and data base. Most important recent initiatives include creation of a Challenge Fund for metropolitan cities and accessing capital markets through Pooled financing for smaller local bodies with an intermediation of a proposed State level body.

During the discussion that followed these presentations, the sum and substance of these experiences was that there was a big role of urban water demand management. Private sector has a role to improve efficiency of water utilities and also for bottle water supply. The issues that need constant focus are water tariffs, innovative financial mechanisms, organizational mechanisms, innovative technologies, design facilities etc. The need for protection of fresh water resources was highlighted besides the need for Asian Cities Capacity Building network.

The Plenary Session V was followed by Working Group discussions to develop guidelines for Water for Asian Cities Programme. The participants were divided into three groups to develop guidelines for Water for Asian Cities Programme. The first group worked on programme priorities, the second on implementation strategies and the third on Partnership Arrangements. The important outputs of each group are given below:

### **GROUP I: Programme Priorities**

The priorities identified by the group covered:

- Promoting urban water demand management - a comprehensive and a holistic approach with focus on serving the unserved and underserved populations, evaluate the cost effectiveness of every measure taken, reduction of UFW etc.
- Pro-poor governance through institutional reforms and focus on women and simplifying procedures to reduce corruption.
- Income generation linked to water supply and sanitation by involving the community in service provision and maintenance.
- Integrated environmental sanitation by linking solid waste management and appropriate technological options.

The cross-cutting issues included value education, sustainability of political will, capacity building, environmental protection, MIS, equity issue, mainstreaming gender, monitoring and evaluation, documentation of best practices and dissemination.

### **GROUP II: Implementation Strategies**

The broad areas covered include:

- Administrative issues;
- Implementation Strategies, covering networking, upscaling and information exchange;
- National Demonstration and sharing through city demonstration projects and best practices;
- Information exchange by way of regional study visits and building linkages with other programmes;
- Capacity building through both training and non-training initiatives; and
- Developing monitoring tool for programme guidance and decision making.

### **GROUP III: Partnership Arrangements**

The group presented the need to develop partnership arrangements first at primary level between citizens and local governments and then at a secondary or regional/international level between UN-HABITAT and all other agencies with well-defined terms of agreement.

The tentative list of possible partners has been identified which include a range of primary stakeholders, resource centres, financing agencies and funds, as also international and bilateral agencies.

The group also outlined some of the parameters for *promoting* partnership arrangements such as, catalytic support, scaling up of best practices, avoiding duplication and competitiveness among programmes and use of existing institutions and networks.

### **Closing Session**

The Chairperson Mrs. Margaret Catley Carlson gave a summary of the findings and recommendations of the three working groups, noting the strong interest expressed by the participating cities to join the Water for Asian Cities Programme. She further highlighted the importance of the deliberations and its relevance for the Third World Water Forum. She also acknowledged the support of the participants for coming with very brilliant recommendations in a short span of time.

In his closing remarks Mr. K. Kosal Ram, Secretary, Ministry of Urban Development and Poverty Alleviation, Government of India, endorsed the significant achievements of the meeting. He, however, drew the attention of the participants to the paradoxical situation in the country as India uses only 30 per cent of the surface water while 70 per cent of the river water goes into the sea. Cherrapunji is one of the wettest place in the world but is facing drinking water crisis. He cited examples of some best practices of rain water harvesting.

- In Ramanath district in Tamil Nadu (India) each family collects rain water for its domestic use.
- Shimla Municipal Corporation is maintaining a thick forest of 1100 Ha., which helps to harvest rain water to sustain regular water supply to the city.
- Mumbai is giving standpost to a group of families which is being used through hand pumps using underground water.

He said that there was a need to emulate the example of Israel as it would be criminal to waste water because there was urgent need to conserve it. Retrofitting of old pipes will prevent leakages and should be taken up through utility mapping. In India a new scheme to identify new water aquifers and connect them to cities has been taken up by Government of India in ten different States.

Public Private Partnership is a new tool being discussed today but municipalities have to come up with asset management plan, proper contract technique and dedicated streams of revenue for taking up water sector reforms. Some other steps like water education, water governance and water demand management will go a long way in water management. He urged the participants to go back with renewed determination to do something from what they have learnt during the consultation meeting.

Dr. K.E. Seetharam of ADB thanked the UN-HABITAT as well as Government of India for giving ADB this opportunity to get involved in this meeting as a development bank in Asia. He was

happy that the discussions were very useful and will have a stimulating effect in the sessions in 3<sup>rd</sup> World Water Forum. He also mentioned that the time and money spent by ADB has given a good rate of return through rich deliberations. He hoped that the momentum will be kept for the 3<sup>rd</sup> World Water Forum in Japan next year.

In his closing comments, Mr. Kalyan Ray noted the unanimous recommendation of the Regional Consultation to UN-HABITAT to formulate and operationalize the Water for Asian Cities Programme and assured that consultations with interested donors and other partners would begin immediately following the Consultation.

He acknowledged with gratituded the support and cooperation of all active partners, notably, the Government of India, the Asian Development Bank, the Government of The Netherlands, and the 3<sup>rd</sup> World Water Forum in the organization of the Regional Consultation. He expected that this support would continue in the programme development phase.

# **ANNEXES**

**ANNEX I: PROGRAMME OF EVENTS**

**ANNEX II: ADDRESSES DELIVERED AT  
THE INAUGURAL SESSION**

**ANNEX III: LIST OF PARTICIPANTS**

## Annex I: Programme of Events

### Wednesday, 10<sup>th</sup> April, 2002

08:30 AM Registration

#### Inaugural Session

- 09:30 AM Lighting of Lamp
- 09:40 AM Inaugural Song by children of Sri Sathya Sai International Centre
- 09:50 AM Welcome Address by Mr. K. Kosal Ram, Secretary, Ministry of Urban Development and Poverty Alleviation, Government of India
- 10:00 AM Message from Ms. Anna Kajumulo Tibaijuka, Executive Director of UN-HABITAT
- 10:10 AM Message from Mr. Frank Polman, Country Director, Asian Development Bank, New Delhi, delivered by Mr. Alex Jorgenson
- 10:20 AM Remarks by Dr. Brenda Gael McSweeney, UNDP Resident Representative and United Nations Resident Coordinator
- 10:30 AM Remarks of Mr. A. J. Diphooorn, Ministry of Foreign Affairs, Government of The Netherlands by Dr. Hans Knijnenburg, RNE.
- 10:35 AM Inaugural Address by Mr. Bandaru Dattatreya, Minister of State for Urban Development and Poverty Alleviation, Govt. of India
- 10:55 AM Vote of Thanks by Mr. P. K. Pradhan, Joint Secretary, Ministry of Urban Development and Poverty Alleviation, Government of India

#### Plenary Session I

Session Chair: Mr. Ranjith Wirasinha

- 11:20 AM Introductory Remarks by Session Chair
- 11:25 AM Keynote address: *Water and Sanitation for the Urban Poor*  
by Dr. Kulwant Singh, Executive Director, Human Settlement Management Institute, New Delhi
- 11:45 AM Keynote address: *Promoting Urban Water Demand Management*  
by Mr. Saul Arlosoroff, Consultant, UN-HABITAT
- 00:05 PM Keynote address: *Improving Urban Water Governance*  
by Mr. Alex K. Jorgensen, Asian Development Bank
- 00:25 PM *Experience of Water and Sanitation Programme in South Asia*  
by Ms Pushpa Pathak, Water and Sanitation Programme (WSP), South Asia



## Plenary Session II

Session Chair: Mr. V. Suresh, Chairman and Managing Director, HUDCO

- 02:00 PM *Training and Capacity Building for Urban Water Management*  
by Dr. Maarten Blokland, Vice Rector, IHE, The Netherlands
- 02:20 PM *Value-based Water Education*  
by Dr. Victor Kanu, Director, The African Institute of Sathya Sai Education,  
Zambia
- 02:40 PM *Indicators and Best Practices in Urban Water and Sanitation*  
by Mr. Andre Dzikus and Dr. Graham Alabaster, UN-HABITAT

## Plenary Session III

Session Chair: Mr. Kalyan Ray, UN-HABITAT

- 03:35 PM *NGO Executed Water Project in Chennai, India*  
by Mr. V. Srinivasan, Sathya Sai Sewa Organization
- 04:05 PM *Experience from Papua New Guinea: A Pacific Island State*  
by Mr. Amo Mark, Deputy Managing Director, PNG Water Board
- 04:15 PM Discussion on *Urban Water and Sanitation Priorities in the region*  
Session Chairperson: Dr. Kalyan Ray, UN HABITAT;  
Country Panellists: Bangladesh, Papua New Guinea, Nepal and Malaysia
- 06:30 PM *Creating Awareness on Water: A Special Cultural Programme on the theme  
"Story of Water is the Story of Life"*  
by Sri Sathya Sai International Centre, New Delhi

## Thursday, 11<sup>th</sup> April, 2002

### Plenary Session IV

Session Chair: Ms. Margaret Catley-Carlson, Chair, Global Water Partnerships

- 09:00 AM Introductory remarks by Session Chair
- 09:15 AM *The Water, Sanitation and Hygiene (WASH) Campaign*  
by Mr. Gouri Ghosh, Executive Director, Collaborative Council for  
Water Supply and Sanitation
- 09:30 AM *An innovative Approach to Urban Sanitation*  
by Ms. Sheela Patel, SPARC, Mumbai, India
- 09.45 AM *Lessons from ADB's Operations Evaluation of water and sanitation projects:  
An Integrated Approach for the Future*  
by Dr. K.E. Seetharam, Asian Development Bank, Manila
- 10:00 AM *Experience from another region: Water for African Cities*  
by Mr. Kalyan Ray, UN-HABITAT

## Plenary Session V

Session Chair: Ms. Margaret Catley-Carlson, Chair, Global Water Partnerships

- 10:40 AM Experiences from the Region
- *Managing Water for Asian Cities: Kuala Lumpur, Malaysia*  
by Mr. V.Subramaniam, Dy. Director, Selangor Water Works Dept,  
Kuala Lumpur, Malaysia
  - *Experiences of Fiangchenggong City of China*  
by Mr. Wenjie Lie, Vice Mayor, Municipal Government of  
Fiangchenggong
  - *City Profile: Kathmandu Valley Towns*  
by Mr. K.N. Bhattarai, General Manager, Nepal Water Supply  
Corporation.
  - *Urban Water and Sanitation Sector – India*  
by Mr. V.B.Rama Prasad, Ministry of Urban Development and Poverty  
Alleviation, Government of India

## Working Groups

- 11:40 AM *Water for Asian Cities: A Call to Action –  
Developing guidelines for Water for Asian Cities Programme:*  
Brief by Session Chairperson for Working Groups on:
- Programme Priorities
  - Implementation Strategy
  - Partnership Arrangements

## Plenary Session VI

Session Chair: Ms. Margaret Catley-Carlson, Chair, Global Water Partnerships

04:30 PM Presentation by Working Groups

## Closing Session

- 05:15 PM Summary of Findings  
by Ms. Margaret Catley-Carlson
- 05:35 PM Closing Remarks  
by Mr. Kosal Ram, Secretary, Ministry of Urban Development &  
Poverty Alleviation, Government of India
- 05.50 PM Vote of Thanks and Close of Regional Consultation

## **Annex II: Addresses Delivered at the Inaugural Session**

### **Welcome Address by**

**Mr. K. Kosal Ram, Secretary, Ministry of Urban Development and Poverty Alleviation, Government of India**

It is indeed my privilege to welcome you all on behalf of Ministry of Urban Development and Poverty Alleviation, Government of India for the 2-day "Regional Consultation on Water and Sanitation for Asian Cities" followed by the "Preparatory Meeting for the 3<sup>rd</sup> World Water Forum" for another 2 days. A large number of participants from different parts of the world have gathered here to participate in one of the most important concerns for today. This speaks of the importance being attached to the aspect of water.

I will like to thank the organizers for selecting Delhi as the venue for Regional Consultation and Preparatory Meeting. Delhi is witnessing many innovations in the provision of urban infrastructure. Having reached a population figure of 13 million, it offers many challenges for planners, engineers, administrators and politicians. I am sure that those coming to Delhi for the first time might notice these changes being taking place and those coming for the first time will take this as a bench mark for their next visit.

At the beginning of 2000, one-sixth (1.1 billion people) of the world's population was without access to improved water supply and two-fifths (2.4 billion people) lacked access to improved sanitation. The majority of these live in Asia and Africa. Sixty seven per cent of the global population was without access to improved water supply and Eighty per cent without access to improved sanitation live in Asia. To reach the universal coverage by 2025, almost 3 billion people will need to be served with water supply and more than 4 billion with sanitation.

Though India continues to be predominantly rural, its urban population is growing at a rapid pace. Between 1951 and 2001, the urban population has increased by nearly 4.6 times from 62 million in 1951 to 285 million in 2001. Some of the Indian States like Tamil Nadu and Maharashtra have reached more than 40 per cent urbanization, states like Gujarat, Karnataka and Punjab will soon be touching this milestone. The growing urbanization opens up the canvas of more challenges in terms of resource management and waste disposal.

Water is one of the major issues that the country is facing today. Today 90 per cent of our urban population is covered with protected water supply. But this statistics of coverage and quantity of water supplied in the cities may hide several realities about the quality and quantity aspects. Issues like hours of supply, number & distance of stand posts, time taken to collect water, number of users per stand posts, etc. are equally important indicators to assess urban water supply. Unaccounted for Water is another area that needs to be tackled. But more importantly greater emphasis is now being laid for the protection of surface and ground water source and recharging of the ground water aquifers through rain water harvesting techniques.

These issues calls for improving urban water governance. The objective being to ensure equity in distribution, quality service and participation of community in protection and management of water sources. Private sector initiatives in this sector have been very limited. However, informal water market (which includes both private sector initiative and NGO/CBO run entities) exists in many Asian cities. The poor relied almost exclusively on this sector for meeting water needs.

There is a need to assess the economics of this sector and to bring it in the umbrella of the formal system.

Poor water supply and sanitation have a high health risk. Thus investment in water and sanitation can bring valuable benefits to both social and economic development of a country.

The agenda for this Consultation meeting covers some of these issues. The Regional Consultation on Water and Sanitation for Asian Cities is followed by the Preparatory Meeting for the 3<sup>rd</sup> World Water Forum. The two events are planned in such a way that the Action Plan of Regional Consultation will contribute significantly to the World Water Forum scheduled for March 2003 in Osaka, Japan.

It is my pleasure to welcome the professionals from various international agencies for this event today. I thank you for considering New Delhi for this event. I hope that this event will come up with a good strategy for the region for furtherance to the Special Session in 3<sup>rd</sup> World Water Forum on "Water and Cities" in Osaka next year.

I hope that your stay in Delhi is comfortable. The weather is still pleasant as we enter to the summer phase when the mercury may touch 45° C. We have arranged a cultural evening for you and some field excursions for you to keep your evenings busy. My very competent team of officers is taking all the care for your comfort. Still if you feel some difficulty, please let us know and we will try to facilitate in whatever best possible manner.

I once again welcome you and hope that you will be able to make rich contribution to the deliberations of this Regional Consultation which should come out with an excellent strategy paper for the World Water Forum.

Thank You.

**Message of  
Dr. Anna Kajumulo Tibaijuka, Executive Director, UN-HABITAT  
for the Regional Consultation on Water and Sanitation for Asian Cities**

Mr. Chairman, Excellencies, Distinguished Delegates, Ladies and Gentlemen,

I bring to you warm greetings from a revitalized UN-HABITAT, poised to take on new challenges as we enter a new Millennium. I want to express my deep gratitude to the Government of India, and to Honourable Anant Kumar, Minister for Urban Development and Poverty Alleviation in particular, for hosting this Consultation so graciously. My appreciation also goes to the Asian Development Bank, our valued partner in the region, for joining forces with us in addressing the issue of water and sanitation in cities – an issue that is taking centre stage in the ongoing debate for sustainable development.

Mr. Chairman, The Asia-Pacific region – a region steeped in culture and spirituality - evokes great interest and respect to all. More recently, the region has been known for its economic vibrancy and heady growth. Yet, the long-term sustainability of this development is now seriously threatened as a growing water crisis takes on an ominous dimension in large parts of Asia. Per capita freshwater availability in the region is now among the lowest in the world. Over abstraction of ground water has reached critical proportions in coastal cities like Dhaka, Jakarta and Manila. Intense competition is developing between cities for shared water resources. Health risks continue to rise as many cities recklessly discard untreated human and hazardous wastes into freshwater bodies. The sustainability of our cities tomorrow will be closely linked to how we manage their precious water resources to day.

Excellencies, Ladies and Gentlemen, conserving the precious water resources for our cities is undoubtedly an urgent priority, but the most daunting challenge that we face today comes from the spontaneously growing urban informal settlements. Call them in whatever name you like – slums, shanties, bustees, these cities within cities, are today home to nearly half of our urban populations. Hundreds of millions of our fellow citizens living in these settlements are denied every day a fundamental human right -the right of access to safe water and basic sanitation.

It is little surprise that the poor pay a heavy price for the lack of these basic services through death, disease and lost dignity. Mr. Chairman, it is unbelievable but true that by the time you conclude your discussion this morning, some 1,000 children will probably lose their lives in this region, because their water supplies are contaminated and sanitation is inadequate or non-existent.

Ladies and Gentlemen, The Millennium Summit provides us with clear goals to set our priorities. Improving the living conditions of 100 million people living in slums by 2020 will remain a distant dream if we are unable to help them to access safe water and adequate sanitation. It is because of this, that UN-HABITAT has included access to safe water and adequate sanitation as two of the four indicators for monitoring progress on improving living conditions in slums across the world.

Putting in place an effective monitoring mechanism will be an important first step to address the Millennium Summit goal. But clearly that will not be enough. A fundamental change in our approach is required to raise water and sanitation high on the political agenda, both at national and international levels. We need a strategy that is visible, effective and affordable to all.

Mobilization of political will and commitment will, unquestionably, be a central element of this strategy. There are powerful health and economic arguments to convince governments in developing countries to invest more, and invest now, in water and sanitation. Advocacy can be an extremely powerful tool to raise the awareness of policy makers on the role that safe water, sanitation and hygiene can play in reducing child mortality, girls education and improving earning capacity of the poor .

The northern governments also need to ponder on how official development aid could be more targeted towards this sector to improve delivery and coverage, specifically, for the poorest in poor cities. Debt-swap and other innovative mechanisms could be considered in this context.

We are focusing on this issue through our two global campaigns and the water education programme. The WASH or Water, Sanitation and Hygiene campaign launched by the Collaborative Council is also a welcome and timely initiative, and I assure it of our full support.

Secondly, the urban water and sanitation crisis must be viewed for what it really is: a crisis of governance – of weak policies and poor management. The most serious obstacle to making a clear break from the past is our inability to perceive the economic, social and environmental value of water in all its competing uses and to put in place realistic pricing policies that will allow its conservation, discourage waste, and ensure that the poor will be able to meet their basic needs at a price they can afford.

A realistic pricing policy for water, administered with due safeguards for the poor, will provide a sound foundation for mobilising the much needed financial resources for the expansion of service coverage to the growing numbers who still remain unserved. The pricing policy can, and must, be used as an instrument of social equity.

Thirdly, there is an urgent necessity to manage the urban water demand onto a sustainable track before it spirals out of control. Unfortunately, much less attention is paid by governments and the international community to demand management strategies than they actually deserve. This perspective must change. Effective public information campaigns and water education can go a long way to sensitise people to use water with responsibility and reason. Demand management could “buy precious time” by postponing costly investments.

Fourthly, we must address with priority the increasing threat to the health of the urban poor from water pollution caused by wastes generated by the cities. Investment in sanitation, waste disposal and drainage is an investment in health and economy of the cities.

Finally, in pursuit of our goal, we must draw upon the rich and diverse resources of all partners in the civil society. In this partnership, each stakeholder has a unique role to play. Governments have the responsibility to provide an enabling environment for this partnership to flourish. The private sector can bring in significant efficiency gains in the sector while communities, particularly women, can be important agents for change. The Pune group toilet scheme initiative led by NGOs (note: SPARC of Shiela Patel played an important role in this initiative) with the support of the local government is a remarkable example of this partnership. We should exchange information and learn from these experiences.

Distinguished participants, as you begin your consultation in New Delhi, addressing the water and sanitation needs in Asian cities, I assure you that UN-HABITAT and its partners share fully in your concern and stand ready to support your effort.

I wish you Godspeed in your deliberations.

**Message from  
Mr. Frank Polman, Country Director, Asian Development Bank  
New Delhi**

Mr. Bandaru Dattatreya, Honourable Minister of State for UD&PA, Mr. K Kosal Ram, Secretary, Urban Development, Dr. McSweeney, UN Representative, Mr. Kalyan Ray, UN-HABITAT, Fellow Delegates and Colleagues,

Good Morning.

It is a pleasure for me to be here on behalf of the Asian Development Bank. We congratulate the MoUD for hosting this meeting of esteemed delegates and thank the UN Habitat for organizing the timely event. The ADB is pleased to support your efforts.

The water supply and sanitation sector in many of ADB's member countries is characterized by inefficient delivery of services (including high unaccounted for water and intermittent water supplies) and inadequate coverage with piped water supply, especially for the urban poor. One of the main reasons is that water utilities are not operated independently, run according to principles of accountability and transparency, and are loosely regulated. An equally important factor is that the price of water, the water tariff, is determined by local and national governments. As a result, water tariffs are frequently based on political considerations and vested interests instead of the costs that are involved in producing and delivering water. Tariffs are inadequate to contribute to new capital investment and the urban poor remain unconnected to piped water. The urban poor also have little access to proper sanitation, basically for the same reasons, lack of investment, lack of sustainability. This situation unfortunately will become worse unless there is a major change in policy and financial commitment to improving basic essential services, at all levels of government.

Over the next 10-15 years, as the rural to urban migration continues, the urban population will swell by hundreds of millions of people across the region. The already overloaded water and sanitation systems in most major, and small, city systems, will not be able to meet demands without massive investments, in terms of billion of dollars every year. Because of shrinking public funding, there has been a concerted attempt over the past decade to involve the private sector in various financing modalities, from contract management to concession to BOT. Unfortunately, such private sector involvement has been slow to develop.

The main reason for this lack of interest is the lack of financial viability of most urban water and sewerage utilities. There is urgent need to improve the fiscal picture of urban water and sanitation services; through revenue enhancement, more efficient operation, and good governance.

ADB's water policy which was approved on 16 January 2001, recognizes that in order to make municipal water and sanitation services sustainable, good governance is essential, and a "firm transparent government policy is required".

ADB's water policy promotes water as a socially vital economic good, that should be sustainable and implemented through transparent participatory procedures. The policy elements include: national level water sector reforms; expansion of water supply, especially to the poor, increased conservation and system efficiencies, regional cooperation regarding shared water resources, information exchanges, improved governance and capacity building.

Therefore, all ADB's loans to the water supply, sanitation and urban sector promote such policies through loan covenants and by including the related revenue enhancement, regulatory and

transparency measures, as integral components of projects. This is achieved through a combination of legislative and regulatory changes, capacity building of the municipal authorities, training of staff and extensive public consultations and reporting to make the proceedings and the project more transparent.

This policy is similar to those of the MoF and MoUD here in India, and UN Habitat and we are therefore pleased to support this consultation. We trust that the deliberations here in Delhi will result in focussed, realistic recommendations to be carried forward to the senior level discussion here, and in Osaka next year.

Thank you.



**Address by  
Dr. Brenda Gael McSweeney, UN Resident Coordinator and  
UNDP Resident Representative**

Honourable Minister Bandaru Dattatreya, Podium Guests, Friends All, Good Morning!

I am happy to be here at the inauguration of the regional consultation on water and sanitation for Asian cities, which forms part of a global dialogue indeed a global movement of the "World Water Forum". I remember a few years ago during my days heading the UN-volunteers programme, when we were part of the Nairobi launch of UN-HABITAT's "Water for African Cities" initiatives. It's a delight to see the beginning of such a similar programme for Asia. Water and Sanitation are not only environmental issues – they are crucial people-centred development issues.

Across India, as in many other countries, water and sanitation is the number one issue for the urban poor. Services in the poorest communities tend to be under-provided, and even the high-income areas are feeling the pressure of acute water shortage. The poor are doubly disadvantaged – they not only get inadequate supplies of water, but the little water they get is often of bad quality. Then they often end up spending more time and resources in getting such services from private vendors. Women pay an even higher price, as they're the ones who fetch water, and are most affected by the lack of adequate sanitation facilities. We believe that development is sustainable if it is owned and driven by communities. Also that development which is not engendered is endangered! Anna Tibaijuka in her message put an accent on women and water. Recently we were in Neemi village, outside of Jaipur, which has transformed from a migrating community because of lack of water, to a very prosperous one which sends 50 truck loads of vegetables all the way to Delhi and Gujarat! The women of Neemi have more time for new cash crops now, as they don't have to walk miles with their little daughter helpers at their side, in search of water. The village pond still had water even after 4 years of drought. Leaves on the trees in the village and surrounding areas were green and luxuriant, in stark contrast with shriveled shrubs we saw as we drove to Neemi!

A quiet revolution has been made possible because of the Partnership of the community with a local NGO, supported by UNDP. Rajasthan annals are full of stories about different types of water harvesting structures – *kund*, *tanks*, *johad*, *stepwells*, *nadi* – just to mention a few. There are lessons here for cities as well. Traditional systems of rainwater harvesting are more resilient and responsive to crises than "modern" methods based on intensive exploitation of groundwater. The experience of several organisations like the Kutch Mahila Vikas Sangathan (KMVS) and the Barefoot College, Tilonia shows that while regenerating the resource base may be a technical issue, management and administration of water resources is an issue of governance – with vast potential for women's empowerment. The process of re-evaluation and re-formulation of policies and priorities in the water sector that has been initiated, offers a unique opportunity to integrate not only traditional technologies, but also social and gender equity objectives into integrated water management. Recently Prime Minister Vajpayee, speaking on the national water policy, flagged the issue of community participation when he said that we should recognise that the "community is the custodian of water".

The United Nations, with its commitment alongside the government of India to promoting gender equality and strengthening decentralisation for human development, and its partnerships with the government and civil society, is well placed to facilitate interaction and creative exchanges

between various actors in this sector. Heads of state and government agreed on a set of development goals at the 2000 summit convened by UN Secretary General – Kofi Annan. The millennium development goal millennium development goal of improving the living condition of at least 100 million slum dwellers by 2020, can only be achieved if we put water and sanitation high on the development agenda. Experience shows that inadequate water and sanitation aggravates poverty in urban areas, as the poor are forced into a vicious cycle where they have to spend their limited resources on healthcare to treat water borne diseases.

The main challenge in urban areas is to ensure quality and access of services for the poor, at affordable prices. In an era of increasingly competing demands competition for water and other resources and services, the key is decentralized management. In Pune, the municipality's commitment to ensure that the poor have access to sanitation is a major example of community – driven provision of services. This experience is being taken forward in Bangalore and Mumbai. In fact in the latter, the community work of the national slum dweller federation and SPARC was recognized early on by UN-HABITAT as path breaking. But many urban local bodies do not have adequate resources and talents to undertake projects and work directly with communities. There is clearly a need for strengthened capacities and sharing of best practice for better water resource management services provision. Is a big "dollar injection" really required ?! No! A financial injections without the backing of ideas from the pavements upwards and capacities to support the interventions, will not lead to sustainable results.

At the city level, co-ordination and partnerships between water providers, city administrators, and policy makers is one low-cost investment that has proven to be of high-benefit. While looking for high-tech innovations to help meet needs, let's keep in sight people's own traditional technologies, like reviving 'rainwater harvesting' of which we spoke of earlier. I recall one of the campaigns being run here in India. The campaigners had used the slogan "No water? Look up!" And what they were trying to promote was simply there are a whole lot of equity considerations in the distribution of this scarce water resource that require active involvement of communities, especially the marginalised living in slums.

Several experiments have been undertaken in this area in India. Though we cannot say there is a single model that has been completely successful, what we know is that a community-driven approaches have, is far more positive track record than top-down ones. It's our hope for this consultation, and for the regional and global water movement, that we stay open to innovative ideas. So I'm glad we're gathered today to share experience for the way forward with one another.

Thank you very much!

**Message from  
Mr. A.J. Diphorn, Head of the Water Policy Unit  
The Netherlands Ministry for Development Co-operation**

**Dutch commitment to Water sector**

In March 2000 The Netherlands Government, in partnership with the World Water Council, hosted the Second World Water Forum and convened a parallel Ministerial Conference. At the Ministerial Conference, the Netherlands Ministry of Foreign Affairs pledged to increase its commitment over the next four years to make an additional NLG 100 million per year (Euro 45 million, 40 million USD) available for water-related activities in developing countries. It was further stated that cooperation would focus on support for the development of coherent strategies and policies and for building institutional capacities to achieve integrated water resources management.

**The Netherlands Water Sector Program**

The Netherlands Water Sector Programme is implemented through both bilateral and multilateral programmes. A challenge is not only to create synergies between these programmes, but also to have them mutually reinforce each other. As the absorption capacity of most recipient countries is limited, it is expected that during the first one or two years, most of the additional funding will go to international programmes for improved water management, after which the focus will shift gradually to the expansion of water sector programmes in countries which have chosen water as a sector for development cooperation.

***Bilateral cooperation***

The Netherlands Government has made the sectoral approach a leading principle for implementing its **bilateral** development policy to be applied to support for all sectors including the watersector. The sector approach aims to improve the quality, effectiveness and sustainability of the aid provided. In the approach the donor follows, within the existing policy framework, a long-term, programme-based cooperation in the context of the sector policy of the receiving country.

According to a recent internal evaluation study, Dutch bilateral aid to the water sector totalled an estimated NLG 2 billion from 1988-1998, which is equivalent to about NLG 200 million per year. Drinking water and sanitation accounted for 45 percent of total disbursements and irrigation and drainage for 20 per cent. The remaining support went to water transport, coastal protection, flood control and hydrological studies.

During this period, the emphasis in most countries changed from a technical and construction-oriented perspective within the (sub)sector to a more integrated perspective which takes account of social, institutional, economic and environmental issues.

As a result of the reduction in the number of countries eligible for structural bilateral assistance, and because of a concentration of assistance in three to four sectors per country, a limited number of countries receive support in the water sector. Out of the 22 countries which remain on the bilateral list, eight countries have chosen water as a sector for development cooperation. These countries are: Bangladesh, Egypt, India, Indonesia, Mozambique, Palestine Authorities,

Vietnam and Yemen. Besides these eight countries, there are two countries, Tanzania and South Africa, where aid is given to water supply and sanitation within the framework of support to, respectively, health and local government. Countries which are eligible for support to the environment sector can also apply for support to improved water management

## **India**

India has been a longstanding partner in development cooperation in the water sector. The programme in India is concentrated in three states, Gujarat, Andhra Pradesh and Kerala, and the dominance of states in water provision means that each state-level programme will need to reflect policies and capabilities at that level. The Netherlands development assistance to the water sector in India has a long history. Rural water supply projects were first introduced in 1977 and thereafter the water sector became the focal point of project aid provided by The Netherlands to India. In all, 86 per cent of the total Netherlands project assistance in the 1980-92 period was in the water sector under three headings:

Water transport, 40 per cent total.  
Rural water supply and sanitation, 35 per cent.  
Land and water, 11 per cent.

Under the theme environment assistance was provided to water pollution control in the cities of Kanpur and Mirzapur in the framework of the Ganga Action Plan.

## ***Collaboration at the International Level***

The (above mentioned) additional funds made available by The Netherlands for water-related activities in developing countries will initially be mainly used to support activities at the international level.

Support will be provided to organizations like the Global Water Partnership, to regional programmes for improved river basin management and to partnership programs with development banks and other international organizations. In addition, ad-hoc partnerships may be developed with like minded-donors for specific programmes.

## ***Partnerships with Multilateral Organizations***

The development of long-term, structured and funded partnerships with multilateral institutions and other partners at the international level has the potential to greatly enhance the impact of Netherlands assistance to the water sector. This can be done through strategically-placed inputs that influence the approach and effectiveness of the (often much larger) programmes of these development partners. One of such programmes is the UN/habitat Water for African Cities program, which includes a capacity building component. This component is now funded by the Ministry of Foreign Affairs. The focus on capacity building at local and national levels for urban water and sanitation management is extremely important for a successful application of a sectoral approach in the urban water sector, as without adequate capacity for sustainable development of the urban water sector, this approach will not work. We follow with interest the development of a similar program for the Asian continent, which will be discussed during your consultations today and tomorrow.

I hope that you will come up with a coherent plan of activities, which will result in improving water services to the millions of poor people in Asian Cities, who now suffer from inadequate water management, and I wish you successful deliberations.

## **Inaugural Address by Mr. Bandaru Dattatreya, Minister of State for Urban Development and Poverty Alleviation, Government of India**

Distinguished Delegates and Friends,

I am indeed very happy to be in your midst to address this gathering of professionals, representatives of United Nations, bilateral and multilateral agencies, country governments, local authority and others dealing with water supply and sanitation in different countries of the Asian Region.

Availability of drinking water and provision of sanitation facilities are the basic minimum requirements for healthy living. Water supply and sanitation being the two most important urban services -have wide ranging impact on human health, quality of life, environment and productivity. In fact, water forms the life-line of any society. All the known civilizations have flourished with water source as the base and this is true in the present context too. Specific plans and schemes have been implemented by national governments to accelerate supply of safe water and sanitation. These efforts have made considerable success to reduce backlog in water supply and sanitation sector. It is, however, widely felt that the gap in water supply and sanitation is fairly high. As these facilities are crucial for the achievement of goal of "Health for All", our Government is committed to provide drinking water to every settlement in the country and will go all out to achieve the goal of expansion and improvement of sanitation facilities, along with other social infrastructure.

In this context, Asian Region is facing a major challenge. At the turn of the century, 60 per cent of the world's population of 6.1 billion lived in Asia. Urban population growth in Asia at 2.7 per cent per annum is 27 per cent higher than global average. The Asian Region is expected to double its urban population by the year 2020 and by the year 2025, the majority of regions population will live in cities.

The Census of India 2001 puts India's population at 1027.02 million. The share of urban population increased to 285.3 million in 2001 from 217.6 million in 1991, showing an increase of 67.8 million in absolute terms. About 90 per cent of urban population in India have access to potable water supply, whereas in case of sewerage system the coverage is only 49 per cent. The concern for improving the water systems and sanitation have been well discussed at various levels.

The water and sanitation sector requires high capital investment with a long gestation period. The funds are traditionally being made available through both Central & State Governments grants and budgetary support. However under the current economic scenario, the extent of Government investments and those of Urban Local Bodies are bound to be limited owing to resource constraints. Therefore, the financial institutions such as Housing and Urban Development Corporation (HUDCO), LIC, ILFS & International Financial Institutions such as the World Bank, ADB, JBIC, USAID etc. have a key role to play. As far as funding of water supply and sanitation sector is concerned, HUDCO has played a key role with a share of about 80% of institutional investments. It has financed 340 water supply projects with a total project cost of Rs.14237 crores (\$2906 Million) and loan commitment of Rs.6963.00 crores (\$ 1421 Million) spread over 17 states all over the country.

HUDCO has also been substantially successful in sensitizing the Urban Local Bodies (ULBs) on the need to evolve and implement water supply systems which are sustainable. A number of State and individual agencies have revised water tariffs and have adopted innovative cost recovery mechanisms such as Levy of advance registration charges, Connection charges, Enhancement of water tariff, Water benefit tax/water tax, Betterment charges, Development charges, Utilization from other sources such as octroi, property tax, sale of plots etc. and Charges from water Kiosks. Ground water recharging, rain water harvesting and recycling/reuse of waste water to conserve and encourage optimum utilization of precious water resources are also extremely important and shall have to be made mandatory.

The Hon'ble Prime Minister of India has announced a new centrally sponsored scheme called the Valmiki Ambedkar Awas Yojana (VAMBAY) to ameliorate the conditions of urban slum dwellers living below poverty line. The objective of the scheme is primarily to provide shelter or upgrade the existing shelter for people in urban slums. An integral sub-component of VAMBAY is a new National City Sanitation Project under the title "Nirmal Bharat Abhiyan". The implementation of VAMBAY will be dovetailed and synergised with other existing programmes and the availability of drinking water, sanitation and drainage facilities would be ensured under these programmes.

It is hoped India's Tenth Five Year 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. Apart from this, water is to be managed as an economic asset rather than a free commodity in exactly the same way as any other resource.

The water supply and sanitation sector will be a thrust area in the Tenth Five Year Plan. However, the requirement of resources to address the problem of water supply and sanitation is quite large and it is not possible to meet the same from budgetary resources. As against the investment requirement of Rs.22000 crores (about US\$ 4400 million) annually as per India Infrastructure Report, the budgetary support from Government sources are available only to the tune of Rs.5000 crores (about US\$1000 million) per annum thereby leaving a gap of nearly Rs.17000 crores (about US\$3400 million) per annum. Therefore, Government proposed to place emphasis on urban sector reforms to enable the urban local bodies to access market funds to bridge the gap between requirement and availability of resources. To support the reform measures, the Government have recently announced in this year's budget two Central level policy instruments by way of City Challenge Fund and Pooled Finance Development Fund which would be incentive based, grant facilities to support the requirement of transition cost of cities for moving towards credit-worthy institutional systems of municipal management and delivery. In addition, the public-private partnership will also play key role in the water supply and sanitation sectors.

The organisation of this event is very timely. We can take benefit of each others experiences in the areas of water and sanitation. I am sure this Regional Consultation will provide an excellent feed back, for the participating Governments and provide suggestions for strengthening the implementation of water and sanitation programmes in respective countries. We keenly look forward to the recommendations.

With these words, I take the opportunity to inaugurate the seminar and wish all success to the deliberations.

Thanks.

## **Annex III: List of Participants**

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O Precious Water !  
The very source of life  
We humbly bow to Thee!

Hope is burning in our hearts,  
Burning bright and strong  
Love is glowing in our hearts  
We can do no wrong.

The need of our planet  
The need of every man  
Is the gift of pure water  
In each and every land.

We need you, Precious Water  
We need your loving touch  
We crave your soft caress  
To us it means so much.

We could never live without you  
Not even for a day  
We have progressed in technology  
But still for you we pray.

If on earth we must survive  
Let's learn to love and share  
Not just think of me and mine  
But respect and treat with care

All the water that we have  
Use every night and day  
Without a second thought  
It could easily flow away.

We have hopes in our hearts  
That things will turn out right  
We have hope in our hearts  
We'll survive the darkest night.

Let's fill our heart with love  
And put our heads together  
We'll solve the planets problem  
Make water last forever!