

FINAL REPORT

Regional Implementation Meeting on Water, Sanitation and Human Settlements For Asia and the Pacific Bangkok, Thailand, 27-28 October 2003

I. CHAIR'S SUMMARY OF DISCUSSIONS

A. Water and Sanitation

1. Achievements

In Asia, the contribution of water to economic development, food security and human welfare is immense. Nearly 40 per cent of Asia's crop land is irrigated and produces about 70 per cent of its food. Improving access to safe drinking water and basic sanitation has been achieved in many countries by bringing about behavioral changes related to water, sanitation and personal hygiene to reduce incidence of water-borne diseases at least cost.

A number of countries have started to pursue an integrated, holistic approach to water and sanitation problems with attention at the river basin and eco-system level, involving different sectors of government and civil society. Such an approach is recognized as being compatible with greater decentralization and devolution of responsibility to the most appropriate levels.

Whilst recognizing that the primary responsibility for increasing water supply and sanitation coverage rests with government agencies, many achievements in the sectors have been made in partnerships between the public and private sectors and the NGOs. Successful partnerships have been achieved in several countries of the region in rainwater harvesting; community-managed water points; water concessions; provision of low-cost clean water; NGO-initiated public-private partnerships on sanitation improvement; urban wastewater treatment; ecological sanitation; and pilot sanitation projects.

Innovative and low-cost technologies have been developed for several countries lagging far behind in developing water supplies and sanitation. These include sanitary latrines; reticulated neighborhood sewerage systems; night soil biogas; house biogas credit guarantee schemes; biowaste to bioresource; and treatment of brackish water.

Innovative mechanisms for financing small-scale water and sanitation projects have been developed with the private sector to reduce poverty and improve the health and quality of life of poor people in developing countries. One example of such mechanisms is the Small-Scale Sustainable Infrastructure Fund, Inc. The mission of the Fund is to finance small-scale projects on water and sanitation and other similar projects to reduce poverty and improve health and quality of life of poor people in developing countries. This scheme provides opportunity for socially, ethically and environmentally motivated individuals and institutions to support pro-poor investments.

Major initiatives have been taken in formulating a regional water policy for Asia. The Asian Development Bank (ADB), for example, has formulated a regional water policy for Asia which has seven key elements: (i) promote a national focus on water sector reform; (ii) improve and expand the delivery of water services; (iii) foster the integrated management of water resources; (iv) foster the conservation of water and increase system efficiency; (v) promote regional cooperation and increase mutually beneficial use of shared water resources; (vi) facilitate exchange of water sector information and experience and (vii) improve governance.

Another initiative created to strengthen efforts in Asia on actions related to water, is the website network established after the 3rd World Water Forum as a follow-up to the portfolio of Water Actions announced at its Ministerial Conference.

Several countries are in the final stage of developing and adopting a common sub-regional strategy for managing water resources for their sub-region. In the Pacific, for example, consultations among national governments, NGOs and other stakeholders including regional agencies, have provided a good platform for formulating the Pacific Regional Action Plan for Water Management.

2. Challenges faced in implementation

Despite some sporadic achievements, the region as a whole, as well as some individual countries have not, so far, done too well in making significant progress towards achieving water-related MDG and JPOI goals. For example, approximately one-third of the rural population of Asia numbering 719 million are even today without sustainable access to improved water supplies. Also, about one-fourth of the urban population of these developing countries comprising 262 million people are living without access to basic sanitation.

Recent economic development and population growth has been increasing the water stress in Asia, and South Asia in particular. At the same time, the region's water quality is also generally deteriorating fast because wastewater discharges from domestic, industrial and agricultural runoff is increasing in volume. To make the situation even worse, water losses in irrigated systems (which uses over 70 per cent of the total water consumed) are generally high (e.g. 30-40%) and urban water losses are 20-50 per cent. Agriculture is recognized as one of the biggest users of water throughout the region and the linkages between rural and urban water supply and use require more systematic analysis. The challenge, therefore, is to reduce the amount of water used by increasing water efficiency, productivity, demand-side management and full-cost pricing with well-targeted subsidy policy.

Strategies to improve the management of water resources and consumptive use of water basin and aquifer systems for the benefit of all sectors, including local communities, developers and the environment are generally lacking. Also lacking are strategies to utilize appropriate methods and technologies for water supply and sanitation systems and approaches for rural and peri-urban communities. Some countries see economic instruments as one possible means to balance water needs and supply between rural and urban areas.

New water supply networks and supply systems are badly in need of repair in order to ensure more rational use of water resources, but financing is difficult to secure. There is a lack of cost-recovery mechanisms to support the chain of water supply and more economic instruments could be used to address this issue, as well as to promote more participation of businesses and private donors.

Local level institutions concerned with water management, including institutions for policy and planning and river basin organizations are often lacking sufficient capacity, human resources and technology and need to be strengthened in many countries. In particular, many countries lack sufficient capacity to conduct water resources assessment and monitoring as a key component of sustainable water resources management. Some monitoring stations exist but require modernization, upgrading and extension.

Strengthening coordination within the institutional framework is another major challenge in meeting the MDG goals and targets in water and sanitation. Water is a diversified sector both on the supply and the demand sides. In addition to the need for strengthening domestic coordination, regional cooperation and partnerships among water ministries and the few functioning institutions of the countries sharing water resources, there needs to be a significant improvement in water resources management. Also required is better co-operation with existing regional agencies and aid agencies in the development of water sector related programmes and technologies and capacity-building.

Resource mobilization for financing water and sanitation policies and programmes in Asia is one of the greatest challenges in the coming decade. Currently, the estimates of investments in water supply and sanitation in Asia from both domestic and external sources are not available. What is known, however, is that the Official Development Assistance (ODA) to countries of the region has declined, and that there is a huge gap between the estimates of the financing needed in achieving the water and sanitation targets and the available financing on water and sanitation from the multilateral financing institutions, the UN system, bilateral funding agencies, private sector and the governments. There is also the issue of how to make funds available to small and medium scale projects through intermediary financing organizations since transaction costs of such projects, if directly financed by WB/ADB, would be high. As regards private sector financing, the problem is that such projects especially in poor countries are not generally attractive, and yet these are the countries where assistance is needed most. Nevertheless, while international capital market is unlikely to bridge the financing gap for water and sanitation in Asia, the potential contribution of the domestic private sector could be very significant.

A global snapshot of water and sanitation coverage in various regions reveals that Asia has the lowest sanitation coverage in the world, and as many as around 70 per cent of the rural population and over 25 per cent of the urban population are without access to basic sanitation. This is a challenge which must be met during the next decade. Innovative, appropriate and cost-effective technologies must be developed and transferred to the countries, especially those lagging behind.

The major challenges for most of the small island developing states and developed countries in the Pacific sub-region are the sustained provision of adequate supplies of non-polluted

freshwater as well as wastewater disposal. This requires improved resources management, efficient service providers and better local and national water governance. The consequences of not having access to safe water include an increase in waterborne diseases and general hardship, especially for women and children.

For the Pacific SIDS, challenges and constraints of sustainable water resources management could be categorized into the following three broad thematic areas:

- 1) Fragile water resources due to their small size, lack of natural storage and competing land use, vulnerability to natural and anthropogenic hazards, including drought, cyclones and urban pollution - this requires detailed water resources monitoring and management and improved collaboration with meteorological forecasting services;
- 2) Sustaining water and wastewater provision due to the lack of resources including human and financial resources, which restrict the availability of experienced staff and investment, and effectiveness of cost-recovery. Future action is required in human resources development, water demand management and improved cost-recovery; and
- 3) Highly complex water governance due to the specific socio-political and cultural structures relating to traditional community, tribal and inter-island practices, rights and interests, which are all interwoven with colonial and 'modern' practices and instruments. These require programmes such as on awareness, advocacy and education, as well as strong political will, at community, institution and government levels, to create a framework for integrated water resources management.

3. Lessons learned

Existing laws and legal frameworks frequently do not reflect current water use issues in many countries and require revision, including legislative action to ensure better water management and its integrated use at various levels.

Water pricing, cost recovery and other economic instruments are either being used or under consideration by several countries in the region to induce more rational allocation and use of water. The experience of these countries and the lessons learned could be usefully shared with other countries in the region.

Water and sanitation has a multi-sectoral institutional framework at national levels. The ministries and agencies dealing with the sector include: water resources, health, agriculture, industry, fisheries, shipping and inland water transport and energy. In developing a national policy and strategy on water and sanitation, coordination among several ministries and agencies needs to be strengthened.

NGOs, women, indigenous peoples, the private sector and other major groups are playing an increasingly active role in the implementation of processes related to integrated water resources management and sanitation at the national and local levels and provide a solid basis for further

water resources developments. Community level participation and devolution of management are recognized as playing a critical role in the water and sanitation sector. Stronger public-private-NGO partnership is gaining momentum, following the WSSD, in view of its potential for success. Such projects in the water and sanitation sectors have promoted participation and a sense of ownership among stakeholders. Such partnerships play a role in the implementation of water and sanitation infrastructures under joint efforts of stakeholders bringing together different types of ideas, skills and funding sources. Creation of water user associations has proven to be one means of improving public awareness.

More information and data are required to ensure informed policy development in the integrated management of water resources and waste water management. Moreover, information and data on the impact of water related disasters on GDP and the inclusion of disaster management and preparedness elements in national plans and strategies would be helpful to many countries in the preparation of integrated water resources management plans.

A critical area requiring on-going attention is the priority that governments of the Pacific sub-region, particularly the island countries give to the provision and management of water resources. Implementing the Regional Action Plan is considered important in this regard. The WSSD process and now the Barbados + 10 review process, have been important in helping to focus greater political attention on water resource and management issues.

B. HUMAN SETTLEMENTS

1. Achievements

A variety of measures have been taken in the Asian and Pacific region to tackle the slum issues including slum upgrading, development of enabling strategies for self improvements such as low interest loans, improvement of existing towns, promotion of new and satellite towns, relocations, rural urban migration, public land use management, private partnerships for provision of basic services, low cost housing developments, legalizing tenure and provision of low cost or free land. Some of these are curative measures while others are preventive.

In recent years integrated policies dealing with slums are becoming part of a more comprehensive urban development intervention model, addressing issues related to both government and market failure. Thus a number of countries in the region have developed greater integration in their development and environmental policy making and are able to consider the issues of slums along with the wider issues of land use, land management, infrastructure investment, financing mechanism and governance in an integrated manner.

2. Challenges

In Asia, over 1 billion people or 32.8 per cent of the total population live in urban areas. There are some recent (2003) statistics on slum population of Asia. The proportion of slum and squatter settlements dwellers in Asia and the Pacific is over 50 per cent of the global total. According to UN/Habitat, some 498 million people living in urban Asia (which represents 45 per cent of

Asia's total urban population) are slum dwellers. It is not only the percentage and absolute number of slum dwellers in Asia which concerns city planners; it is also the security and risk factors which are involved. Slum dwellers rarely have any security of tenure as a result of which the quality of living is not improved even if they can afford it.

Other problems of the Asian slum dwellers include: their inability to grow assets under abject poverty, crime and hardships (such as collecting water, removing solid wastes, bringing children to school on foot), which takes away much of poor peoples' time making assets generation difficult, if not impossible. Unless, therefore, they are able to get out of the poverty trap it will be difficult for these 498 million slum dwellers to make significant improvement in their living conditions.

The rapid urban growth in the region has overwhelmed the local and national governments capacities for urban management in the region. Increasing levels of national per capita income have not decreased the number of slum dwellers. In many instances, slums have increased and services for the urban poor have decreased despite rising income levels. The rapid urbanization phenomenon calls for promoting decentralization and a higher level of municipal management. The challenge for the region is to train municipal managers to be familiar with the advanced information and communication technology, geographic information systems, urban finance, water and energy systems, waste management, environmental economics, alternative transportation systems and skills in conflict resolution.

There are three critical issues that need to be tackled in confronting the urban shelter problem, particularly in controlling the future development of slums and squatters. These are firstly the availability of low-cost urban land which could be utilized for housing the poor; secondly the provision of access to affordable financing to help the poor to improve their housing; and thirdly the organization and participation of the community in planning and implementing low-income housing.

Human settlements development approach has not fully taken into account the close rural-urban relationships and the conditions of life in rural communities. Improving the conditions in urban slums may only aggravate the rate of in-migration from the rural areas unless active steps are taken at the same time to address employment, social conditions, land tenure and living standards in the rural areas. Governments have often not considered the balance of resource allocations between rural and urban areas as part of a balanced and integrated approach to human settlements development and improvement.

The growing problem of urban slums in the mega-cities will continue unless governments develop strategies and identify policies that can help build satellite cities and new towns to serve as counter attractants and counter-magnets of the central city.

For the Pacific sub-region, its pattern of human settlements is also rapidly changing with increasing numbers of people moving to live in towns and cities. Of increasing concern to this sub-region is that the populations of the major urban areas in most countries are growing faster than national populations. The effects of such a rapid urbanization are many but an important effect is that the availability of basic services such as water supply, sanitation, waste disposal,

housing, schools, health and recreation facilities. This is, in particular, worsening the situation for many poor residents and as such informal and squatter settlements are growing as more migrants come to seek a living in the towns.

In the Pacific sub-region countries do not have specific or integrating legislation that provides for national oversight or direction on matters of urban infrastructure, housing, policy and/or poverty, and national policy on these matters is indicative only.

Government institutions at the national and local levels as well as the traditional leadership structures have been unable to efficiently manage the transition from village to cities.

3 Lessons Learnt

There is a need for a strong leadership at the national and local government levels and a positive approach to urbanization in national development planning. Governments will need to consider urbanization as a crucial part of national economic development and sustainable development in general and adopt a positive and pro-active approach to urban growth. At the same time, urban governance needs to be strengthened through effective urban planning to coordinate and integrate development proposals, setting priorities, developing plans, mobilizing funding, facilitating credit and enlisting public support has proven essential for success. Physical planning needs to be integrated or at least coordinated with economic and social development planning. It has been suggested that this could best be done through the development of national sustainable development strategies integrating the three pillars of economic, social and environment, including physical planning.

Actively involving rural and urban communities, including indigenous people, in solving their own problems and promoting partnerships arrangements was proven to be critical to effectively address human settlement needs. Strong community based organizations have proven valuable in channeling community efforts.

Partnership building has increasingly been considered an effective means for consolidating efforts and mobilizing scarce resources to address critical issues related to human settlements in general and slums in particular. The modalities for partnerships have varied depending largely on the willingness of stakeholders to engage in such endeavors. However, regardless of the modalities, partnership initiatives are now acknowledged to provide better and more effective delivery of services in the wake of limited governmental resources. Many governments in the region have moved away from the role of housing developers towards that of facilitators, for example by adopting enabling policies, shifting the emphasis of housing provision from the public to private sector. Several models exist in the region, which have been successful in addressing slum issues particularly towards the provision of basic services.

Benefits of partnerships between local governments and community-based organizations was also found useful, especially those which encouraged best practices towards urban management as well as those for job creation, solid waste management and awareness raising. NGOs have provided technical advice and helped coordinate numerous small-scale projects in low-income

communities. The NGOs have also proven effective in awareness raising especially in slum improvements.

There is insufficient information flow on current progress being made in the region and there are limited opportunities to learn from decade-long valuable experiences in the planning, development and management of urban settlements in Asian and the Pacific region as a whole. There is thus a need for regional and sub-regional cooperation to improve the response to urban growth, particularly infrastructure, housing, land supply and urban management. This cooperation could focus on the adoption of sound urban governance practices best suited to the socio-economic and cultural systems common in a particular sub-region.

II. PROCEEDINGS

A. Opening Session

The Regional Implementation Meeting was held at the United Nations Conference Centre, Bangkok, on 27 and 28 October 2003. The meeting was jointly organized by ESCAP and United Nations Department of Economic and Social Affairs (UNDESA), in collaboration with UNDP.

At the opening ceremony, statements were made by Ms. Keiko Okaido, Deputy Executive Secretary of the Economic and Social Commission for Asia and the Pacific (ESCAP); Ms. Jo-Anne DiSano, Director, Division for Sustainable Development of UNDESA; Mr. Robert England, Resident Coordinator of UNDP; Mr. Surachai Sasisuwan, Director General of the Water Resources Department, Ministry of Natural Resources and Environment, Royal Thai Government. A video message for the meeting was also delivered by the CSD-12 Chair, H.E. Børge Brende, Minister of the Environment, Norway.

In her welcoming statement, Ms. Keiko Okaido, Deputy, ESCAP, stated that major international events, in particular the Rio Summit, the Millennium Summit, the World Summit on Sustainable Development (WSSD), and most recently, the Third World Water Forum, have brought to global attention the numerous challenges faced in better managing our precious water resources, as well as the attempts made to reach consensus across the international community of the possible solutions to these challenges in the context of sustainable development. She explained that this meeting was arranged to review the regional state of progress in the implementation of Agenda 21, and the Johannesburg Plan of Implementation (JPOI) agreed at WSSD, in the areas of water, sanitation and human settlements, that were selected as the themes for the Twelfth Session of the Commission on Sustainable Development (CSD-12). She said that the meeting would seek to identify major achievements, obstacles and constraints, new challenges and opportunities in implementing the JPOI, as well as sharing best practices and the lessons learned, and exchanging experiences in developing new partnerships that address these challenges. She explained that the report from this meeting would contribute to the Regional Forum to be held at CSD-12, as well as provide the regional input for the Secretary General's Report. Ms. Okaido stated that more than two thirds of the 1.1 billion people who do not have access to safe drinking water, and 80 per cent of the 2.5 billion who lack access to adequate sanitation live in Asia. It is estimated that

550 million people in developing countries of Asia are living in urban slums, or 45 per cent of the urban population. She also stated that requirements for financing for water and sanitation improvements to meet the ambitious targets set in the JPOI would cost an additional US \$8 billion to US \$13 billion each year, that will require new and innovative methods of financing and the strengthening of the participatory process and partnerships involving all stakeholders. She wished the participants fruitful discussions and success in sending a strong and meaningful message from the meeting to CSD-12.

Ms. JoAnne DiSano, UNDESA, in her introductory statement, said that the success of WSSD was largely due to the intensive preparations made at national, sub-regional and regional levels, including the ten year assessments, which included the sub-regional and regional PrepComs held to formulate regional positions. She thanked ESCAP, UNDP, UNEP-ROAP, ADB and other organizations for their key roles in these processes. She said that the JPOI called for the active involvement of the UN Regional Commissions and other organizations in the implementation of the commitments and targets agreed to in the JPOI, the Programme for the Further Implementation of Agenda 21 and Agenda 21, and noted that CSD-11 had invited the Regional Commissions to organize regional implementation meetings prior to the CSD two-year Review Sessions and Policy Sessions in alternating years, which started in 2004. She explained that the outcome of this meeting would be a Chair's Summary of discussions, including highlights of multistakeholder discussions and break-out sessions on water, sanitation and human settlements, and although not negotiated, the Summary to be submitted to CSD-12 in April 2004, would reflect the varied experiences and views shared by participants. Ms. DiSano drew attention to the fact that the diversity of the Asia and Pacific region poses many challenges for pursuing sustainable development, particularly in South Asia, where more than one third of the people lack access to improved sanitation, one third live in poverty, one quarter is malnourished and nearly one in ten children die before the age of five. She noted that the rapid rise in urban populations in the region had worsened living conditions, and that 14 of the world's 22 megacities of more than 10 million are in Asia. She said that she looked forward to working with the Asia and Pacific region to strengthen its links to the global forum of CSD, and wished the participants success in their efforts at the meeting.

In his introductory statement, Mr. Robert England, UNDP said that he welcomed the collaboration with ESCAP and UNDESA in the organization of this important regional preparatory process for CSD-12. He noted the convening power of ESCAP to hold regional fora to identify challenges and opportunities in water resources management and human settlements, which can subsequently be implemented at national level by UNDP and other organizations' country programmes. He outlined some of UNDP's initiatives in water resources management in working towards achieving the Millennium Development Goals, highlighting its work in water and governance; water, education and capacity-building; climate change and water; water and gender; transboundary water; and public-private partnerships for the urban environment. He also noted that in policy development and implementation in the water and sanitation sector, UNDP works closely with partnerships with the Water and Sanitation Programme of the World Bank, the Water Supply and Collaborative Council and the International Water and Sanitation Centre.

Mr. Surachai Sasisuwan, Royal Thai Government, in his opening statement, said that Thailand has participated in and supported many international water events and is committed to

strengthening ongoing actions to implement global agreements related to water resources. He stated that Thailand's greatest challenge in meeting basic needs in the water sector is to increase village water supplies from 76 per cent to 100 per cent by 2009. He noted that Thailand is working towards developing integrated plans for water resources management in all river basins through a participatory approach, and improving risk management, covering floods, drought and severe pollution, following the establishment of a Centre of Water Crisis Prevention last year. He emphasized the importance of monitoring water resources and the collaboration with ESCAP in developing indicators for the Chao Phraya River Basin for the First World Water Development Report, which will provide information for policy guidance in this most strategically-important river basin in Thailand and be further developed for other river basins across the country. He wished the meeting success in reviewing the state of progress in the implementation of Agenda 21 and the JPOI and looked forward to seeing the results of the regional input to the Secretary General's report.

The message from H.E. Børge Brende, Minister of the Environment, Norway and Chair for CSD-12 was presented as a video statement. He opened by saying that the international community has set itself ambitious goals for sustainable development, and that there was no time to lose in transforming the global commitments into action at the local and regional levels. He said that a step-by-step approach must be taken to achieving the goals for water and sanitation, and although a daunting task, we owe it to ourselves and to future generations to strive towards these key goals of delivering safe drinking to another 270,000 people every day for the next 12 years and basic sanitation to another 370,000 people over the same period. He note that much of what was achieved in the 1980s was lost due to mismanagement, and that we have to make sure that lessons are learned, and comprehensive plans for integrated water resources management are drawn up in with participation, transparency and ecosystems-oriented approach. He said that to ensure successful implementation of policy decisions taken during the Review Session at CSD-12 next year, we will have to ensure that ministers who are responsible for water, sanitation and housing participate and join forces with implementing agencies and financial institutions at the international and regional levels, and to mobilize the political will to provide additional resources, we must encourage alliances and partnerships to drive the process forward. He stated that to succeed, we need a strong and dynamic UN system to collaborate with national and international partners for sustainable development. As Chair of CSD, he said that he would do his best to ensure that last year's World Summit in Johannesburg will be seen as the beginning of the process, rather than the end of one, to benefit the daily lives of people all over the world.

B. Election of officers

The following participants were nominated to act as the bureau for the meeting:

Vice Chair, Mr. Toru Shimizu, First Secretary, Permanent Mission of Japan to the United Nations, New York; Vice Chair, Mr. Aybi Siddiqi, Secretary, Local Government Division, Ministry of LGRD & Cooperative, Dhaka, Bangladesh; Rapporteur, Mr. Ardi Sarwoko, Director of Water Resources Management, Public Works Department, Jakarta, Indonesia.

III. SYNOPSIS OF SUB-REGIONAL ASSESSMENTS

A. Regional overview of state of implementation on water and sanitation

Presentations were given by three panelists on the state on implementation on water and sanitation for Asia (North-east, South and South-east); Central Asia; and the Pacific sub-regions.

An introductory overview was given by the ESCAP secretariat of the global process of international conferences related to water and sanitation from Rio leading to CSD-12. It was reported that of the total population of the twenty-one developing countries in these three sub-regions, approximately 1.1 billion (or 32 per cent) live in urban areas and 2.2 billion (67.2 per cent) in rural areas. As of 2000, some 785 million people had no access to sustainable and safe water and more than 262 million urban population had no access to improved sanitation. Several examples of successful initiatives in water and sanitation were cited, with some lessons learned. Replication of these initiatives in large-scale seems to be one major way forward in achieving the targets for water and sanitation set in the Millennium Development Goals (MDGs). Other major achievements and challenges including technical, financial and institutional were discussed. New and innovative technologies (such as ecological sanitation, rainwater harvesting), community participation and financing mechanisms (such as Small-scale Sustainable Infrastructure Fund) were noted as other means for achieving the MDGs.

For Asia, it was noted that financing is a critical factor. Most governments run under budget deficit and priority investment sectors are energy and transport. Official Development Assistance (ODA) has decreased from \$12.9 billion in 1990 to \$11.8 billion in 2000. It was stated that Financing water and sanitation improvements in Asia will cost between US \$8 billion (under business-as usual scenario) to about US \$13 billion (under accelerated progress scenario). Therefore, unless new and innovative methods of financing are found, Asia's hope for making water and sanitation accessible to millions of poor people will be unlikely to be achieved. New and innovative mechanisms for financing exist, which should be further nurtured. Meanwhile domestic resource allocation and ODA flows needs to be increased.

Under the present scenario, with government commitments and the assistance of private sector and NGO participation, eleven out of twenty one countries are expected to meet the target for water supply by 2015. However, in the area of improved sanitation only five countries are expected to meet the target.

It was stated that the Central Asian countries are committed to meet the objectives indicated in Agenda 21 and the targets set at WSSSD, although the complexity and diversity of the process make it difficult to assess the progress achieved. It was noted that following WSSD, the governments of Central Asia in cooperation with international organizations and NGOs have developed Central Asian targets and indicators for water, energy, environment and governance, and the States are currently preparing specific and concrete projects to implement their own Central Asia Initiative to meet the declared goals. An overview of the status of water resources in Central Asia was presented, covering water for food; environment; industry and mining; industrial crops; security; regional cooperation multilateral agreements on transboundary issues; water quality; irrigation and the impact of the decline in level of the Aral Sea. Some examples were given from Kazakstan, where 25 per cent of the population (about 4 million people) are not supplied with tap

water. It was reported that it was anticipated that public health in Central Asia will significantly improve by 2025, with virtually all urban and most rural populations being supplied with safe drinking water, with 250 litres being supplied to each person in the cities and 100 litres in rural areas.

The presentation from the Pacific region emphasized that the ability of the island countries to effectively manage their water resources is unique to Small Island Developing States (SIDS), that are constrained by their small size, fragility, natural vulnerability and limited human and financial resources base. It was also noted that water governance is highly complex due to the specific socio-political and cultural structures relating to traditional communities, tribal and inter-island practices, rights and interests, interwoven with colonial and modern practices and instruments. Six thematic categories were identified for the Pacific island countries: water resources management; island vulnerability; awareness; technologies; institutions and financing. It was stated that highest priority was given to the implementation of the Pacific Regional Action Plan on Sustainable Water Management, and that resources are required for implementing strategic partnerships.

The panel presentations were followed by a multi-stakeholder discussion on achievements and challenges in implementing the commitments and targets in water and sanitation. Many country representatives made statements related to their achievements and challenges, together with interventions from representative of major groups.

A presentation was given on the Third World Water Forum Portfolio of Actions by two representatives from the Water Resources Planning Division, ministry of Land, Infrastructure and Transportation. This was followed by further presentations from countries, organizations and stakeholders.

During the afternoon session, three break-out sessions were held for groups from Asia (North-east, South and South-east); the Pacific and Central Asia. Issues discussed included: integrated water resources management; disaster management; water utilization and access to safe drinking water; affordability; gender aspects; water use efficiency; participation, policy frameworks; financing for water infrastructure; innovative technologies; water and health; mobilization of local resources. The outcomes of the break-out sessions were reported back in plenary.

B. Regional overview of state of implementation on human settlements

An overview was given by ESCAP secretariat on the state of implementation on human settlements in Asia and the Pacific. Two major aspects of the shelter crisis in cities were identified: the housing back-log and infrastructure shortages, which have become chronic in the wake of the burgeoning urban population in recent years. It was reported that the number of people living in urban slums in the ESCAP region is as high as 498 million, about half of the total urban population. Three critical issues to be tackled in confronting the urban shelter problem were noted as: availability of low-cost urban land for housing the poor; provision of access to affordable financing to help the poor improve their housing; organization and participation of the community in planning and implementing low-income housing. The most critical limiting factor in the acquisition of shelter was identified as non-affordability or poverty. Relocation or the resettlement approach has been associated with all types of slums, with the alternative of upgrading. It was noted that enabling policies to support individual household in providing their own shelter was practiced in many countries, as were privatization of house-finance institutions and promotion of public-private partnerships and the greater involvement of NGOs and communities. It was estimated that the number of mega-cities would grow from 12 at present to 18 by 2015. The need for policy shifts to

increase public expenditure in social infrastructure, good governance and awareness to bring about behavioural changes to replicate best practices were identified as the biggest challenges for urban managers to reduce slums. This overview was followed by short presentations on Central Asia and the Pacific sub-regions.

This presentation was followed by sub-regional overview and multi-stakeholder discussion.

Partnerships for sustainable development

A presentation on Background Information on Partnerships for Sustainable Development by UNDESA. In the introduction, it was noted that voluntary partnerships aimed at implementing sustainable development were important complementary outcomes of WSSD; in the JPOI governments designated CSD as a focal point for the discussion on partnerships, including sharing lessons learned, progress made and best practices. It was stated that these partnerships should add concrete value to the implementation of the international commitments; should bear in mind the economic, social and environmental dimensions of sustainable development in their design and implementation; should be based on predictable and sustained resources for their implementation, including mobilization of new resources and capacity building; should involve international institutions and United Nations funds, programmes and agencies and conform to the inter-governmentally agreed mandates and not lead to the diversion to partnerships of resources otherwise allocated for their mandated programmes. It was noted that to date, about 230 partnerships and 35 partnership initiatives have been posted on the DSD website. The presentation was followed by an exchange of experiences in implementing partnerships in the region in relation to the CSD-12 thematic areas.

Closing session

The Chair's summary was presented, which identified key issues in water, sanitation and human settlements that were discussed during the meeting.

IV. LIST OF PARTICIPANTS

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Annex: Excerpts from Country Papers Submitted on National Implementation in the Areas of Water and Sanitation (Asia and the Pacific Region)

Australia

Major Achievements

The Council of Australian Governments (Coag) established an integrated water reform framework, which encompasses urban as well as rural water and waste water industries, and includes economics, social and environmental objectives. At its August 2003 meeting, Coag agreed to the Australian Government's proposal for a national water initiative to promote water reforms beyond the 1994 framework. In addition to the Coag reforms, under its Natural Heritage Trust and National Action Plan for Salinity and Water Quality the Australian Government is implementing a regional approach natural resources management. It has also implemented a joint Australian-New Zealand National Water Quality Management Strategy.

Challenges

In order to facilitate more efficient water use, secure water property rights and access entitlements need to be clearly defined. Further removal of institutional impediments is required for an efficient water market and water trading to occur. The rights of the environment to water also need to be established. The Australian Government also recognised the need to develop policies and actions further to improve urban water use, including tools to monitor and report on water use efficiency and water recycling. Other major challenges for water management in Australia include the conservation of in-stream and riparian biodiversity, the provision of water for ecosystems, managing the conjunctive use of surface and groundwater resources, water pricing, and monitoring river health.

Azerbaijan

Challenges

Azerbaijan suffers from insufficient water resources as well as inefficient use of the resources. Water treatment facilities are either non-existent or needs to be repaired. Furthermore, the government has difficulties in assessing information on pollution of the Kura River since the region was occupied by Armenia. The pollution in Caspian Sea is hard to be dealt with because of its multi-national nature. It is also pointed out that an international cooperation is necessary to avoid replication in implementation of projects in the Caucasus region.

Bangladesh

Major Achievement

Effective partnership has been formed between government and donors, and among central and local governments. The government of Bangladesh conducted a baseline survey to achieve the national target of 100% sanitation coverage by 2010. National campaign on sanitation was launched on October 2003.

Challenges

According to the survey, those who need financial help for basic sanitation needs are 10,540,609 families. The government plans to cover 8,895,956 families, which will cost US\$85.89 million in seven years up to 2010.

Bhutan

Major Achievements

The government of Bhutan established the Bhutan Water Partnership (BWP) in 2001 to provide an integrated water resources management. New water policies and strategies were formulated. Also the

first draft of Water Act has been prepared. New Water Resource Management Plan is currently under preparation. The national average water supply coverage in the recent decade had expanded from 30% to 78% in rural areas and from 62% to 81% in urban areas. By 2000, the water supply and sanitation coverage in schools reached 60% and 54% respectively

Challenges

For further success in implementation of the Regional Water Supply Scheme (RWSS), it requires (1) common understanding of its policies and strategies among key stakeholders (2) new policies/strategies which based on demand responsive approach (3) phased decentralization reforms (4) reliable data base system (5) new technology to serve hard-to-reach areas and to exploit alternative sources of water (6) beneficiary commitment to maintaining and sustaining their schemes (7) adequate regulatory framework (8) capacity building to enforce new policies (9) sufficient local revenue to operate the service (10) establishment of proper maintenance system (11) removal of institutional constraints that limit financial autonomy (12) recognition of the difficulties of may poorly located towns in terms of availability of adequate source of water.

China

Major Achievements

China has built a fairly complete system for mitigating water disaster and securing water supply. From 2000 to 2003, the government of China invested about US\$1,030 million into the construction of a large group of works to improve accessibility of drinking water. In the aspect of sanitation, current capacities of wastewater disposal plants across the nation can cover 39.97% of the total discharge.

Challenges

Frequent disasters, such as floods and droughts, exacerbate water supply problem in China. Among 669 Chinese cities, 400 suffer from insufficient water supply with 100 in severe shortage. Shortage of water resources became a heavy constraint on social economic development in China. Furthermore, China faces the problems with poor management mechanism to control water pollution. The pollution of source of water has aggravated the scarcity of water and made adverse impact on public health and safe drinking water. The lack of funding and low capacity of basic infrastructure also makes matters worse, especially for small towns.

Fiji

Major Achievements

Two major dams were constructed in Fiji. The smaller Vanturu Dam provides water to dry western region and the larger Monasavu dam provides hydro-electricity. The proportion of Fiji's population with access to clean piped water is 70% compare to 60 % in mid eighties. The proportion of the population having access to treated sewerage facilities is approximately 15%.

Challenges

Fiji is blessed with abundant water resources. However, extreme weather patterns have had serious socioeconomic and environmental consequences that require prudent water resource management. In addition, soil erosion and land degradation have worsen the country's vulnerability to natural disasters. Growing urban population over the years also puts pressure on supply of water and sewerage services in the area. Some of critical areas that Fiji can improve to achieve sustainable development in water and sanitation are: (1) improvement of the institutional capacity to develop and monitor water supply and sanitation (2) enforcement of legislation (3) improvement of environmental education programmes (4) promotion of community-based environmentalism.

Plans and Actions

The government of Fiji plans to undertake the Suva-Nausori Water and Sewerage Project. The completion of the project in 2007 will provide adequate piped water supply in the region for the next 10 years.

India

Major Achievements

The government of India has made major achievements by extending water supply in almost all the rural areas. The remaining areas will be covered by the end of March 2004. In case of rural sanitation, efforts are being made to achieve 50% coverage by the end of the 10th plan (2007) and for this purpose the Total Sanitation Campaign (TSC) has been launched throughout the country.

Challenges

In rural areas of India, water supply problem exacerbates during the summer, as ground water sources dry up. Its quality problem creates irreparable loss to human health. Excessive withdrawal of ground water is another major concern for the rural water supply sector. Poor maintenance practice in this sector can attribute to lack of public awareness of water and limited involvement of community. In urban areas of India, only about 90% of the urban population has access to safe drinking water in 2001, and about 26% of the households in urban areas do not have any latrines or toilet facilities. Also, poor quality of the service and institutional deficiencies in urban areas are among the major concerns for the government in this sector.

Plans and Actions

In order to finance the construction of infrastructure in the sector, the government suggests extensive private-public partnerships in the field of water supply. The government also plans to provide fiscal incentives, such as permitting the issuance of tax-free municipal bonds, to help mobilization of resources for these sectors. In addition, the Prime Minister of India announced to provide 1 lakh handpumps in water scarcity area, 1 lakh water connections to schools and revival of 1 lakh traditional drinking water sources by March 2005.

Indonesia

Major Achievements

The Ministry of Settlement and Regional Infrastructure organized the Indonesian Portfolio of Water Actions (PWA), which consists of the documents that outline expected outcome and expected goals. Also, the government proposed a debt swap scheme to finance projects for water and sanitation.

Challenges

Despite the abundance of water resources, Indonesia experiences shortages in water supply during dry season and floods events during rainy season due to the variability of its geographical and climatic conditions. In addition, unsafe water is one of the major sources of disease in Indonesia, particularly in remote rural areas. Only 8% of the rural population has access on piped water and the problem of clean water is further exacerbated by lack of public awareness. The main issue of sanitation system is that they are often operated with little regard to safe human disposal. Combined with the lack of adequate sanitation facilities, it causes the problem with fecal contamination in urban water supplies. The financial constraint that faces the government of Indonesia is about US\$573 million annually to build the adequate infrastructures to meet the MDG goals of water and sanitation by 2015.

Iran

Challenges

Agricultural water consumption in Iran cannot be sustained with present situation. Ground water consumption exceeds the safe yield criteria and its water quality has been deteriorated. Most of urban water distribution systems in main cities are old and leakages are relatively significant. Agricultural drainage and urban wastewater accounts for about 30% of water consumption, but are not effectively reused.

Plans and Actions

The government of Iran recently approved the national water resources plan for the next 20 years. According to the plan, at least 2.5% of total water consumption in year 2020 will be accomplished through wastewater reuse. Also, the government will apply appropriate water pricing subsidy policies in order to maintain affordable water prices.

Japan

Major Achievements:

In Japan, a Long-Term Plan for Water Demand and Supply was established in 1978 and a National Comprehensive Water Resources Plan in 1987 (Water Plan 2000). Also, a new National Comprehensive Water Resources Plan (Water Plan 21) was created in 1999, which adopted 2010 and 2015 as target years. For major river systems, Water Resources Development Basic Plans have been developed since 1960's and integrated management and efficient use of water resources are advanced. In March 2003, the Government of Japan hosted a Ministerial Conference in Kyoto on the occasion of the 3rd World Water Forum, and announced the Portfolio of Water Actions (PWAs). The Ministers and Heads of Delegation agreed to establish a website network for its follow-up, and Japan will organize and manage this network, at the initial stage, in cooperation with the relevant international organizations.

Challenges:

Reduction of river flow, negative impacts on ecosystems, flood damages and water shortages are some of the various water-related problems which mainly are taking place in urban areas as a result of human activities. Therefore, consultative meetings among a number of ministries, to adopt a comprehensive approach to a sound hydrological water cycle, are currently being undertaken.

Plans and Actions

The joint efforts involving citizens are being implemented for environmental restoration. At Lake Kasumigaura, the second largest lake in Japan, a joint project called "Asaza Project" is being carried out by citizens groups, residents and administrative agencies. Furthermore, a number of attempts has been made to utilize watersides and rivers in environmental education for children.

Republic of Korea

Major Achievements

The government of Korea introduced integrated watershed management system through the enactment of special laws on the four major rivers in Korea. These laws were developed after 420 meetings over a five-year period since 1998 among the affected residents, local governments and experts. Among others, the laws mandate comprehensive pollution prevention measures, including the designation of riparian buffer zones and total pollution load management. The extensive prior coordination of conflicting stakeholder interests has minimized obstacles to the implementation of these pollution prevention measures.

Challenges

Supplying safe drinking water in rural areas remains as a major challenge in Korea. In 2002, the proportion of rural population receiving waterworks service remained around 31%, whereas in urban areas the figure stood at 97%.

Plans and Actions

The Korean government plans to replace around 42,757km of superannuated water pipes by 2011, which largely account for contamination of drinking water during the final stage of supply to end users.

Laos

Major Achievements

The government of Laos has approved the Water and Water Resources Law (the Water Law). In 2001, the government promulgates its decree for the implementation of the Water Law, which defines the structure of water resources planning and management at national and river basin levels. In 1998, the government approved the Water Sector Strategy and Action Plan (SAP). The Water Resource Coordination Committee (WRCC) was established as a first step toward implementation of the action plan. The Draft Policy on Water and Water Resources (2000) is in the final stage of approval. The policy may serve as a framework policy for further development of detailed policies.

Challenges

One of key challenges facing the water supply sector of Laos is to achieve equity in geographical water supply coverage. Lack of infrastructure combined with high poverty in the remote areas makes it difficult to achieve this goal. Deforestation and land cleaning, which often lead to reduced spring flow, also add to the difficulties facing this sector. Lack of local capacity and financial resources is another challenge for the government to operate and maintain water supply system.

Malaysia

Major Achievements

The national water supply coverage increase from 92% in 2000 to 93% in 2003 (a coverage of 97% in urban areas and 86% in rural areas).

Challenges

The major challenge for Malaysia is the financial constraints to implement water supply and sewage development project to meet the increasing demand. The government also needs to strengthen its institutions to improve enforcement of water supply legislation.

Plans and Actions

In order to improve the provision of water supply, it is planned to minimize the water usage by recycling of water and effluent reuse. The use of water-saving devices in residential and commercial buildings will be promoted. The government also plans to intensify the implementation of the Integrated Water Resources Management System.

Mongolia

Major Achievements

In 1999, Mongolia adopted the National Water Policy Program. This program reflects overall related issues on water management activities including water resource, water quality, water use and protection from deterioration and pollution of the water resources. Within the program, the National Water Committee were established, which is in charge of organization, regulation and monitoring of the

program implementation. Recently, the government established an Agency of Forest, Water and Natural Resources under the Ministry of Nature and Environment to provide a favorable condition to undertake water policies in proper manner.

Challenges

Mongolia is very sensitive to climate changes since about 84% of total water resources are in lake-storage. High evaporation rates and low precipitation can easily affect this sensitivity. Recent rapid urbanization could also cause water shortage in some cities. Furthermore, the level of water pollution has increase significantly compare to the previous years.

Plans and Actions

The government of Mongolia ratified a National Water Program until 2010 that specifies the policies and activities on water by the states. The Action plan of the program reflected the following problems related to water resource management: (1) Organizing step by step implementation of the National Water Program (2) Introducing new water saving facilities to reduce wasteful consumption (3) Extending surface and ground water monitoring network (4) Introducing water softening and hardness reducing technology to improve water quality.

Myanmar

Major Achievements

Rural water supply activities were started in 1952 to provide safe water and implement sanitation works for the rural population. In 1995, the Department of Health launched the “Sanitation for all” programme. At present, several water supply and sanitation projects are being implemented with the assistance of international organizations.

Challenges

Universal access to safe drinking water is an urgent challenge for the government of Myanmar. Especially in the rural areas, drinking water coverage is only 50% compare to 60% nationally. Considering the fact that Myanmar is an agricultural country with 70% of its population distributed in the rural areas, adequate water supply for dirking and irrigation in these areas are major concern for the government. In order to meet the target of 100% coverage of drinking water and excreta disposal facilities by 2005, the government of Myanmar needs to concentrate on, among other things, effective management, capacity building via private sector participation and promoting public awareness.

Nepal

Major Achievements

The Water Resources Act was established in 1992 to provide supportive legislation for rational utilization, conservation, management and development of water resources. In 1998, the National Water Supply Policy was enacted to provide and ensure safe, convenient and adequate water supply with sanitation as its integral component with specific focus on the disadvantaged groups.

Challenges

The government of Nepal needs to refresh the political commitment to prepare programs of action in support of reaching the unserved communities. Further capacity building is required for expanding the coverage. Appropriate funding of the sector programs is another challenge for the government of Nepal. The government also recognized the importance of integration of environmental concern and water resource management objectives together to meet the needs of deprived communities.

Maldives

Major Achievements

The government of Maldives has been the key developer of infrastructure, which includes access to safe water, adequate sanitation, and effective waste disposal facilities. These are among the target of the Health Master Plan (1996-2005) and the National Development Plans (Currently, the 6th National Development Plan, 2001-2005).

Challenges

The Maldives' primary difficulties come from its geographical situation, small island states with the highly fragmented population distribution. Groundwater is the primary source of water, but high groundwater level makes the groundwater resources susceptible to contamination from varieties of human activities. According to water quality testing conducted by the Asian Development Bank in 2001, serious contamination of the groundwater is already occurred in the islands. Due to these limitations, the government is required to over-equip itself to be able to provide level of services to all the inhabited. The government of Maldives also recognized the needs to promote education programs and improve the general level of understanding on health and sanitation issues.

Plans and Actions

The Regional Development Project – Phase 1 is currently being implemented. With this project, the government targeted to increase coverage of existence of a rainwater storage tank in every household from 30% to 65%.

Pakistan

Major Achievements

Ministry of Environment performed a preparatory research for the water-sanitation project to be commenced in 2004. The research assessed the existing water/sanitation facilities, financial affordability of the schemes, needs of consultant services, areas for institutional strengthening and the overall cost of the project.

Challenges

In order to fund the project that is estimated to cost US\$862 million, the government of Pakistan needs to mobilize both internal and external resources.

Plans and Actions

The government of Pakistan plans to provide additional 55 million persons (27 million in urban areas and 18 million in rural areas) to be served with drinking water supply increasing national coverage from 63% to 84%. Also sanitation facilities would be extended from 39% to 63% benefiting additional 54 million persons (28 million in urban areas and 26 million in rural areas).

Papua New Guinea

Challenges

Although Papua New Guinea (PNG) is blessed with abundant water resources, frequent natural disasters (such as cyclones and volcanic eruptions) and changes in climate (e.g. El Nino phenomenon) had severe adverse effects on water and sanitation. Less priority in funding is another challenge to PNC's water resource management. By the same token, the sanitation part is of every development has had very little support from the government.

Plans and Actions

A draft of the National Action Plan is prepared (soon to be accepted) to address issues in water resources management, climate vulnerability, sanitation and health, potable water supply and water resource assessment in the Papua New Guinea.

Philippines

Challenges

While the national average for access to safe drinking water is approaching MDG norms, there are wide geographical disparities. For example, only about 31% of all households in a region in the southern part of the country has access to safe drinking water. In terms of the quality of water, it was discovered that 36% of the water used by slum dwellers was contaminated. These challenges can be explained by low private investment in this sector. In terms of sanitation, the major obstacle in increasing access to proper sanitation is the high cost involved. Except for few Metro areas, they do not have access to Official Development Assistance. And, there is a general reluctance from local authorities to bear the cost of these facilities.

Plans and Actions

In response to these challenges, the government will continue to assist the Local Government Units (LGU) in providing basic sanitation services and in advocating for investments in such services. It will continue to its efforts in (1) strengthening public health programs (2) institutionalizing water quality management systems for LGUs (3) developing the capacity at the national, regional and level (4) developing the skills and the qualification of personnel at the local level on environmental health.

Uzbekistan

Major Achievements

The government of Uzbekistan has constructed 20,400 km of water supply network in rural areas. Compare to the Soviet period, the total length of network has increase by 2.6 times, which resulted in increase in potable water supply to rural population to 77.9% in 2003 compare to 56% in 1992.

Challenges

Social development of rural area is a core problem for Uzbekistan. More than 1183 settlements (about 900 of them are located in desert and semi desert area) experience lack of water and energy supply. Only 4.5% of rural population has been provided with sewerage service system compare to 64% of urban population.

Vietnam

Challenges

Vietnamese water resources are plentiful, but unevenly distributed. In some areas, including saline and mountain areas, there are shortage of water supply. Recent irregular climate changes also worsen the water supply problem in these areas. In rural areas, public understanding about hygiene and health is low in general. Bad practice of hygiene often results in common diseases in rural areas. Heavily populated fishing villages and pollution caused by livestock and pesticides are also a major problem.

Plans and Actions

The National Rural Water Supply and Sanitation Strategy (RWSS) will be implemented within the framework of the general policies of the government. The main government policies that affect RWSS are; (1) rural living condition will be improved (most people will have access to the clean water; there should be improved rural environmental sanitation) (2) the government will assist to build piped water

system in rural areas (3) rural households and communities shall take the main responsibility for rural infrastructure development (4) implementation of RWSS will be decentralized (5) RWSS will be implemented in accordance with the Dublin Principles (e.g. treating water as an economic and social good, having decision making at the lowest appropriate level, and emphasizing the participation of women).