



**3rd World Water Forum-
Water and Poverty Initiative**

**REPORT ON THE ASIA-PACIFIC
REGIONAL CONSULTATION WORKSHOP
ON WATER AND POVERTY**

***22-26 September 2002
Dhaka, Bangladesh***

**REPORT ON THE ASIA-PACIFIC REGIONAL CONSULTATION WORKSHOP
ON WATER AND POVERTY
HELD IN DHAKA, BANGLADESH FROM 22-26 SEPTEMBER 2002
IN PREPARATION FOR THE
3RD WORLD WATER FORUM IN KYOTO MARCH 2003**

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Summary of Workshop Outcomes

The Workshop participants were divided into seven working groups on (i) pro-poor water governance, (ii) improved access to quality water services - domestic supply, (iii) improved access to quality water services - food security, (iv) pro-poor economic growth and livelihood improvement, (v) community capacity building and empowerment, (vi) disaster prevention and mitigation, and (vii) management of the environment. Each group has about 30 participants and presented their respective outputs. The outputs from the seven working groups were synthesized into the generic outcomes on the discussions on the relationship between poverty and water security, as follows:

- The focus of poverty reduction as a guiding principle for decision-making on water resources and service development was agreed, as was the need to more clearly articulate the potential contribution of water to poverty reduction.
- Maximizing the potential contribution of water to poverty reduction means that water managers need to move 'out of the box' and become more involved in mainstream poverty reduction processes such as the PRSPs and strategies to realize the Millennium Development Goals.
- There are many successful experiences across the Asia-Pacific region that are already improving the lives of poor people and have the potential to be scaled up to produce more widespread and systematic impacts.
- There have been lively debates among water professionals for many years and there is a broad consensus of basic principles such as the need for community participation, the importance of improving operational efficiency of water services, the need to improve governance conditions and the need for integrated water resources management. There is a need for more effective strategies and actions to put these principles into practice.
- There is an urgency in moving from debate to action: recent years have seen very successful efforts to raise the profile of water in discussions on sustainable development and poverty reduction. These achievements need to be followed by actions to show that the potential of water can become a reality.
- These actions need to involve all levels, from individuals and communities to national governments and regional cooperation. They should also include all stakeholders: governments, local communities, civil society, the private sector and the international community. The principle of subsidiarity should be applied in defining what actions are needed at which level.
- A key challenge is to create mechanisms for the more effective links between these different levels and stakeholders. This will involve actions in several different areas: better information and communications, improving governance conditions, institutional reform and capacity-building, advocacy and generating political will, investments and technology dissemination and others.
- Specific recommendations on actions in the seven different areas that constituted the break-out groups in the Workshop were identified. These are listed in the appropriate sections in this report.
- The importance of strong political will, based on broad societal support, was a theme that ran through the discussions in the workshop. This political and public support will be built only where there is a more coherent message and more effective advocacy from the water sector.
- The extent of collaboration between professionals and institutions within the regions of Asia-Pacific are limited and mechanisms for more effective regional cooperation have great potential for improving knowledge and sharing successful management options.

Foreword

This report gives an overview of the proceedings of the Regional Consultation Workshop of the Water and Poverty Initiative. The Workshop was held in Dhaka, Bangladesh in 22-26 September 2002 and was co-hosted by WARPO (the Water Resources Planning Organization of the Government of Bangladesh) and BRAC (a leading development NGO in Bangladesh). The timing of the workshop was significant, as it was held just a few weeks after the World Summit on Sustainable Development in Johannesburg. The WSSD consolidated the reduction of poverty as the main challenge facing the contemporary world and identified water resources as one of the key issues in addressing this challenge. The WSSD also saw widespread calls for action: there was a general feeling that the global community needs to be more vigorous in the pursuit of activities on the ground rather than the further refinement of principles.

The issues that emerged from the WSSD were strongly reflected in the discussions held in Dhaka, where participants from all of Asia and beyond discussed the potential role of water resources and their management in the reduction of poverty. It was agreed that water does have a key role to play in poverty reduction, but that this role needs to be more sharply focused through better targeting of the needs and potentials of the poor and more effective advocacy for water in poverty reduction policies and programmes. Many examples of how to do this were discussed in the case studies presented in the workshop. Although it is recognised that there are formidable obstacles that need to be overcome, the participants in the workshop left feeling that effective actions are possible and are happening in many places.

These conclusions are supported in the Asian Development Bank, where we have the pleasure to coordinate the Water and Poverty Initiative. The Initiative was initially developed to ensure that poverty-water security issues were discussed in a coherent manner as a key theme in the 3rd World Water Forum in Kyoto in March 2003. Partners in WPI currently include the African Development Bank, Asian Development Bank, Gender and Water Alliance, Global Water Partnership, International Union for the Conservation of Nature, International Water Management Institute, Inter-American Development Bank, Japan Bank for International Cooperation, Japan International Cooperation Agency, Netherlands Ministry of Foreign Affairs, the UK Department for International Development, the Stockholm Environment Institute, UNICEF, WaterAid and the Water Supply and Sanitation Collaborative Council.

The Initiative has developed a thematic framework of water security for the poor, including four important issues for the water security of the poor: (i) the availability of water for production and income generation; (ii) water, sanitation, and hygiene for health; (iii) sustainable environmental management, and (iv) vulnerability to water-related disasters. Six action areas to improve water security for the poor have been agreed in the discussions held so far: (i) pro-poor water governance; (ii) improved access to quality water services; (iii) pro-poor economic growth and livelihood improvement; (iv) community capacity building and empowerment; (v) disaster prevention and mitigation; and (vi) management of the environment.

The Workshop held in Dhaka offered a wide range of new insights into these issues and areas for action. It reaffirmed the potential of improving the management of water as a key input in the battle against poverty and emphasized the need for programs of action that target the specific needs of the poor if this potential is to be realized. These conclusions are elaborated on in more detail in these proceedings.

Wouter Lincklaen Arriëns
Lead Water Resources Specialist
Chair, Water Sector Committee
Asian Development Bank

INAUGURAL SPEECH

Bismillahir Rahmanir Rahim

Mr. Chairperson,
My Colleagues of the Cabinet,
Hon'ble Members of the Parliament,
Mr. Myoung- Ho Shin, Vice President, Asian Development Bank,
Representatives of Diplomatic Mission and Development Partners,
Experts from Home and Abroad,
Ladies and Gentlemen,

Assalamu Alaikum,

I thank the organizers at the outset the Asia-Pacific Regional Consultation Workshop on Water and Poverty. I specially thank the Asian Development Bank and other associated partners for selecting Bangladesh as the venue for this very important workshop. I welcome the experts who have come from different parts of the world including the Asia-Pacific Region.

Water is the most important element of life. Human civilizations were built on the banks of rivers i.e. around water. The role of water in the development of human civilization and upliftment of lifestyle is invaluable.

This Gangetic Delta, our beloved Motherland, is an active delta, which also came out of water. The social, economic and cultural life of the people of Bangladesh is inseparable from water. Water is our priceless resource. We need safe and adequate quantity of water for crop production, industrial development, protection of environment and bio-diversity, navigation, drinking and domestic use and for livestock.

As you all know, by utilizing water resources, we have been able to increase food production substantially. We are gradually progressing to make agricultural sector an export oriented one by controlling flood, improving drainage and providing irrigation facilities.

Previously crop yield per hectare was less than 1 ton but now it is 4 to 8 ton. In one irrigation season, 3 labours can get employment for 3 months per hectare of land. A considerable part of the value-added to a ton of paddy produced goes to the producers. Thus water is playing a vital role in alleviating poverty in the rural areas of Bangladesh.

Although water is a valuable resource but we have some water related problems. Every year one fifth of the country goes under floodwater and millions of people suffer. Flood has become a terrible and disastrous feature in the last two decades. But we are unable to control the deadly menace of flood. One of the main reasons is that, 92% of the catchment area of the rivers flowing through Bangladesh lies outside the territory of the country.

Apart from flooding, river erosion is a severe problem. Every year some 10,000 ha of land is lost due to river erosion, rendering about 60,000 people homeless.

The third scenario of water problem is water scarcity for irrigation and the effects of drought. Only 60% of the irrigable land has come under irrigation. In dry season some land are cultivated depending on rainfall. But due to drought, and untimely rainfall, every year crops are severely damaged.

On the other hand, due to unilateral withdrawal of water in the upper riparian areas, a vast area of Bangladesh is subjected to desertification. More-over groundwater reserve of some areas of the country have become arsenic contaminated. To solve these problems we need our own initiatives and also international assistance and support.

The development of agro-based Bangladesh depends much on timely availability and supply of safe and adequate quantity of water, flood and erosion control, water conservation and planned use of water resources. These matters are also very important in poverty reduction. And for this reason Shahid President Ziaur Rahman initiated the programmes of rehabilitation of landless people and distribution of 'khas land' to the landless people through implementation of Land Reclamation Project and Delta Development Project. We have prepared the poverty reduction strategy paper (PRSP). One of the important aspects of the PRSP is proper utilization of water resources, distribution of safe water to rural and urban people, pollution control and planned investment for the development of water resources.

For this a National Water Management Plan is under consideration for approval of the Government.

But as a lower riparian country, Bangladesh alone cannot develop its water resources. As such we always attach high importance of regional cooperation. Unilateral withdrawal of water by upper riparian countries makes the poverty situation of the lower riparian worse.

Ladies and gentlemen

Bangladesh is suffering from poverty for some centuries. Definition of poverty has changed. Only to have two meals a day is not considered as poverty alleviation. Education, health, supply of safe and pure drinking water facilities are getting more and more emphasis. Although now the incidences of water-borne diseases have reduced considerably but children are not yet completely safe from one or two types of diseases. The use of safe water for domestic purposes is still limited. Those who are comparatively poor, suffer most. We are trying to improve this situation.

I want to mention the initiatives of the NGOs for making easy availability of safe water to the poor community. Programmes of the NGOs helped in developing a network for supply of safe and pure drinking water to the rural villages. NGOs are playing plausible role in raising peoples awareness in the areas of health and environment.

Through this workshop, our local experts will get scope for sharing views with other countries. This will enhance their expertise to further develop and improve national water management in our country. In this connection, I like to draw attention of the experts, to the fact that many water related problems can be solved through application of local and indigenous technology and, infact, our rural people practice those. Hence importance must be attached to innovation, development and use of loss-cost local technology instead of expensive technologies. In this regard, views and assistance from foreign experts may be taken.

Your valuable suggestions and recommendations on how water resources can be utilized in reducing poverty in a comprehensive way' will be considered with due importance.

I am happy to learn that WARPO, a government organization and BRAC, an NGO have jointly organized this workshop. This workshop will be a bright example of cooperation between government and NGOs in the areas of development.

I thank the Asian Development Bank, Governments of the Netherlands and Denmark for providing assistance in organizing the workshop.

Allah Hafez
Bangladesh Zindabad

OPENING ADDRESS, Myoung-Ho Shin, Vice-President, Asian Development Bank

Honorable Prime Minister, Excellencies, Ladies and Gentlemen,

On behalf of the Asian Development Bank and our collaborating partners in the Water and Poverty Initiative, I warmly welcome you all to this Regional Consultation Workshop on Water and Poverty.

We are very pleased to cosponsor this event with several partners. These include: the Government of Bangladesh, through the Ministry of Water Resources and the Water Resources Planning Organization; BRAC, a leading Bangladesh NGO; the Japan Water Resources Association; the Secretariat of the 3rd World Water Forum, and the Embassies of Denmark and Netherlands here in Dhaka. Many of the collaborating partners in the Water and Poverty Initiative have also contributed to the meeting by financing participants to travel to Dhaka. Thank you all for helping to bring us together for this important workshop.

I want to extend a special welcome to the community representatives and case study presenters, both women and men, who are going to make a tremendous contribution to this workshop by sharing good news and lessons learned about actions taken in their localities around the region to improve water management.

Water as a Personal Issue

I want to start off by saying that I regard water as a very personal issue. Wherever we come from, whatever our status in life is, water is important to all of us. It is a personal issue affecting our life—from health and sanitation to food security, from livelihood to leisure and environment, and in so many other ways. When managed in a sustainable manner, water gives us good harvests, health, prosperity, and ecological abundance. Without good water services, and when used in a fragmented manner for short-term needs, water can cause disease, environmental degradation and human conflict.

It is easy to discuss water issues in an abstract or even academic way. We must remember, however, that behind each water problem there is an individual, household, or community. Our water policies and programs must be judged by the impact they have on the people we want to help. I ask you all to see water as a personal issue and to keep people at the center of our discussions, to learn from local communities and experts, and to consider what each of us can do personally in our own lives to improve water management.

Water Security for the Poor

Ladies and gentlemen, it has been said that this new century will see a crisis of water, and that wars may even be fought over water. Speaking for the Asia region, 1 in 3 people does not have safe drinking water, and 1 in 2 does not have adequate sanitation. Some predictions say that 2 out of 3 people in the world will be facing a water shortage by 2025. Many of those are in Asia.

During the 2nd World Water Forum in 2000 in The Hague, water security was recognized as a major challenge for the 21st century. Water security means that all people, including the poor, have access to water services to meet their basic need. It means they are able to take advantage of the opportunities that water resources provide. It means they are protected from water-related hazards. And it means that they have recourse where conflicts over water arise. Later in 2000, the UN Millennium Assembly set the global target to “halve, by 2015, the proportion of people who are unable to reach or afford safe drinking water resources.” This target was confirmed during the recent Johannesburg Summit, and expanded to include sanitation.

Water and Poverty Initiative

Ladies and Gentlemen, Asia contains most of the world's poorest people, many of whom face acute water problems. Yet the potential of water investment as a tool for reducing poverty and

building sustainable livelihoods has not been realized fully. The Water and Poverty Initiative is our collective effort to improve water security for the poor. The Initiative was launched in February this year in Manila jointly by a large group of organizations interested in improving water security for the poor. ADB is coordinating the Initiative through a steering group. Together, we want to ensure better understanding of water and poverty linkages and to catalyze actions and investment around the region.

The Initiative has already developed a framework with six action areas: pro-poor water policies, better water services, water for livelihoods, community empowerment, mitigation of water-related disasters, and sustainable management of ecosystems on which the poor rely for their living. The framework addresses both water services and the management of water resources. It also includes policy and governance reforms. In improving pro-poor water governance, it is critical that women play a central role at all levels. This Workshop will show through case studies how success can be achieved in all six areas.

The Initiative offers a good opportunity to build a consensus across a wide range of stakeholders to ensure that water plays a more central role in national poverty reduction policies and programs as well as in specific water sector investment projects.

Across the world, governments and development agencies have been placing poverty reduction more at the center of their efforts. Together, we need to demonstrate how investments and actions in water management can be better designed to make maximum impact on poverty reduction.

To achieve this, we need a better understanding of the dimensions of poverty. We can no longer think of poverty as simply an income of less than a dollar a day. Poor health and an inadequate diet, vulnerability to disasters or violence, poor access to basic services, few or no prospects for improvement in this or the next generation – all of these are expressions of poverty, and must be addressed in our policies and programs.

Speaking for ADB, poverty reduction is ADB's top priority. We have restructured our operations in recent years to focus our efforts more directly on poverty in the Asia-Pacific region. We now assess all our activities, including our water sector operations, in terms of how they contribute to the fight against poverty. For us, as for many in the international community, the Millennium Development Goals provide an immediate reference point to guide our efforts. We are reaching out to work more closely with our development partners, including government and civil society, to achieve these Goals.

Regional Consultation on Water and Poverty

Ladies and gentlemen, this regional consultation workshop has been organized to bring us a step closer in achieving our goals. We will learn from case studies in each of the six action areas I mentioned. Many of the case studies to be presented here are good examples for further investment programs. We will identify needs for further case studies and thematic papers. This will help us prepare for the 3rd World Water Forum in Kyoto in March 2003, where water and poverty will take center stage. To date, the Initiative plans to conduct several sessions on water and poverty in Kyoto, including the Water Development Partners Panel of high-profile representatives of the international community. There will also be an opportunity to make a statement on water and poverty to the Ministerial Conference in Kyoto.

This Workshop in Dhaka brings together many stakeholders from all over the region and beyond, and we have the opportunity to share with, and learn from, each other. Most important of all, we have an opportunity to develop further programs of action and investment to improve water security for poor people.

Water in Asian Cities Program

In this regard, I would like to challenge you all to use the next four days to turn the Water and Poverty Initiative into a platform for water actions in rural Asia. In Johannesburg, ADB's President signed a letter of intent with UN Habitat for a Water in Asian Cities Program. That program will boost investments in water and sanitation and thereby help to reduce poverty in Asian cities. We hope to launch the Water in Asian Cities Program at the 3rd World Water Forum next March.

Rural Asia Water Program

I challenge all of you here to work with ADB and the collaborating partners in the Water and Poverty Initiative to develop similar water action programs in rural Asia, where most of the region's poor people live. Let us work together in the Water and Poverty Initiative so that we can announce the start of such action programs in Kyoto, to complement the Water in Asian Cities Program. The six action areas of the Water and Poverty Initiative provide a good basis for water action programs in rural Asia. In this connection, I want to give you two pointers for your discussions in the next four days.

The Power of Good Example

The first pointer is what I call "The Power of Good Example". Case studies are at the heart of the Water and Poverty Initiative and of our preparations for Kyoto. The case studies to be presented here in Dhaka can show the way forward for investment projects to improve water security for the poor in Asia.

The Power of Partnership

My second pointer is on "The Power of Partnership". The World Summit on Sustainable Development underlined the need for better partnerships. The Water in Asian Cities Program announced in Johannesburg is an example of a new partnership between ADB, UN Habitat, and the Netherlands Government. The Water and Poverty Initiative should develop further partnerships for action, especially in rural areas.

Who are we looking for to become partners with ADB in rural Asia water programs? We think, first of all, of regional and local government units that can champion water action programs with local communities. And we think of national governments that will adopt transparent pro-poor water policies to promote such rural water action programs on a demand basis. We think of NGOs, international organizations like UNICEF, and research institutes that can develop and pilot test the design and implementation process for such action programs, and that is why the case studies presented here in Dhaka this week are so critical.

We also think of interested private sector firms with the commitment and management skills to rapidly implement water investment programs through local government units and local communities. And we think of bilateral funding agencies to work with us in funding policy dialogue, pilot testing, program management and capacity building for such action programs. Their grant financing will complement the loan financing that can be provided by ADB through the governments of participating countries.

Conclusion

Excellencies, ladies and gentlemen, in conclusion, this Workshop is an important milestone in the Water and Poverty Initiative and in preparation for the 3rd World Water Forum in Kyoto. You know what the critical issues and concerns are. The question is how we can address them, and how we are going to work together in partnership in effective and demand-based action programs. The Forum in Kyoto will celebrate water actions. Let us develop action programs for water in rural Asia, and to prepare to announce these in Kyoto. ADB's resources are at your disposal to work with you. We want water and poverty to take center stage in Kyoto. Let us collaborate in helping the poor out of poverty by developing better water services, and by improving the management of water, our most precious natural resource.

1 INTRODUCTION

This report summarizes the main presentations, thematic working group outputs, plenary discussions, case studies, recommendations and action points of the Asia-Pacific Regional Consultation Workshop on Water and Poverty held in Dhaka, Bangladesh, from 22-26 September 2003. Although there is not the space to print all of the presentations and case studies made in Dhaka, these have been loaded onto the Asian Development Bank's website for the Water and Poverty Initiative (www.adb.org/water)

The workshop was sponsored by the Ministry of Water Resources of the Government of Bangladesh (GoB), Asian Development Bank (ADB), The Netherlands and Denmark. The ADB, WARPO (WAtER Planning Organization of the GoB) and BRAC, a leading poverty-focused NGO, have organized the workshop.

2 CONTEXT

2.1 Background

The need for water security in the 21st Century for all was adopted as the key challenge at the 2nd World Water Forum (WWF) and the Ministerial Conference in The Hague in March 2000. Water security implies that all people, including the poor, have access to water services to meet their basic needs. The needs of the poorest people and the poorest nations are seen as the highest priority for the international community. This position was re-affirmed at the World Summit on Sustainable Development held in Johannesburg in 2002.

Water and Poverty will be a core theme for the 3rd World Water Forum, to be held in Kyoto, Japan from 16-23 March 2003. The Water and Poverty Initiative (WPI) is a multi-organization initiative coordinated by the Asian Development Bank. The WPI includes extensive consultations with stakeholders at the national and international levels and includes case studies to ensure that the voices of the poor are heard and positive experiences on actions to improve water security of the poor are identified. Case studies include examples from around the world. They consist of all levels, including examples of pro-poor policies and institutional changes as well as community-level experiences of positive actions.

As part of the consultation process, it was decided to hold the Asia-Pacific Consultation Workshop in Dhaka from 22-26 September 2002. The goal of the workshop was to gain insights into the experiences and perspectives of policy makers and practitioners from across the Asia region. These perspectives provide the basis for the revision of the conceptual framework of the WPI and the identification of the types of actions that can improve the contribution that water management makes to the reduction of poverty in the Asia region and beyond.

2.2 Aims

The WPI aims to generate lessons learned from ongoing work around the world, raise awareness on the need to improve water security from the poor, and catalyze further action and financing at community, country and international levels. It will achieve this through the creation of interactions between stakeholders, the generation and dissemination of knowledge, advocacy at national and international levels and the development of action programs based on partnerships within developing countries.

2.3 Structure

To contribute to these aims the workshop, the case studies and the discussions were structured around the following seven themes (see Appendix A for the workshop program):

1. Pro-poor Water Governance
2. Improved access to Quality Water Services – Domestic Supply

3. Improved access to Quality Water Services – Food Security
4. Pro-poor Economic Growth and Livelihood Improvement
5. Community Capacity Building and Empowerment
6. Disaster Prevention and Mitigation
7. Management of the Environment

The workshop included presentations by eminent speakers, working sessions on key issues, field visits to projects addressing greater water security in Bangladesh, poster sessions, cultural displays and sessions where representatives of poor communities could articulate their experiences.

2.4 Participants

Participants in the workshop was by invitation only. Around 297 participants from across the Asia-Pacific region, including 100 from Bangladesh and a small number of other parts of the world took part in the workshop. They included people involved in poverty initiatives from inside and outside the water sector as well as from the NGO sector. Of the participants, 66 (22.22%) were female, 104 (35%) were official government delegates and 24 (8%) were from the private sector (see Appendix B for a list of participants).

3 SUMMARY OF THE THEMATIC FRAMEWORK

Presentation by Professor John Soussan, Coordinator of the Water and Poverty Initiative

Objective

The purpose of this note is to stimulate discussion on a common thematic framework in preparation of the Water and Poverty Initiative for the 3rd World Water Forum (WWF).¹ The thematic framework will then guide the selection of case studies and compilation of lessons learned from a multitude of water-related actions taken in the Asia-Pacific region and elsewhere in the world to improve the water security of the poor.

Background

The need for water security was adopted at the 2nd WWF in 2000 in The Hague as a major development challenge for the 21st century. Water security implies that all people, including the poor, have access to water services to meet their basic needs, that they are able to take advantage of the opportunities that water resources provide, that they are protected from water-related hazards, and that they have recourse where conflicts over water arise. The 2nd WWF recognized that the water crisis is essentially a crisis of water governance, of ensuring that everyone, including the poor, have adequate access to water services, and that water resources are managed in a sustainable way.

Water and the Poor

The 3rd WWF will focus on water actions around the world that help to achieve the vision of water security in the 21st century. Water and Poverty will be a central theme at the 3rd WWF, because the poor are hardest hit by water-related problems. Globally, 1.1 billion people lack access to safe water supply and 2.4 billion lack adequate sanitation. More than 80 percent of these poor people live in rural areas but the number of urban residents without adequate water services is increasing rapidly. The majority of those without adequate water services live in Asia, while Sub-Saharan Africa has the highest proportion of people without water. Many poor people also face other problems with water security: they are vulnerable to disasters, are the victims of conflicts over water resources or face declining stocks of fish or other products essential to their livelihoods. Poor water security also has other consequences for the poor: for example, ill health that undermines the family's livelihoods or investments destroyed by disasters.

In Asia, one in three people does not have access to a safe drinking water source within 200 meters of the home, and one in two people does not have access to adequate sanitation. Of those without access to safe drinking water, more than 700 million live in rural areas and more than 90 million in urban areas. Access to adequate sanitation is denied to 1.7 billion people in rural areas and about 300 million in urban areas.

Water scarcity impacts on health, and the conditions and quality of life. The poor are particularly vulnerable to water scarcity, pollution, droughts and flooding. Gender is a central issue: women are the main water providers and face the worst problems when water security is low. While it is clear that the management of water resources and the delivery of water services are central to investments to reduce poverty, there is much to learn about how such investments can be made more effective.

¹ This note draws on ADB's water policy entitled "Water for All" and on a discussion paper on poverty and water security prepared by Professor John Soussan of the Stockholm Environment Institute at York University.

Need for Collaboration

The Water and Poverty Initiative aims to generate lessons learned from ongoing work around the world, raise awareness on the need to improve water security for the poor, and catalyze further action and financing at community, country, and international levels. To achieve this, a partnership is necessary that involves all stakeholders, both within developing countries, and in the international water community. The preparation of the Water and Poverty Initiative for the 3rd WWF needs active collaboration among policy and decision-makers, practitioners, funding agencies, the private sector, NGOs, professional organizations, and the media. The initiative aims to develop the basis for this partnership and to generate a common understanding and commitment to work together in preparation for the 3rd WWF. As part of this, the Initiative will develop strong links with a range of other themes and dialogues being developed for Kyoto, so that there is both a strong core program and a coherent position on poverty and water security that cuts across all the different sessions at the 3rd WWF.

Four Aspects of Water Security for the Poor

Water needs are intricately woven through the daily life of poor communities. Four aspects are particularly important: (i) the availability of water for production and income generation; (ii) water, sanitation, and hygiene for health; (iii) sustainable environmental management, and (iv) vulnerability to water-related disasters.

1. Production. Economic growth is a main engine for poverty reduction, and water serves as a direct input to economic growth through agriculture, other community-level income-generating activities, and to manufacturing and other larger economic activities that provide employment for poor people and help them overcome their lack of assets such as land.

2. Health. Water, together with sanitation and hygiene, directly affects the health conditions of the poor, and especially of vulnerable groups such as children, women, and the elderly. Women's roles are central, in particular in rural communities, where they are the providers of water in the home.

3. Environment. Many rural poor communities depend on sensitive ecosystems such as forests and lakes for their livelihoods, yet their basic needs are often causing severe degradation of these ecosystems in the absence of viable and sustainable arrangements to manage the ecosystems with their participation.

4. Vulnerability. The poor are particularly vulnerable to water-related hazards, such as floods, droughts, typhoons, landslides, and pollution.

The form that the relationship between water and poverty takes is as diverse as poverty itself. There are no prescriptions, but there are areas where action is needed in most places where the poor face problems with water security. In all places, the starting point is to build from the capabilities and assets that poor communities possess. Poor communities have clear views on both the challenges they face and the solutions they aspire to: indeed, listening to the poor is a central theme of the Initiative.

Six Key Result Areas for Action

Six key result areas are presented below as a thematic framework for action to improve water security for the poor: (i) pro-poor water governance; (ii) improved access to quality water services; (iii) pro-poor economic growth and livelihood improvement; (iv) community capacity building and empowerment; (v) disaster prevention and mitigation; and (vi) management of the environment.

1. Pro-Poor Water Governance. Strengthen pro-poor water governance through water policies, laws, action agendas, and better information management. Introduce pro-poor safeguards in integrated water resources management work such as in river basin planning and management, water rights and entitlements, and allocation. Improve stakeholder consultation and participation across all water sector activities, in particular the participation of women. Mainstream gender and development issues in all water sector activities, and

empower women to improve water management. Increase public awareness about and political support for the water security needs of the poor.

2. Improved Access to Quality Water Services. Increase the access of the poor to water services: drinking water supply (with hygiene and sanitation), irrigation and drainage and in other areas. Put people at the center of viable and affordable services to be delivered by public, private, and community providers that are accountable to their users, including the poor. Mobilize funds from the community of water users, and from national and international sources. Increase public awareness on the need for autonomous and accountable water service providers and cost sharing with users.

3. Pro-poor Economic Growth and Livelihood Improvement. Increase investments in agriculture, rural development, and other water using sectors that generate direct income for poor communities. Strengthen the asset base of the poor and help develop sustainable livelihood diversification opportunities. Introduce targeted interventions that ensure economic benefits for the poor, as part of, or to complement investments aimed at broad-based economic growth. Include investments in micro-finance as needed.

4. Community Capacity Building and Empowerment. Invest in capacity building in poor communities to help them improve the management of their water resources, negotiate better access to water services, and promote empowerment to improve their livelihoods through income generating activities. Promote awareness of the need for communities to manage their water resources in a sustainable way, using examples of poor communities who have been successful in empowerment. Ensure gender equity in water management.

5. Disaster Prevention and Mitigation. Improve the resilience of the poor to water-related disasters, through better forecasting, relief and recovery systems, including both structural and nonstructural investments in prevention and mitigation interventions. This concerns rapid onset disasters such as floods and slow-onset disasters like droughts and water pollution. Promote the need for disaster prevention measures for the poor to be included in all water projects.

6. Management of the Environment. Introduce sustainable natural resource management arrangements with the participation of the poor, particularly in the upper watersheds and in wetlands and other common property resources. Maintain the biodiversity on which many of the rural poor rely for their livelihood, and reduce the unsustainable exploitation caused by poor communities in their efforts to meet short-term needs. Promote awareness of the need for sustainable natural resources management among the public and in poor communities.

These six key result areas can be used to select, prepare, and present case studies and other analyses for the Water and Poverty Initiative. The presentation of actions can be shown under different categories, including the (i) *type of action*, including policy/legal, institutional arrangements, financing arrangements, infrastructure development, awareness building; (ii) *level of action*, including local, river basin, national, international; and (iii) *area of action*, including cities and rural areas in various geographical settings ranging from upland and mountainous areas to flood plains, coastal zones, and islands. The analysis of case studies will of course also help to understand the many interrelationships between the key result areas of water security for the poor.

The Bottom Line – A Call to Action

The 3rd WWF will **focus on action**. The Water and Poverty Initiative will present actions taken around the world to improve water security for the poor, raise awareness about water-poverty links and advocate the need for further actions and financing. The six key result areas presented above are proposed as the thematic framework to organize the work under the Initiative. Collaboration is needed among all partners in the Initiative, as the issues cut across traditional sectors, and the challenges go beyond the individual mandates of each organization.

4 Keynote Papers

“Policies For Pro-Poor Water Development”, Keynote Paper by Shireen Lateef, Principal Social Development Specialist, Asian Development Bank

Good Morning – It is my pleasure to talk to you today about Policies for Pro-Poor Water Development. But before I do this – I want to start by telling you a story.

This is a story about a water supply project. Under this project, villages were provided with standpipes. In this particular village the standpipe was the pride of the village and located near the community center. After a year, a team consisting of government officials and the donor agency visited the project. During the meeting in the village leaders highlighted the positive changes experienced as a result of the water supply project. In particular mention was made of the time saved especially by women since they no longer had to spend long hours walking to fetch and haul water. It was also mentioned that young girls could now attend school more regularly as their labor was not required for fetching and carrying water. The attention to women led one of the visiting team members to ask “where are the women?” since women were obviously not around in the village. She was told they were down at the river washing clothes. Perplexed – the visiting team inquired why women were washing in the river when the village now had a water supply system. No one seemed to know the answer. So the female team member asked to go to the river to talk to women. There she found out that women were not willing to wash clothes and bathe in the middle of the village – in front of the community center where men congregated. Also, washing clothes in the river provided women the opportunity to socialize with other women and to share and exchange information.

How could this situation have been avoided? The answer is obvious – women should have been asked the question – where should the stand-pipe be located? Unfortunately, obvious though it might be – this question is still not asked everywhere and not often enough. Asking the question, listening and hearing what women say, taking their opinion into account and giving them voice in decision-making encapsulates some of the fundamental features of pro-poor water development.

What do we mean by pro-poor? The words pro-poor are all the rage in current ‘development speak’. Some might even say it is becoming over-used and an ‘in vogue’ preface in all development initiatives. The challenge confronting all of us here today is how to transform ‘pro-poor’ from being a fashionable preface to meaningful action. In other words, translating the rhetoric to making it a reality.

Making the development of water resources and services more pro-poor – turning the rhetoric into reality – means ensuring greater access to water security for the poor through improving access to water resources for basic needs, livelihood improvements and economic development. To do this requires dealing with social and gender issues as core – as the central focus. After all, it is women and the poor who bear the burden when water security is not met.

I have the pleasure of speaking today to an audience from a region where water policy reform is a vibrant and live issue. Many countries in Asia and the Pacific have introduced new policies in recent years. Others are in the process of doing so now. A central thrust of many of these reforms - water management for poverty reduction. This is also true of many donors and international organizations: we in the ADB recently introduced a new water policy - Water for All. The title encapsulates many of the issues that we are discussing.

The points that I shall be making today are intended to stimulate this process of discussion and dialogue, to foreshadow the issues that we should be discussing in this workshop and beyond.

Social and gender issues are at the core. Poor people often come from minority and marginalized groups that have different needs and interests to other sections of society. Women are key water managers. Yet, they have little say in decisions over resource allocations than men. All research and experience indicate that effective, effective and equitable management of water can only be

achieved when both men and women are involved in making decisions about sharing, supplying and protecting water.

Any pro-poor approach to water policies must focus on empowerment: on building mechanisms through which the poor in general and poor women in particular can be given voice, choice, and power over decisions that intrinsically affect their livelihoods and basic survival.

The absence of an effective policy framework is one of the major obstacles. We have gathered here many senior policy makers, and many others who have a great influence on the policy process. Our challenge, together, is to give the poor a voice, and more importantly, ensure their voices are heard loud and clear in the making and implementing of water policies.

This is critical – around the world we see examples of excellent policies on paper that are never implemented or are only partly implemented. We need to stop thinking of policies as documents sitting on shelves or distributed in colorful booklets. We need to start thinking about policy as a process that defines goals and objectives and ensures that the means to achieve these goals and objectives are available.

This must include making the necessary changes to the mandates, budgets and procedures of the government agencies on which much of the burden of implementing policies will fall. It must include steps to ensure that the participation of civil society, and especially of poor people and women is ensured in all steps of the policy process. Finally, it must include actions to ensure that people in government agencies, in civil society and in poor communities know about policy changes and are aware of their rights, obligations and entitlements.

There is no simple prescription, no simple formula, no simple answer. But there are some basic features of pro-poor policy processes that we should strive towards.

The first and by far the most important is to ensure that the poor are central actors in all stages of policy development and implementation. We need to start by understanding who the poor really are, their problems and their potential. Two key points need to be made here:

1. Poor communities depend on natural resources for their survival. Yet, they have the least control over these resources.
2. Rhetorical gestures towards more socially inclusive and gender inclusive approaches must stop. Concrete actions must be taken to empower women and the poor.

This must go beyond the token “consultations”, or the token representation of women in water user groups. Policies to ensure the empowerment of poor people and women should include:

- Making sure that laws and policies guarantee the rights of the poor to access water resources for their most fundamental needs. This means having enough good quality water for drinking, for cooking, for washing, for hygiene and for other basic household needs. It also includes access to water resources that are essential to the livelihoods of the poor.
- Devolving authority over decisions and establishing mechanisms through which the needs and interests of women and the poor are fully represented. These mechanisms need to be linked to wider institutional reforms such as decentralisation and the development of local government structures. But they must also be fair, transparent and efficient.

We know that everyone cannot participate in every decision. But they can be represented. This is possible where the nature of governance in a society is itself fair, transparent and efficient. In other words, reforms in the water sector cannot be separated from wider social and institutional changes.

Here, civil society can play a key role, with NGOs often at the forefront but by no means the only representatives of civil society. This role can take two forms:

1. As direct actors, linking local communities to the system through helping to organise, build capacity, facilitate and ensure the voice of the poor and women in decision-making.
2. As 'watchdog' and advocates, where civil society monitors decision-making to ensure the poor are represented and actively advocates pro-poor policies and programs.

Capacity-building programs are needed at all level, including both within government agencies and amongst poor communities themselves. This is a very broad area of action, but two particular aspects of capacity-building need to be targeted:

1. Increasing the knowledge, confidence and organization of poor women to interact and negotiate with government officials and agencies and to fully participate and equals in decision-making systems.
2. Assisting government officials at the lower levels, especially those working at the interface with poor, to understand their new responsibilities. Policies may change, new processes adopted at the center. But this message does not always filter down to the levels where it can most important. Sometimes there is real resistance to change at these more junior levels. Actions must include better incentives to encourage reform.

Ensuring that there are adequate finances to make the investments needed to improve water services for the poor and to ensure sustainable operation and maintenance once the investments are made. Ensuring that the money is available is essential for the implementation of pro-poor water policies.

This does not mean that all the money has to come from governments and/or the international donor community. Indeed, this is not possible. Many poor people are both willing and able to make the investments that they need to in water services if they have real choices that meet their needs.

A very good example of this can be seen in any village here in Bangladesh. The last generation has seen a transformation of water management at the village level. In particular, we have seen the proliferation of hand pumps for domestic water supply and of shallow tube wells for dry season irrigation. Both have revolutionised rural life and led to substantial improvements to the health and wealth of many poor people. Almost all of these investments have been by private individuals and without subsidies. What has happened here is possible in many places where the incentives exist and the means to make investment choices are available.

Separating implementation from regulatory mechanisms and ensuring that effective monitoring of policies to ensure that pro-poor goals are achieved takes place. This includes the need to define good indicators that help us to understand whether policies really are benefiting the poor. Community monitoring should be seriously considered.

Steps to ensure that water policies recognize that conflicts over water resources are sometimes inevitable. There needs to be fair and representative mechanisms for conflict mitigation. Dispute resolution mechanisms that are fair, transparent and inclusive are required. These should be ones that women and poor people understand, can access and can afford.

Good governance (including reducing corruption) are essential. There are three reasons why good governance is so important for water:

1. The nature of water resources means that they cannot simply be governed by private ownership.
2. The same resources often have many different uses. Each one having different values for different people.

3. These resources are so valuable, so essential to many areas of economic activity, and so open to “externalities” such as waste disposal or over-abstraction that there is always a danger of their being abused. This abuse is often by the more powerful and at the expense of the weak and poor.

These are some of the key elements that we must look for in pro-poor water policies. Of course, like any area of policy the specifics of what needs to be done are particular to any one place and time, but actions to improve the water security of the poor by policy actions need to be guided by these principles.

Finally, I would like to discuss two aspects of policy where national processes are linked to the international community: the Millennium Development Goals (MDGs) and Poverty Reduction Strategy Programs (PRSPs).

The MDGs include one specific water-related target: to halve, by 2015, the proportion of people without sustainable access to safe drinking water. The World Summit on Sustainable Development in Johannesburg added a similar goal on basic sanitation.

We have all agreed to these targets. Vigorous and effective programs to achieve them must be a central feature of pro-poor water policies. This must not be done, however, through recourse to the sort of top-down, supply-driven investment programs that have failed so often in the past. We will only achieve these targets in a sustainable way through empowering poor people to make the choices to meet these goals themselves.

The MDGs also contain several other targets, on food security, education of girls, gender equality, women and children’s health, slum improvements and ecosystems protection, for which water management can make vital contributions. When we look at the role of water policies in poverty reduction, we should not just think about the drinking water and sanitation targets, important as they are. We must also link and promote a better awareness of the contribution of water to achieving all of the other MDGs. For example, water security for poor women would contribute positively to better women’s health, more girls attending school more regularly and the empowerment of women. These links and connections need to be made more overtly.

PRSPs are of increasing importance in defining the direction of national poverty reduction policies and the contribution that the international community can make to achieving these goals. Worryingly, few of the PRSPs so far published contain anything other than a passing reference to the role of water in poverty reduction. But this contribution is potentially huge. There is a challenge for us all to be more direct, more articulate, in advocating for the recognition of water as a central aspect of poverty reduction programs.

Finally, pro-poor policies for water are not just about water policies. They are also about poverty policies. They are about policies for gender equality. In short, they are about closing the gap between men and women; rich and poor; the have’s and have-nots. Unless all these issues are recognized and addressed, pro-poor water policies will remain simply sentiments expounded in workshops such as these, and reflected in policy documents that gather dust on bookshelves. Our combined challenge is to convert the sentiments into meaningful action to make pro-poor water policies a reality. I hope that the discussions in this workshop will help us to meet this challenge.

I thank you for your kind attention.

Keynote speech by Mr. Apichart Anukularmphai, Chair, GWP SEATAC

This conference is very timely as it tackles an issue that is very critical not only in Asia but globally as well. How do we relate water with poverty? In developing countries, the association between water and poverty are very evident in two glaring issues. One, the lack of access to safe drinking water and sanitation, and two, food security. Of course there are other allied issues as well, such as education, income generation, and others, but let me emphasize this presentation on the first two that I mentioned.

Let me talk first about safe drinking water and sanitation. About 1.1 billion people worldwide do not have access to safe drinking water while around 2.2 billion have no adequate sanitation. Majority of these people are in the Asian region. In Cambodia, Lao and Vietnam, only about 40% of the population have access to safe water, and only about 20% has adequate sanitation.

We cannot overemphasize the importance of safe drinking water for human life and livelihood. Sadly, this basic of all human necessities ranks very low in terms of priority among governments. Other utilities are given more importance, such as electricity which receives a very high level of government support and both public and private investments. In the Philippines and Thailand, this is very evident with energized populations nearing 100% while access to safe water is only about 70%. Electricity indeed powers industries, but the human population needs water first to survive and in turn develop the economy.

Why then do we see all these problems in the water sector? Probably because there are too many obstacles that have yet to be resolved.

First, the notion that water is a free resource is still very prevalent. Many decision-makers argue that water should remain free particularly for the poor sector, and that it should not be priced as it is abundant anyway. This creates an environment of dependence, as the poor will continuously rely on governments to provide for their water needs without any cost to themselves. They will not be willing to pay for water, but they are willing to pay for electricity even if they are poor as governments decree that electricity is not a free resource. These payments for electricity further develops this resource as it generates capital for expansion and further investments, something that the water sector seriously needs.

Second, there is a commercial disadvantage in supplying water in rural areas where the population density is low, and households and villages are located far apart. The economies of scale does not augur well for rural water supply, as cost of producing and supplying water is economically disadvantageous; takers therefore are very few.

Third, there is an inadequate source of water for human consumption as government's focus often is on tapping water sources for agricultural production.

What then do we do? For one, we can go back to basics! With proper management of traditional systems such as rainfall harvesting, such "old systems" of water collection can provide at least 2 liters per person per day, sufficient for basic human needs. In Thailand, this has been successfully implemented and even developed as an income-generating activity, with collection jars produced by local communities with government support. The limitation with this system is that it can only provide drinking water, but not for other uses such as washing, and therefore a more stable water supply is necessary in the long term.

Another option is to allocate water supply according to domestic, industrial, and agricultural needs. The government however, has to apply the user-pays-principle to ensure that natural and economic capital could be replenished and generated. Public and private participation should also be constantly sought so that user groups and local communities can have access to investments to fund their own activities. The high cost of water supply in rural areas also require government subsidies, to address the needs of poor water users without making them too dependent on the government and keep water prices at an affordable level.

Let us now go to food security.

We all know that food production per se is not the actual problem right now. In many developed countries, food is so abundant and available at any time. But in many other areas, including Asia and Africa, many populations are so desperate even for a glass of clean water and a cup of rice or potatoes to tide them over for a day.

What is the problem? In many developing countries there is too much focus on agricultural production for export to earn precious foreign exchange rather than providing basic food requirements for the local poor. Furthermore, these food products from developing countries have to compete with farmers from developed countries who are provided so many subsidies by their government, and at the same time have assured and protected local and/or international markets for their produce. The result? Many agricultural products from developing countries are priced low in the world market, even if they are able to penetrate the manipulated markets at all.

The problem of access to markets, whether at the national or global level, affect food producers negatively, resulting to overproduction in one area and underproduction in another. To solve these problems, governments should explore the possibility of providing direct price subsidies, or buying the products and selling them at subsidized prices for the poor. On the other hand, promoting barter trading within the country among various sectors is one solution that also has not been adequately explored, but may be as equally effective and applicable with regard to water rights and water uses as well.

In this regard, do you think we are using water wisely to solve poverty? I think not. Water should be used to encourage and ensure farmer sufficiency in food requirements, and not necessarily for irrigation towards export-oriented agricultural production. It is quite ironic that Asian farmers are among the poorest and food insecure population, when they in fact are our food producers. Governments therefore must orient farmers to produce crops for self-sufficiency first, rather than commercial production.

In Thailand, His Majesty The King has advocated the principles of “sufficiency economy”. This means that each family should always attempt first to be self-sufficient by producing and providing food for their own needs, rather than for commercial production or income generation. This has been so successful in Thailand, such that many families who have been able to provide for their food needs have diversified their farms and sold the excess production in the market. The important thing here is FOCUS – by ensuring that home needs are met, families were also able to meet their other needs and wants.

Water for agriculture therefore will have less impact on solving poverty unless associated activities such as market access, improved livelihood, investment opportunities, among others, are addressed. Decision-makers should focus on small-scale projects that are geared towards families and small groups, rather than large-scale irrigation projects whose benefits to solve poverty are still doubtful.

What I have been saying here may no longer be new, but they are still valid today. Developing countries cannot compete at the global level just yet, as it is still a buyer’s market. National production should first be strengthened, and rationalizing water uses is a crucial first step in this direction. Subsidies for agricultural production and water supply can help, but should not be seen as the end all, but rather as a short term solution.

In the end, we can say that without water, a large proportion of the human population worldwide will continue to wallow in poverty, lacking a critical source of nourishment and a powerful medium for economic development. We cannot afford to let that trend continue.

We have to ask, and answer, the painful questions: How do we allocate and price water? How should water benefits be equitably shared? What should we do to make governments finally realize and act to solve these problems? When will discussions stop and actions happen?

My friends, let us act

5 SUMMARY OF THE MAIN PRESENTATIONS

A series of presentations were made to the main plenary sessions of the workshop. Although it is hardly possible to do justice to their full content, the main presentations are summarised here.

Welcome speech by Mr. Wouter T. Lincklaen Arriens, Lead Water Resources Specialist, Asian Development Bank

This workshop is organized to bring together our collective experience related to water with the ultimate aim that that experience will lead to action. Action is needed to assist the one-third of Asians who do not have access to safe drinking water and half of the population with no safe sanitation. Managing water also involves food security and disaster management. This workshop is a step on the way to the 3rd World Water Forum to be held in Kyoto in March 2003. We need to form new partnerships and develop concrete plans for action to enhance the water security of all. It is hoped that this workshop will be a major contribution to achieving this aim.

Speech by Dr. John Soussan, Senior Advisor Water and Poverty Initiative

Water should not only be seen as a problem for the poor, but as part of the solution to poverty reduction. Water is needed for production, health and welfare, ecosystem integrity and freedom from hazards. This workshop will look at these different uses through 6 themes, focused on defining actions that can improve the water security of the poor. The workshop is part of a wider range of activities which includes concept papers, consultations, case studies about what works where and links to other related initiatives. The aim is to integrate water into the mainline poverty alleviation and development debate and action programs.

“Floods and Drought: Problems Faced by the Poor” Bangladesh Water Development Board

The poor in Bangladesh face problems of both too much and too little water. River erosion is one of the ways in which households are pushed into poverty overnight. Flooding gets a lot of attention but in a quarter of the country drought is also a major problem as most of the crops are rain-fed. The BWDB has been involved in water management of decades and all its projects are focused on the poor. However, the impact of these projects on poverty alleviation has not yet reached the desired level.

Speech of Mr. Faisal Ahmed Choudhury, Secretary Ministry of Water Resources, Government of the People’s Republic of Bangladesh

The Secretary pointed out that the presence of many dignitaries, including the Honorable Prime Minister, testifies to the firm commitment of Bangladesh to the theme of the workshop. The Secretary mentioned that more than 1 billion people do not have access to safe drinking water while 2.4 billion, i.e. 40% of the world’s population, lack adequate sanitation. Each year 3.4 million die from water-related diseases. Disputes over water - including threats of "water wars" - are gradually becoming an international concern. Sharing of water among co-riparian countries is a source of bitter dispute. Consequently, the issue of water security for all was identified as the key challenge for this Century in the 2nd World Water Forum in 2000.

Water related disasters, such as floods, can turn households into poverty overnight and protection from water related hazards like flood, cyclone, tidal surge, drought is needed. That is why in the up-coming 3rd World Water Forum to be held in Kyoto (Japan) in March 2003, Water and Poverty has been made a core theme. While it is clear that the management of water resources and the delivery of water services are central to investments to reduce poverty, there is much to learn about how such investments can be made more effective. The workshop is expected to contribute to this process.

Speech by Mr. Faruque Ahmed Chowdhury, Advisor BRAC

Mr. Chowdhury stressed the need to focus on action. In the last few decades there have been both unbelievable advances for some but others have been left in a state of almost total helplessness. Goals have been defined before but we must not focus on what remains to be achieved. In Bangladesh there is a need for government and private sector cooperation, for supplementing each others activities, not for supplanting one with the other.

BRAC's experience is that people must not be seen as objects for development but as the subject. For BRAC the challenge is to target the ultra-poor and to develop a pragmatic approach to achieve the social and institutional development of the poor. The speaker stressed that there are however no instant solutions and that a long term commitment is needed as well as follow-up action.

Speech by Mr. Myoung-Ho Shin, Vice-President, Asian Development Bank

The speaker welcomed the participants and highlighted that during the workshop local community representatives would present good news about developments concerning water as well as lessons learned. He stressed that water is a person issue, the basis of life and that without water there is no life. Policies must be judged by the way they impact individuals, households and communities.

The goal of water security for all means meeting the basic needs of people, particularly of the poor. In the Asia region, 1 in 3 people does not have safe drinking water, and 1 in 2 does not have adequate sanitation. The Water and Poverty Initiative, coordinated by the ADB, was launched in February by a number of organizations interested in improving water security for the poor. Six areas for action have been identified; pro-poor water policies, better water services, water for livelihoods, community empowerment, mitigation of water-related disasters, and sustainable management of ecosystems on which the poor rely for their living.

Investments will have to be better designed to ensure that they become more pro-poor. Poverty reduction is ADB's prime goal and the Millennium Development Goals are an important reference point. In Johannesburg the ADB signed an agreement with UN Habitat and the Government of the Netherlands for a "Water in Asian Cities Program". What is needed now is a similar "Rural Asia Water Program", because most of the world's poor live in rural Asia.

This regional consultation workshop has been organized as a step on the way towards achieving these goals. Participants could focus their discussions around two pointers. The first is the power of good examples, in the form of case studies, showing the way forward. The second pointer is that of partnerships, which are now particularly needed in rural areas. By focusing on these the workshop will be an important step on the way to the 3rd World Water Forum in Kyoto.

Address by Advocate Goutam Chakraborty, Hon'ble State Minister, Ministry of Water Resources, Government of the People's Republic of Bangladesh

The State Minister highlighted that as a signatory to many important protocols and conventions, Bangladesh share fully concern for important issues like "Water and Poverty." The Government of Bangladesh published its first National Water Policy (NWPo) and developed the National Water Management Plan (NWMP), for water management in a comprehensive and integrated manner.

The State Minister also pointed out that raising the production of agricultural resources is the key to alleviate poverty and stimulating economic growth. This is only possible through proper water management with the active participation of all level of stakeholders. Given the specific situation of Bangladesh intensive use of both surface and ground water is unavoidable. This also means wise use of our water for fulfilling multiple objectives of the nation. Poverty alleviation is a complex socio-economic and technological process. The process involves sustainable agriculture and economic development through integrated water resources management. Finally the State Minister called for the expeditious realization of the dream to ensure "food for all".

**Address by Engineer L.K. Siddiqui, Hon'ble Minister, Ministry of Water Resources,
Government of the People's Republic of Bangladesh**

The Minister pointed out that the government had promulgated the National Water Policy and that its aim is to ensure that national development goals are achieved. The National Water Policy should be seen as part of the government's commitment to achieving these development goals. A total of 6 ministries are involved in issues related to water.

In the mean time the National Water Management Plan has been drafted and it is now in the final stage of approval. The National Water Management Plan sets out the priority activities for the management of water resources. The Minister stressed that the time had come to move from talk and targets to action. He wished the workshop participants well.

**“Coastal Zone Policies and Livelihoods in Bangladesh” by Mr. Giasuddin Ahmed
Chowdhury, Director General of WARPO, Bangladesh**

The coastal area of Bangladesh is rich in water and land resources and at risks of natural and man-made calamities. There is a relative absence of government and NGO institutions and services while the law and order situation is often poor. Some parts of the natural resource base, such as the mangrove and other forests, have been irrevocably damaged by human intervention, but the major part the resource base is still intact and able to support sustainable development in general and poverty alleviation in particular. In the last decades the coastal zone has seen economic growth along with some reduction of the extent and severity of poverty. The preconditions for this were created by the water-management, security and transport enhancing infrastructure developed by the government.

The case study highlights that better water management is a precondition for coastal resources to contribute to poverty alleviation. Furthermore, to have a maximum poverty alleviation impact, coastal developing should be a process rooted in the simultaneous enhancement of livelihoods and reduction of multiple vulnerabilities. To be effective the Integrated Coastal Zone Management policy under development will also have to be based on a process, rather than a blue-print approach. It should focus on three crucial points; facilitate coordination among the various actors, complementing the structural with non-structural measures and ensuring more equitable benefit distribution. To ensure change on the ground, the ICZM policy must be accompanied by a phased, evolution-type implementation strategy and time-bound action plan.

**Policies for Pro-Poor Water Development: Keynote Presentation by Shireen Lateef,
Principal Social Development Specialist ADB**

The speaker narrated a story from India which showed that a water supply system was not that beneficial because the main users, women, had not been involved in deciding the location of the standpipe. If water is to become pro-poor, women as key water managers must be given voice, choice and power.

The speaker identified five key basic features of pro-poor policy processes:

1. Ensure that the poor are central in all stages of water resource development
2. Build capacity of communities and of government agencies for them to interact
3. Ensure adequate financing for investments and operation and maintenance
4. Ensure good governance, including reducing corruption.
5. Link national policies with international developments such as the Millennium Development Goals and development of Poverty Reduction Strategy Papers.

Keynote speech by Mr. Apichart Anukularmphai, Chair, GWP SEATAC

The importance of safe drinking water for human life and livelihood cannot be overemphasized. The majority of the 1.1 billion people without access to safe drinking water and 2.2 billion without adequate sanitation live in Asia. Obstacles to solving problems in the water sector are the notion that water is a free resource, the high cost of supplying water to dispersed rural households and the priority given to water for agriculture. Solutions are local water harvesting, as is done in Thailand, and allocating water to the various sectors, including a user-pays-principle.

In many countries a focus on water for irrigation of cash crops has led to food shortages. Subsidies by developed nations distort the market and result in very low prices for products from developing nations. In Thailand the principle of the “sufficiency economy” has been advocated. Farmers first produce enough for their own needs and only then sell what remains in the market. Access to those markets as well as many other associated activities must be addressed. Subsidies for agriculture and water can help, but are not the end all, but rather a short term solution. Though there are still many questions the main one is ‘when will discussions stop and actions happen?’

Gender and Economic Benefits from Domestic Water Supply in Semi-Arid Areas: A Case Study by SEWA in Banaskantha District, Gujarat, Western-India

Two representatives from Banaskantha District Gujarat narrated their personal experience of the link between improved water-supply and poverty alleviation in semi-arid areas. This case study, implemented by the Self Employed Women’s Association (SEWA) in Banaskantha district (Gujarat, India), combines the revival of the piped water supply and traditional water sources with a micro-enterprise development program for female entrepreneurs.

The case study revealed that the time released by an improved water supply enables women enterprise members to make a substantial contribution to the household income, especially at times when other income generating opportunities are absent, for instance, during drought. In addition, gender relations have changed in favour of these women. Policy-wise, the study suggests the need for:

- an integrated approach to rural development and project design influenced by the women;
- involving CBOs, NGOs, and other institutions with experience in improving water supply and supporting micro-enterprise development in the reformulation of current policies;
- combining development of women’s enterprises with that of domestic water supply;
- income-generating opportunities that depend less on water, and are demand-driven;
- drought relief work through craftwork when there are few other economic opportunities;
- gender programmes to start addressing women’s immediate gender needs and link these with the improvement of gender equality between.

Closing speech by Engineer L.K. Siddiqui, Hon’ble Minister, Ministry of Water Resources, Government of the People’s Republic of Bangladesh

In his closing speech the Minister noted that good practices on water resources management were also debated and highlighted. This would definitely promote action at the local level to ensure the attainment of water security, especially for the poor and strengthen the network of development agencies on water sector for poverty alleviation.

He expressed the hope that the workshop had taken into consideration the comments of the Prime Minister about the need to deal with water related vulnerabilities and about the need for interaction and cooperation between government agencies and non-government organizations.

The Minister thanked the sponsors of the workshop for their contribution as well as the organizers - WARPO, BRAC and other government and non-government organizations for working very hard to make this great event a success.

**Speech of Mr. Faisal Ahmed Choudhury, secretary Ministry of Water Resources,
Government of the People's Republic of Bangladesh**

The Secretary extending his heartfelt gratitude to those who took part in the Asia Pacific Regional Consultation Workshop. He also thanked the sponsors of the workshop, the Asian Development Bank and the Governments of the Netherlands and Denmark for selecting Dhaka as the workshop venue. He also expressed his gratitude for the support from the Ministry of Water Resources, WARPO, BRAC and BWDB, LGED, CEGIS, IWM and various NGOs that contributed in the various programs, exhibition, field trip or other social functions.

Finally he expressed the hope that the recommendations available from this workshop will benefit the 3rd World Water Forum reflecting the views of the people affected by the disasters from flood, river bank erosion, cyclonic surge, drought and arsenic contamination and wish the participants a happy journey back home.

6 OUTPUT FROM WORKING GROUPS

6.1 Introduction

The workshop spent two afternoons divided into working groups which were designed to be one of the main channels for consulting delegates on actions for improving the water security of the poor. This was based on the structure of the Water and Poverty Initiative Thematic Framework, with one of the key action areas (improving access to quality water services) divided into two, to allow time for fuller discussion on this key issue. The working groups were:

1. Pro-poor Water Governance
2. Improved access to Quality Water Services – Domestic Supply
3. Improved access to Quality Water Services – Food Security
4. Pro-poor Economic Growth and Livelihood Improvement
5. Community Capacity Building and Empowerment
6. Disaster Prevention and Mitigation
7. Management of the Environment

Each group contained around 30 participants, with a chair, facilitator and rapporteur to guide the discussions and ensure effective reporting. Each group reported back to the plenary after each of the two working group sessions. Short reports (see below) were prepared on each of the working groups and a summary was prepared and presented to the workshop plenary on the last day.

6.2 Summary of the Outcomes of the Working Groups

The outputs from the seven work groups were discussed by the facilitators and rapporteurs, including John Soussan and Anjan Datta who were the co-ordinators of the working groups. The discussions produced a summary of the overall conclusions of the working groups, in which generic issues for improving the water security of the poor were identified. The summary was presented to the plenary session of the workshop by John Soussan and Jennifer Francis. The summary conclusions are presented here.

Focus on Actions

The overwhelming consensus in all of the working groups was that addressing the water security needs of the poor is a top priority in water management and the main principles for approaching this challenge were clear. There is an urgent need to follow this up with a focus on actions that put these principles into practice. The importance of moving to action and a level of frustration with continual rounds of discussion that do not lead to action were sentiments shared by all participants. Although there were inevitably different perspectives on how this should be achieved, the main lines of this move to action were as follows.

The starting point is the **implementation of existing policies**. There are many policies on different aspects of water management and poverty reduction on paper across the Asia-Pacific region that are not put into practice or are only partly implemented. In most cases, policies are of recent origin and need time to be followed through. Too often, policies have been prepared as documents but are not followed up by the changes to institutional mandates, structures and procedures, by capacity development, by the dissemination of their provisions or by adequate allocations of budgets to make them work. There was agreement that policy needs to be seen as a process which includes the implementation of provisions, assessment of impacts and feedback to further amend policy provisions where this is necessary. This rarely happens, but is essential if existing policy provisions are to be effective. Making these changes to the policy process to ensure the implementation of existing policies is a key to the move to action. New policy initiatives should only be considered where there are clear gaps in existing provisions.

Ensure the most basic **needs of the poor**, for life and livelihoods, are met. This is more than just water for health and dignity: it must also include water for food security and adequate nutrition and water as an input into sustaining livelihoods. The full range of needs and uses of water, including domestic water supplies used for productive activities and the water needed to sustain ecosystem integrity, must be defined and included in pro-poor water actions. No assumptions on what types of need exist and what actions are best suited to fill these needs should be made until the voice of the poor is heard and poor communities themselves articulate their priorities and potentials.

Better **targeting and prioritisation** of actions to the needs, priorities and capabilities of the poor is essential. It cannot be assumed that changes to water management will effectively reach the poor: indeed it was recognised that too often this is not the case. There is a need to directly demonstrate that the specific measures taken will be targeted to improving the water security of the poor. This led to the conclusion that approaches should be **demand-led**, where the poor themselves set the agenda and define the priorities.

There should be a focus on the **achievable**. This was particularly essential at the beginning, where achieving success to innovative approaches is the key to establishing their credibility. Grand master plans to address all the needs of all the poor were felt to be self-defeating and take too long to develop and be agreed and should be avoided.

All stakeholders have a role to play in providing for the needs of the poor. The principle of **common but differentiated responsibilities** was agreed in the Plan of Implementation of the World Summit on Sustainable Development. This was agreed to be a key concept that should be put into practice in pro-poor water management actions. It led to the conclusion that **partnerships** are a key to success.

There should be a focus on **opportunities** rather than problems. Water should be seen as a positive contribution to poverty reduction and improving water security rather than just the source of ill-health and social alienation that are key parts of poverty. Better access to water will improve the productivity of existing production and make many new livelihood opportunities possible. Improvements to water management can be a ladder out of poverty.

In most places, **investments** will need to be a core component of the actions, and indeed it is through the development of more appropriate modalities for planning and implementing investments that most changes can take place. This should include large infrastructure as well as small, localised investments. It is not major development per se that are problematic, but the process through which they have often been developed. The key is to consider all options, to plan, implement and operate infrastructure in different ways and to ensure benefit flows reach the poor.

Fundamental Requirements:

Although it was agreed that there should be a move to action now, a number of factors were identified that are fundamental requirements if these actions are to be effective. Where these requirements are not met then concerted actions to create the pre-conditions for success should be taken. The first and perhaps most essential condition for success is that there has to be a concerted **political will** to make changes to water management. This is essential for two reasons: improving the access of the poor to water resources may challenge the interests of powerful vested groups who benefit from existing forms of management and it may require substantial investments of money, institutional capacities and other resources that have to be diverted from other areas. The willingness to tackle powerful interests and to invest will only be available where an extremely strong case is made that these efforts are more important than other priorities.

Transparency of information and shared understanding are essential for creating partnerships and harmonising the potentials of different stakeholders to the common purpose of improving the water security of the poor. It is also a key to wise decision-making and building capacities. This

information should above all be available to poor people in a form that they can understand and that is appropriate to their particular situation.

The poor themselves must be key actors in all stages of pro-poor water management processes. Participation is an agreed mechanism and is indeed enshrined in many policies, but of course not everyone can, or will want to, participate in every decision. **Representative mechanisms** for the poor must be available, however, so that the needs, interests and priorities of the poor are clearly and forcefully articulated. Where such representative mechanisms do not exist then actions to create them are themselves a key objective of the process of pro-poor water actions.

There is a real need for **changed attitudes**: people must stop seeing the poor as victims or part of the problem and recognise them as creative adapters and the basis of the solution. At present, the poor are too often patronised even where they are involved. It needs to be recognised that they are often ingenious and creative in making the most of the few resources that they possess. They also have an intimate knowledge of local problems and opportunities that are the basis for defining locally appropriate interventions. This adaptive creativity has enormous potential and any actions must be structured to make best use of it.

The Approach

The agreement on the need for actions was reached early in the discussions of all of the groups. This led to fruitful discussions on what sorts of actions are needed. Many specific recommendations were made in the individual working groups that are included in the summaries of those group findings. The overall consensus on what should constitute the elements of an approach to pro-poor water management are presented here.

The importance of **partnerships**, institutions with the same goals but different roles, was emphasised in all discussions and is seen as fundamental to developing action-oriented approaches to pro-poor water management.

A **situation analysis** that provides a rapid assessment of water needs, policy impacts, institutional capabilities, opportunities for improving water security and the state of the resource base is essential. This should be completed rapidly, based on existing information and is only intended to orientate subsequent actions.

A phased, incremental approach is proposed that ensures delivery to meet immediate needs (and political buy-in) **but** through modalities that ensure sustainability and empower the poor to play a greater role in future decisions.

Equity, with a **gender** focus, is the core of the approach, both as an objective and as a key element of the methodology. This means that it is not something that should be an 'add-on' but should rather be mainstreamed into policies, procedures and actions.

The approach should also seek to mainstream with other **development policies** – PRSPs, decentralisation, reform of the government sector and others. This reflects the key issue that water should be seen as part of wider approaches to poverty reduction.

Capacity-development, to turn opportunities into realities, is a fundamental part of the approach. The direction of the capacity development should be to creating more flexible, responsive, representative and transparent institutions. Flexibility, including the ability to respond to new challenges that emerge as existing ones are overcome, is particularly important.

The approach should create and disseminate **knowledge** and ensure access to information for the poor in forms that they can understand and use. As part of this, the existing knowledge and capabilities of local communities should be integral to the assessment of problems and planning of interventions.

The approach will focus on **all aspects of water** in the lives of the poor, including all uses in the home and in productive activities as well as ecosystems protection. The patterns of water resources and their uses are very variable and the needs of the poor and opportunities for change vary over time, space and social grouping. The approach must be capable of responding to these diverse and variable patterns of need and opportunity. Within this, there is a need to balance social and geographical prioritisation, including strategic targeting to the poorest people or poorest places, or poorest people in the poorest places.

Decentralisation and subsidiarity, devolving rights, responsibilities and resources to the lowest appropriate level, are fundamental to the approach. Links must be made to existing reform policies and a strong focus on developing capabilities to meet devolved responsibilities is essential.

The approach will build from the bottom **but** operate at **community, policy and intermediate levels**. The situation analysis should identify the current state of capabilities at each level, channels of horizontal and vertical interaction and processes to develop more effective links between the different levels. Within this, it is recognised that intermediate levels, in local government and civil society, are often where capacities are poorest.

The approach should be opportunistic: what existing policies programmes and activities can be built on? Wherever possible, the approach should be to use such existing opportunities rather than attempt to catalyse new ones.

Pulling it Together

The discussions concluded with an attempt to consolidate the conclusions around a the development of a **rural water action programme** that recognises the need to prepare specific and funded programmes of actions to improve the water security of poor people. These should focus at the sub-national level – a district or group of districts. The size of individual programmes will need to be significant enough to have impact but not too large and unwieldy.

The basis of developing the programmes is **partnerships** that bring complementary expertise and experience to innovative approaches to reducing poverty through water management. At all stages, the goal will be to identify, plan and implement practical and achievable measures to enhance the role of water in poverty reduction.

The objective is to attempt to **put into practice** the ideas and principles on pro-poor water management that have been widely discussed but not yet worked through into specific programmes. It is only through such an action-focused approach that we will learn whether these principles are really implementable and what types of adaptations to existing approaches, procedures and capacities are needed to make them work. There will in particular need to be some bold innovations to implementation procedures but bureaucracy must not be an excuse for inaction. A pragmatic, common sense approach will be adopted whereby steps that can be defined are defined and obstacles are addressed as they are identified. This will require a willingness by all partners to be adaptive and responsive to needs as they arise. This obviously has implications for contracts and terms of reference, but again innovations will be found where necessary here.

The approach will be **demand-led**, with initially no assumptions about what problems and opportunities exist. It reflects the core empowerment objective of the approach, with the goal of giving poor women and men greater choices and the means and capacities to make these choices work. The key to success will be to develop institutional capacities through which different needs and options can be identified and turned into practical steps for implementation. This means that flexibility is a key characteristic of the approaches that should be developed.

Radical innovations are not needed in most cases. The challenge is to **scale up** what we already know works at more local levels. This in turn means a strong focus on the institutional processes and capacity building through which scaling up can take place and sustainability ensured.

Water security will include improving the reliability of service delivery, improved water quality, reducing vulnerability to hazards and establishing secure rights of access to water resources as well as water quantity issues. Social (including gender) and institutional issues are fundamental to the approach. Where relevant, actions to mitigate conflict between different water users will be included.

The programme will need to have an **incremental, iterative character**, with the first steps carefully defined around clear and implementable objectives that are planned and executed. The experiences gained will be carefully monitored and the approach adapted to reflect the lessons learnt from this. Flexibility is consequently a key capacity that will be structured into both programme procedures and the capacity development activities.

The approach should build from an **ecosystems approach**, in which all water flows through and uses of water within the ecosystems of the area are assessed and minimum flow requirements to maintain the integrity of the ecosystems are defined. Areas of particular biodiversity or conservation importance and areas of severe degradation would also be identified and specific measures to conserve the former and restore the latter would be included in the planning process. The subsequent approach to water management would be to ensure adequate water allocations to maintain the ecological integrity of the ecosystems.

A **livelihoods approach** will form the basis for identifying and planning options, based on increasing livelihood choices for poor people. In this, all aspects of water in the lives of poor people will be considered, including agriculture, harvesting fish, plants and other resources from aquatic ecosystems, livestock (including dairy), home trees and gardens, small-scale manufacturing and services. It should also reflect the need to ensure that **disaster mitigation and management** must be fundamental if the vulnerabilities that are such a core feature of poverty in many parts of the world are to be reduced.

The measures would not exclusively focus on water management, but would include **all measures** (such as land management, capacity development or improving access to inputs and markets) necessary to ensure the viability of the water-based livelihood opportunities. For example, better access to water may make dairy production possible, but turning this into income requires other expertise and resources, access to markets and so on.

6.3 Outputs from the Working Groups

6.3.1 Pro-Poor Water Governance

Chairperson: Liala Nahar Ikram

Facilitator: Allan Halla

Rapporteur: Sharif Uzzaman Chowdhury

Governance looks at the dynamics between STATE - SOCIETY - MARKET

What do we mean by Governance?

- Governance is about the manner in which political power is balanced, and concerns the administrative system and the “rules of the game” that affects us all.
- Water governance refers to the political, economic, social and administrative systems that are in place to develop and manage water resources and the delivery of water services at different levels of society (GWP definition).
- Effective governance for the poor requires systems of policy and decision-making that benefit (or at the least do not harm) the livelihoods of vulnerable people living on the edge.

Effective Governance is critical to attracting finance and better governance leads to better economic and social development and poverty reduction.

The working group was divided into 3 sub-groups related to governance, as follows:

- A - Policy, Legislation and Decentralisation
- B - Institutions, Regulation and External Governance
- C - Transparency, Accountability and Capacity Building.

Also it was recognised that there are key cross-cutting issues such as financial resources (particularly allocation of government budgets) and specific groups to target such as women, marginal groups etc. Moreover, it is important to empower people: the voice of the poor is an essential part of effective water governance.

A. Policy, Legislation and Decentralisation

- Need sector policies but there must be inter-sector POLICY CO-ORDINATION and if not one policy may contradict another and work against the poor. Dialogue is critical to policy formulation and it is important to get the PROCESS right to ensure poor voice heard.
- WATER USE RIGHTS should be explicitly pro-poor. Need to identify target groups and how to allocate resources to improve their access to water. Need to revise laws to give the poor PROPERTY RIGHTS and REDUCE BUREAUCRATIC obstacles so the poor are brought into compliance and the country can benefit from their natural entrepreneurial skills – provide a stepladder to economic self-help.
- Policies should include SHORT TERM BENEFITS for the poor not just wait for longer-term results and clearly identify the implications for allocation, cost and distribution.
- There are many policies that do not always get implemented. Whilst policy is necessary it is not sufficient and must be backed up by time-bound, funded and measurable STRATEGIES and actions.
- Genuine PARTNERSHIPS should be established for policy formulation etc with adequate representation and participation by the poor.
- Need to take care that donor driven policy formulation (which may be helpful and well intentioned e.g. on gender) is relevant to the country and not top-down. Must ensure HARMONISATION between donors and between donors and governments.
- Countries should establish and agree an INDICATOR of poverty so action can be targeted and progress on policies/strategies monitored.
- TARIFF structures should be reformed to maximise benefits for the poor with mechanisms to ensure the poor really do benefit.

B. Institutions, Regulation and External Governance

- Need Institutional REFORMS at all levels and need to understand better the roles of institutions and existing functions and change to make them user effective to help poor. Also, water people need to understand and interact with non-water authorities such as land-use urban planning, energy and industry.
- Central Government need to SHARE RESOURCES (and share power) with lower levels of Government, especially LOCAL GOVERNMENT – also with public sector and

communities. However, we need lots of capacity building for Local Government. Decision-making will then be at a level closer to the stakeholders/beneficiaries.

- Need to establish new or strengthen existing AUDIT mechanisms for institutions to ensure they are functioning according to rules and to reduce corruption. A system of checks and balances and means for conflict resolution should be established for development partners – including government agencies, private sector and NGOs).
- International financing institutions (e.g. multi-lateral banks) should change their own rules and find mechanisms so they can support DECENTRALISATION, e.g. fund legitimate local government / community directly as key partners of central government. Governments should also establish budgetary allocations to make decentralisation work – this should be recognised as beneficial to parties at all levels.
- Governments should work together with neighbouring countries for regional co-operation on transboundary waters - based on SHARED BENEFITS including non-structural aspects such as information sharing.
- Informal GRASSROOTS DIALOGUES on shared waters should be established across borders to establish good neighbourliness and foster understanding to add value to any formal processes.

C. Transparency, Accountability and Capacity Building.

- Access to quality INFORMATION is critical – this needs to extend to the poorer communities. Need public access to information (e.g. a Freedom of Information Act). It was proposed that this could also extent to an international convention on freedom to information and transparency. All audit and financial information of providers of water services (both public and private) should be made publicly available.
- Community based PUBLIC HEARINGS and dialogues should be held before any major projects/changes are made – these should be moderated and be held within easy access for the poor. SOCIAL IMPACT ASSESSMENT should be undertaken as an important aspect of effective governance.
- Need to CHANGE ATTITUDES to ensure sensitivity of administration and politicians etc. to understand better the needs of the poor (sometimes they think they know but do not). The mass media should be used to educate both poor and politicians – also first, workshops should be held to educate journalists about water issues.
- CAPACITY BUILDING must be done for the poor themselves so they can understand implications of process, consultations etc – so they ask the right questions.

WARNING:

There was concern that TRANSACTION COSTS should not be increased and care is needed that we do not create governance systems and processes that are too costly, do not unduly slow down or prevent ACTION. Also there was some concern that participatory processes may unduly raise expectations that cannot be fulfilled in the short term.

6.3.2 Improved Access to Quality Water Services - Domestic Water Supply and Sanitation

Chairperson: Q.I. Siddique
Facilitator: Belinda Calaguas
Rapporteur: Abu Salem Khan

At the recent World Summit on Sustainable Development, addressing water supply and sanitation gained additional urgency. A global agreement was reached on a sanitation target to halve the proportion of people without access to adequate sanitation, concurrent with other poverty reduction targets for 2015. The global target of halving the proportion of people without access to safe and affordable water by 2015 was also confirmed. This provided a sense of urgency to the discussions by the working group.

Members of the group came from nine countries including Bangladesh, Indonesia, India, Lao-PDR, Cambodia, Vietnam, Nepal, Maldives and Kyrgyz Republic. There was a mixture of professionals working with municipal government, national and international NGOs, external support agencies, academe and water ministries. All in all, up to 25 people participated in the workshop.

The discussions of the first day focused on the current situation in relation to water reform processes in the different countries, and identification of problems arising from these. The second day's discussions focused on what needs to be done in relation to these problems.

In all countries represented, reform of the water sector began in the mid-90s with the reform and development of water policies and the formulation of water strategies and action plans. The principle of demand responsive approach has been translated into guidelines for design and management of domestic water supply projects and programmes. In some countries, these guidelines are now complete and are currently being disseminated and implemented through the decentralised systems of government. Alongside water sector reform, the reform of local government as the key agency of government for the management of service delivery has produced a combination of challenges in ensuring services to the poor now facing the sector.

Specific targeting of services to poor people's needs

In the brief review of water sector policies and strategies, it was revealed that none of the current strategies or plans specifically addressed the needs of the poor. There were built-in assumptions to current plans that where a large proportion of a country's population were considered poor, that any plan or strategy to provide water and sanitation services would automatically also serve the poor. Participants identified some of the barriers the poor face in gaining access to services in light of the new strategies and policies:

Barriers relating to cost recovery:

- a) Where guidelines for capital cost contributions are inflexible, these discriminate against the poorest people. The poorest of the poor often live a hand-to-mouth existence, where cash is often unavailable, and time for livelihood activities and for getting food is precious. Contributions of free labour deduct from time for getting food and livelihood activities, and inflexible demands for specified levels of cash contribution are additional burdens.
- b) In the urban areas, connection fees are unaffordable to poorer sections of the urban population, unless there are flexible financial services targeted at poor people to enable them to afford the connection fees.

Barriers relating to capacity to demand services:

- a) In a demand responsive environment, capacity to make a demand and to get the demand heard and acted upon can become barriers to poor people's access. Demanding services requires resources:
 - access to information that services are available requires contacts,
 - ability to effectively communicate the demand to the providing agencies, especially where these agencies are physically distant from the communities requires time and money
 - organisation to ensure that the demand results in action by the providing agencies and by the community requires time, money and leadership skill
- b) Local government capacity to work with poorer communities. Where poor communities are located in far-flung areas or in more water degraded/water poor environments, the

requirements of local government capacity are even higher in terms of investments, time, tools, skill.

Genuine bottom-up participatory planning that involves the poor

The group believes that for services to begin to address poor people's needs, poor people themselves, especially women, need to be involved in planning these services. Where district level government is responsible for setting out the plans for water and sanitation service delivery, representatives of poor people need to be involved in the planning processes at district level. Bottom-up participatory planning will enable poor people's service requirements to be heard and included in the plans and budgets drawn up by district governments. This will require the following:

- a) Capacity, skills, tools and resources in local government (from village to district levels) to undertake bottom-up participatory planning and budgeting
- b) Capacity, knowledge, leadership, organisation and resources in communities to participate in the planning and budgeting processes.

Access to quality information

There is little accurate data on the state of water resources and the levels of water and sanitation coverage in many countries. Local governments who are now responsible for planning and managing services require quality information, disaggregated according to socio-economic and other parameters, to assist them in identifying the required investments necessary to serve their constituencies, and to ensure poor people are also served. This will help make local governments make the case for increased resources from national budgets for water and sanitation. This will help make national water ministries make the case with the finance and economic planning ministries and with donor governments for increased resources for water and sanitation

The public also requires access to quality information: to know what resources are required, the costs of infrastructure, how government subsidies are calculated and where they are targeted, the costs to the consumer, and the costs of not providing the services. This will enable advocates for poor people's water and sanitation needs to enter into informed public debate on the balance of costs to be borne by poor people.

On the basis of the discussions above, the group suggests the following for action:

1. Demonstrable commitment from governments and donors to address the water and sanitation needs of poor women, men and children. Action needs to be undertaken in the following areas:
 - 1.1 Targeting and prioritising areas where there are concentrations of poor people and where the water environment is poor/degraded. Poverty mapping as a tool to help with targeting.
 - 1.2 Undertaking a gender-sensitive poverty and social impact analysis of the new water strategies and policies, with results feeding into the reform of these strategies and policies, and into water and sanitation plans and budgets.
 - 1.3 Increasing resources for water and sanitation, with services to the poor prioritised in resource allocations.
 - 1.4 Better co-ordination amongst donors, in general, as well as specifically in resourcing services to the poor.
 - 1.5 Funding the processes of empowerment and advocacy. Advocacy at national, local and international levels for the water and sanitation priorities of the poor. This requires building new organisations (e.g., federations of water user committees), building new coalitions (between water sector and those directly working with the urban and rural poor, with women's groups, etc.), building advocacy skills amongst community leaders, organisations that serve the poor, and other champions of poor people's interests.
2. Building capacity for genuine bottom-up participatory planning
 - 2.1 Improving and strengthening skills, tools, methodologies used by different levels of local governments to facilitate bottom up and participatory planning which involves multiple

- stakeholders, including representatives of poor people themselves. Funds should be made available for building processes for participatory planning.
- 2.2 Building and strengthening knowledge and capacity amongst organisations of poor women, men and children, their leaders and advocates to be involved in service planning processes, budgeting, and monitoring implementation and budget disbursements.
 - 2.3 In urban areas, institutionalising participation and broad multi-stakeholder consultation in the monitoring and regulation of water and sanitation utilities.
 - 2.4 Building multi-stakeholder partnerships for involvement in planning and budgeting processes. These partnerships should involve planners, providers including NGOs and the private sector, and users of services, especially users from poor communities.
3. Better accounting of water resources, more accurate accounting of coverage levels, and costs of investments.
 - 3.1 Involve poor communities in mapping their water resources and coverage levels.
 - 3.2 Make the information accessible to the public, especially to poor urban and rural communities to enable them to participate with knowledge in the planning and budgeting processes.
 4. Energise a broad range of service providers, including the small-scale private sector to provide services to the poor, through providing flexible access to capital, and other business-development support.
 5. Support diffusion of alternative appropriate technologies such as rainwater harvesting, ecological sanitation to poor communities.

6.3.3 Improved Access to Quality Water Services – Food Security

Chairperson: V.V. Malla Reddy

Facilitator: Md. Sarfaraz Wahed

Rapporteur: Intizar Hussain

Participants: Over 30

Participants in both the sessions represented government departments, NOGs, International Organizations, and other research and development agencies. Having diverse backgrounds and experiences, participants enriched the discussions with interesting debates on various issues related to water, food security and livelihoods. This report provides an overview of the issues raised, problems identified, priority areas and actions suggested.

An Overview of Discussions, Issues and Outcomes

General

In relation to food security of the poor, development of domestic agricultural sector will be important to achieve food security and improved livelihoods of the poor. Some argue that food insecurity problem can be solved through free trade etc, the question arises: can low income countries afford to buy food by earning sufficient foreign exchange in other sectors?, even if so, will that ensure food security at the community or household level or intra-household level?

There seems to be general consensus that the issue of food security is complex, it is an outcome of interactions of several factors. The most immediate ones are (a) lack of access to means of production (e.g. land, water) or insufficient purchasing power by households; (b) unavailability of food; (c) inappropriate distribution; and (d) inadequate use of food at the household level. These causes are deep rooted into a set of other causes including (a) socio-economic and political environment (national policies and institutions globalization) (b) access to productive resources,

(c) natural calamities such as floods and droughts and (d) health and nutrition. Food security is not only an issue of security of having access to enough food-grains, it is about balanced diets, nutrition and health.

Mere availability of enough food at the global or national level will not guarantee that communities and households or individuals will be food secure. The problem needs to be addressed at various levels, national to individual level, considering various population groups (children, elderly, female).

Improved access to water by the poor, through effective management, helps enhance food security and livelihoods of the poor (through enhanced production, consumption of both food and non-food items, incomes, employment, and other indirect impacts) – lack of access mostly resulting from ill-management does the opposite – strong linkages on both sides – alleviation or perpetuation of poverty

We need to understand why poor or disadvantaged lack access to water. There are three situations (1) 'Physical' water scarcity; (2) 'Economic' water scarcity, and (3) 'Institutional' water scarcity (poor management, inefficient, inequitable and unsustainable use of water). Under the first situation, non-water related interventions will be needed to improve food security and livelihoods of the poor; second situation calls for more pro-poor investments in water sector; and the third situation calls for effective management of water through improved institutional arrangements.

Key Approaches

The approaches and actions to tackle the problem of food insecurity may be categorized into four major groups. These are the ***growth oriented approaches, the equity oriented approaches, the institutional approaches*** and the synergy of the three.

From the view point of growth oriented programs, the development of agricultural sector is inevitable, since the highest incidence and severity of poverty are found in rural areas, and most of the poor are mainly engaged in the agricultural sector. Agricultural development does not only play an important role for the overall economic growth, but also its indirect effects on employment are important.

From the equity perspective, it is noted that growth per se is not sufficient to alleviate poverty, unless its benefits are widely distributed through public provision and strengthening of social services-education, health, nutrition, and family planning. Such programs also offer the possibility of multiple benefits. From the institutional point of view ***institutional change*** is a precondition for the eradication of rural poverty and food insecurity. The experience of the past decade of development shows that unfavourable institutional environment restrain the ability of poor to participate and share in the benefits from the fruits of development.

The causes of food insecurity suggest that four major interventions can be used to improve food security. The first intervention should be to increase production, through improved technologies and institutions which influences food security by enhanced agricultural production. The small farm sector must be the centre of this effort. The second intervention should aim at improving the purchasing power of the poor by generating more employment opportunities and empowering the poor. The third intervention should be to facilitate exchange of goods and services by the poor. This involves creating an enabling environment for the poor to engage in market transactions as sellers and buyers of goods and services by the poor through effective policies and institutions. The fourth intervention involves infrastructure development such as the provision of irrigation facilities, developing the rural roads to access markets and provision of electricity.

Policies and Actions

Every body should have 'right to water and food'- basic human needs. Two types of interventions are needed to improve the access of the poor to water for enhancing food security– broad

interventions (for improved management of land and water resources...to increase the size of pie...poor and non-poor both benefit) – targeted interventions (to increase benefits to the poor). These interventions are needed at all levels – national, regional, community and household levels. Following are some of the policies and actions that are needed to improve food security through improving water security of the poor.

- More welfare/well-being per drop of water – move from more crop per drop or more jobs per drop to more welfare/well-being per drop of water.
- Promote equitable access to land, water and food
- Promote IWRM/ river basin management approach – sectoral approaches no longer generate desired outcomes; prioritize allocation of water to various sectors (domestic, agriculture, industry, and environment for sustainability)
- Use local wisdom/knowledge, promote technologies that are appropriate and indigenous
- Develop and improve legal and institutional frameworks- policies for ensuring security of food and water for the poor
- Incorporate gender issues into policies; undertake gender
- Enhance the role of private sector and markets in enhancing production and its equitable distribution
- Promote supporting measures (e.g. education, awareness, capacity building including of women)
- Prioritize geographic areas of focus – poor /least developed areas
- Promote research on understanding linkages between water and poverty to identify pro-poor interventions; undertake gender mapping in poverty studies, establish gender audits
- Develop partnerships to undertake these actions.

6.3.4 Pro-Poor Economic Growth and Livelihood Improvement

Chairperson: Nafisa Barot

Facilitator: Dirk R Frans

Rapporteur: Mujibul Huq

A Introduction

Both sessions of the working group were attended by around 30 people of which one third were female. The first day participants introduced themselves briefly explaining their involvement of water and poverty alleviation. The facilitator introduced the main elements of the livelihood framework and recalled how in the past economic growth had often benefited the rich and bypassed or even negatively impacted the poor.

The urgency of ensuring better access to water by the poor was highlighted as every day about 5.000 mainly poor people in Asia die due to water related diseases. During the conference itself in the host country Bangladesh, close to 2.000 people will die. Therefore the need for ACTION cannot be stressed enough.

During the first session, which focused on problems and coping strategies of the poor, participants presented examples of how in their respective countries lack of access to water affects poor people and how they cope. The findings are summarized in section 2.

The second day had a more forward looking perspective, focusing on suggestions for changes in policy and for action. Proposed action points also included suggestions on who might be involved in implementing these and indicated the kind of partnerships that might be formed. The summary of the proposals is given in section 3.

B Water related Problems and Coping Strategies of the Poor

Lack of access to water affects the poor in many ways, but they can be distinguished in ways that influence productive possibilities and those that influence re-productive side of people's livelihoods.

Participants mentioned two ways in which productive use of water, through irrigation, effect the poor. IDE mentioned a positive example of the use of the treadle pump, a low cost, small scale irrigation pump. About 2 million are now in use in Asia, yielding an average additional income of US \$ 100 per user per year. IDE plans to expand to 30 million and an average additional income of US \$ 500 per year in 15 years. Other participants pointed out that much of the mechanised irrigation equipment is expensive and out of reach of poor farmers. The richer farmers buy this equipment and if the poor want to irrigate they have to buy water from him. The poor are not in a position to bargain with the pump owner and are over charged and often humiliated in the process.

In other words, if the water supply technology is of a size appropriate to the poor then it can have a major positive impact on their livelihoods. If the technology is such that only the rich can afford and control the technology and access to water, then the poor benefit only marginally at best.

Concerning the re-productive side of access to water, that is drinking water and water for domestic use, participants mentioned many examples of how limited access to water negatively impact the livelihoods of the poor. The main mechanisms are as follows:

- Adult women spend much time collecting water from far away, limiting their income earning options;
- Girls who collect water may not be able to attend school;
- Lack of water leads to illness, resulting in loss of income and high medical expenses;
- Limited access to water means many poor people have to depend on rich neighbours, often leading to humiliating situation. In some cases this humiliation is so severe that households will continue to use contaminated sources to avoid having to go to the rich to ask for water.

Thus lack of access to drinking water and water for domestic use reduces the income earning capacity of the poor, while also increases their hardship and expenditure on coping strategies. This lack of access also limits the future choices of the poor, particularly women, as it curtails development of the girls involved in water collection.

Participants noted how in the past many water infrastructure projects were supply driven. Due to various inbuilt economic and social mechanisms the result was that the rich benefited most. In most cases the access for the poor was limited and the systems were not maintained rendering many unsustainable.

There is now a new generation of projects which is demand-driven, and indications are that if the poor are given a voice in their design and implementation, these interventions can indeed have a positive impact on the livelihoods of the poor.

A number of participants pointed out that sometimes donor and/or government policies negatively impact the poor. Two examples were given:

- In some project the beneficiaries have to pay a contribution to the capital investment upfront. While there is much to be said for this approach, blanket application without special provisions allowing access by the poor, often means poorer communities will not qualify.
- In many countries policies and programmes are focused on rural areas, overlooking the urgent need of the urban poor. These 'non-traditional' urban poor find themselves in a difficult situation, cut-off from the rural coping mechanisms that they were used to and without knowledge or access to modern technologies.

Therefore donors and governments alike must ensure that their policies do not inadvertently leave the poor worse off.

In summary the livelihoods of the poor suffer due to lack of access to water for both productive and re-productive purposes. The poor cope through hardship, forgoing investments in their future and therefore remaining trapped in poverty.

C Proposed Suggestions for Policy Change and Action Beneficial to the Poor

C.1 Proposed policy changes

Underlying policies are attitudes. Pro-poor policies must be preceded and accompanied by a change of attitude, that is a move away from treating the poor as objects in need of help. Attitudes should move towards recognising the poor as 'expert' in their own right and context. The poor must be seen as active participants in their own development, able to create wealth from their various assets and able to grow out of poverty making use of the opportunities provided by the market.

Throughout Asia States are producing country "Poverty Reduction Strategy Papers" (PRSP). While these papers have the potential to benefit the poor in many areas, including in ensuring better access to water, this is not automatically the case. If these papers are produced in the traditional top-down way by the non-poor, then the risk of irrelevance is high. PRSPs will only be relevant to the poor if their voices are heard and their needs and suggestions are included in the PRSPs. In other words, the PRSPs should be developed from the bottom-up.

Many participants pointed out that talk about policy changes may well miss the point. In many countries the policies themselves are basically fine, but the main problem lies with their implementation. It is therefore suggested that all policies should be complemented with strategies for their implementation, a time-bound action plan and continuous monitoring.

Participants agreed that pro-poor interventions requires true decentralisation and devolution. This includes not only responsibilities but also decision making authority and control over funding. At the same time this process has to ensure accountability of the organisations/institutions involved as well as transparency. The level of devolution will vary according to the context, but the principle of subsidiarity should apply, that is, decision making as close as possible to the direct stakeholders, the poor.

The poor will only be able to make optimal use of their rights and the facilities available if they know about them. In too many cases they are simply not aware of their rights and the facilities that they can avail from government, non-government and commercial sources. Therefore there is a need for widespread dissemination of information on the rights of people, particularly the poor and women, including information on which agency is responsible for what.

C.2 Proposed action points

To the poor Local Government Institutions (LGIs) are 'the government'. To be implemented pro-poor interventions must come down to that level and be 'owned' and implemented there. However, in many countries the LGIs are not equipped to fulfil this role and NGOs have stepped into the vacuum. Their experience relating to and working alongside the poor is crucial in getting the process right. Yet due to historic circumstances there is often competition and mutual distrust between LGIs and NGOs. There is a need for innovative collaboration between LGIs and NGOs..

Like LGIs, local communities too often lack the capacity to make best use of their rights, pro-poor policies and interventions. Therefore the capacity of the various interest groups at community level should be built, particularly of the poorest of the poor. In many countries NGOs have the experience needed to play a leading role, using appropriate tools and methodologies.

The talk about the poor suggest we know who they are, where they live and what makes up their poverty. Reality is different as the picture, let alone the basic facts and figures are scattered if not totally absent. Local government and communities, if necessary with the help of specialised organisations, should start gender sensitive poverty mapping and have mechanisms in place to update the results from time to time.

All development related actors need to be held accountable for their activities. Civil society groups, such as the media, consumer organisations, human-rights groups must take up the role of monitoring the activities of the key actors such as the government, NGOs and the private commercial sector.

The livelihoods of the poor are a complex reality of interrelated areas. While dissecting these livelihoods may serve some purpose at an academic or planning level, livelihoods will only improve if there is improvement in all these areas. Therefore activities in the field of water should not be confined to drinking water only, but all the various ways in which water impact the assets and resource base of the poor (fodder, fuel, fish, etc.) should be taken into account.

6.3.5 Capacity Building and Empowerment

Chairperson: Lilia O. Ramos

Facilitator: Jennifer Francis

Rapporteur: Mohammad Mozammel Ali

A total of 39 participants belonging to thirteen different nationalities of the Asia Pacific Region actively took part in the discussion.

The changing roles of governments from providers to facilitators imply that communities now have the responsibility to manage their own water resources. If communities are to manage these resources effectively, efficiently and equitably, the men and women of the communities must have a voice and choice in the decision making process. Having a voice and choice requires an understanding of the differentiated roles and responsibilities of women and men in the community, and recognizing that they do not have the same access to or control over resources and that work, benefits and impacts may be different for both groups. Understanding these roles also require attention to the complex relationship between productive and domestic uses of water, to the importance of participation in decision making, rights and obligations in management of resources and to the equitable distribution of costs and benefits from improved infrastructure and management structures.

Amidst arguments and counter-arguments, there arose a consensus on the simple definition of **empowerment** as “the ability of the community to assert its interest and needs in a situation of conflict”. It is the participation of every woman and man in the process of decision making which entails the right to choose from a list of alternative solutions. For this to happen awareness creation of the rights and obligations of communities, access to information and situation analysis would form the very first steps. Organization and mobilization of communities to form a collective voice and forum with the skills to negotiate would complete the process leading to empowerment.

A pre-requisite to empowerment is the need for capacity building to develop and expand the knowledge base, skills and application of tools to enhance the negotiation for political assertion. Some of the components of this capacity building were identified as:

- Information Management
- Training – in Finance and in Management
- Human Resources Development
- Situation Analysis and Action Planning
- Confidence Building
- Participatory Decision Making Process
- Communications

A Cautionary Note: The Management of Water Resources by communities does not necessarily exclude the role of the state. Using the notion of “self-management of water resources as a mode of empowerment” can result in burdening communities instead of enhancing their roles as

managers. The role of state is still critical for macro-level water resources development. In addition, institutional structures would be required to avoid transferring management of water resources to scattered/fragmented users.

The second day of discussions were focused on the policy and programming implications of capacity building and empowerment and concrete actions. A key element to taking the water and poverty initiative forward was the strong emphasis on the need for **operationalizing policy**. Essential pre-requisites seen to be non-negotiable are:

- Political will and commitment
- True people's participation throughout
- Increased investment for capacity building and empowerment actions

In bringing about action for capacity building and empowerment, the pivotal role of the community in partnership with local institutions and the government machinery was expressed. Conforming to this notion came the suggestion that the process of involvement is empowering itself. For this, decentralizing power structures at all levels would be essential.

After a threadbare discussion on all the possible aspects of the issue, the participations concluded with the following actions:

ACTIONS:

- Policy Analysis & Institutional Assessment on capacity building and empowerment to develop a strategy and time bound action plan. As many policies already exist and efforts already undertaken with communities, an analysis would enable identification of gaps and loopholes and lessons learnt. This would then form the basis for a new strategy and action to be implemented. Recommended body: A Multi-Stakeholder Committee;
- Capacity building of Water Sector Professionals (at all levels) and practitioners on Integrated water resources management. *Enhancing knowledge and skills in dealing with water in an integrated approach requires pulling together the different knowledge and capacities from both experts and community members. This can be strengthened through acquaintance to indigenous tools and techniques.* Recommended body: by Higher Education Institutes;
- Training of Trainers on gender mainstreaming at all levels. *Training is a continuous process, for changing conditions and circumstances. This warrants adaptation to and adoption of new tools and techniques. Trainers being trained on advances, in turn, will train the lower end users.* Recommended body: Higher Education Institutes/Networks;
- Creation of a meta-database of community based experiences / cases (gender/poverty disaggregated etc.). *Data are essential inputs for any proper planning. The information of experiences and achievements of communities are not articulated and recorded sufficiently. The data base could give impetus for sharing of information and replication of good practices from context to context.* Recommended body: by Govt in partnership with resources centres)

6.3.6 Disaster Prevention and Mitigation

Chairperson: Sharmeen S Murshid

Facilitator: Marshall L Silver

Rapporteur: Jalaluddin Md. Abdul Hye

The workshop had over 30 participants from different countries and with quite different professional expertise. About one-quarter of the participants were women, who provide significant and rich input into the deliberations.

Challenges and Distinctions

Initially, the group discussion focused on flood disasters, and how they affect the poor. However, the participants quickly adopted the broader term **water disaster**. The term water disaster includes all classes of water induced possessive and negative impacts on all classes of society.

- *Floods and drought (natural and manmade)*: Particular emphasis was put on manmade disasters by way of river flows across international boundaries. In the context of Bangladesh, 92% of river flood flow comes from outside the country in the monsoon season. On the other hand Bangladesh faces annual droughts due to withdrawal of river flows above the country during the dry season. A success story was cited from *the Indus Basin Water Treaty of 1961* between India and Pakistan which has kept Indus River water flowing to both countries even in the face of international border tensions and wars.
- *Degradation of watersheds*: Denudation of forests in upland catchments creates water disasters in hilly areas in the form of land slides, and in the plains in the form of increased flood water quantity that is concentrated in a shorter period of time.
- *River bank erosion and accretion*: Many poor people live near river banks that shift and change during the annual flood season. A large number of these poor people are made pauper due to their homes and properties being washed away because of this river erosion. For example in Bangladesh, about 10,000 ha of riverside land is eroded and 60,000 people are made destitute every year. On the other hand, the land building process from sediment accretion is very slow; and inequitable management of this new land is not sympathetic to the needs of the poor.
- *Ground water pollution*: Arsenic pollution in drinking water tube wells has created a water disaster for almost the entire population of Bangladesh. This is because tube well water is often the only source of reliable drinking water in most parts of the country.
- *Coastal disasters*: Coastal water disasters like cyclone induced storm surge, saline intrusion, land erosion from tide and wind waves, and lack of sufficient coastal flood water drainage due to natural and manmade causes were cited as a few amongst many water related disasters.
- *Dying rivers*: Rivers often die from siltation that closes off the river mouths and reduces the flow capacity of the river channel. Such siltation is a water disaster caused by reduction of the fresh water resource. For rivers that feed coastal areas, river dying causes increased salinity intrusion up estuaries into uplands making the water unfit for agriculture and human consumption.
- *Climate Change*: Global climate change effects like increased rainfall in the monsoon season, decreased rainfall in the dry season and sea level rise are events that increase the water disaster vulnerability of the coastal poor over continental sized areas.

The distinction of a disaster and its resulting impact depends greatly upon the vulnerability and the coping capacity of the society or group of people facing the hazardous condition. Disaster impacts are different for different groups: rich or poor; men or woman; children or the elderly; and urban or rural.

In terms of vulnerability, it was reported that poor people are increasingly becoming vulnerable to water related disasters. This is due to the poor being more and more forced to live in water disaster prone areas; and also with the poor adopting dangerous livelihoods that are often performed in water disaster prone areas.

On this same theme, several participants discussed that a major development problem is between rich and poor. It is often observed that major investment projects ultimately get into the hands of the rich, and often create little benefit for the poor. Bangladeshi participants however pointed out that when a majority of a country's population is poor - 85% for Bangladesh - almost all the water development projects somehow or other benefit the poor.

Generally, major disasters draw significant public attention from reports in the news media. But minor disasters, usually unreported in the media, can also have serious impacts for both large and small communities of people. Examples were cited from the village of Joyjoykanti in the Brahmanbaria District of Bangladesh, where people currently face a drinking water disaster due to abandonment of 98 out of 100 hand pumped shallow tube wells due to high crippling concentrations of arsenic in the groundwater.

There are many types of protection against the impacts of water disasters: preparedness, relief, mitigation and others. The choice to select between different levels and types of protection to alleviate the sufferings of the poor from water disasters is matter of debate; but the choice should in most cases be left to the disaster affected people to deal with.

Coping strategies for Water Disasters

In the discussion of coping strategies for water disasters most of the emphasis was put on the absolute need for political will, and the need for partnerships between different user groups and stakeholders. It was also agreed that large-scale investment is required to implement sustainable projects and programmes.

Based on the experience of the discussion group participants, successful water disaster mitigation requires significant levels of institutional and human capacity building; and a real, not imaginary participatory approach for project and program success. The approach must also be initiated at the lowest possible level of the affected population, with strong participation of all impacted stakeholders and of all involved power groups.

Another important conclusion was that water disaster mitigation can not be addressed as only ad hoc relief operations. Water disaster mitigation has to be mainstreamed into the development process; both for immediate relief and for medium term recovery. Gender vulnerability must also be given priority at all levels of the development process.

Policy Recommendations for Water Disaster Mitigation

Based on the background discussions presented above, the group participants developed a policy structure for water disaster mitigation through a dialogue on the following three key questions:

1. Where do we want to go in mitigating the impacts of water disasters on the poor;
2. Where we are now in mitigating the impacts of water disasters on the poor;
3. How do we get to the point of effective mitigation of water disasters on the poor

Where do we want to go in mitigating the impacts of water disasters on the poor

1. Use existing policies as much as possible, with focus on mitigating the impacts of water disasters on the poor;
2. All new development policies must consider all possible positive and negative impacts of water disasters on the poor;
3. In policy formulation, different effects of water disasters on man and woman need to be made separately;
4. Emphasis should be put on management strategies such as better coping mechanisms for all water disasters. Flood disaster mitigation should use less structural intensive

mechanisms such as controlled flooding, instead of more structural intensive methods such as massive dyke embankments;

5. More use should be made of a balanced combination of structural flood mitigation methods (embankments and flood proofing), and non-structural flood mitigation methods (forecasting, warning, capacity building);
6. Regional solutions and co-ordination needs to be developed. For international rivers, it is the downstream country that suffers the most. Experience with the *Indus River Basin Treaty of 1961* between India and Pakistan is considered to be a success story. River Basin Organisation (RBO) conventions, such as the agreement establishing the Mekong River Commission, can be a model for development co-operation among riparian countries;
7. There should be assessment of baseline conditions, the state of vulnerability and adaptation capabilities to water disasters as they exist now;
8. Good quality measurements systems for monitoring the hydrologic, meteorologic, topographic, social and economic conditions need to be in place to learn about how condition and scenarios change with time and location.

Where are we now in mitigating the impacts of water disasters on the poor

1. There is high dependence on capital intensive structural measures;
2. Policies are not formulated with focussed considerations of all possible positive and negative impacts on the poor;
3. True participation of all the actors is not yet successful; quite often participation takes place only at the beginning of some initiatives, but gets diluted or abandoned with time;
4. Communications between different actors and the poor is not effective both in terms of matters of communications and means of communication.
5. Policies are not sufficiently gender sensitive.
6. Participatory approaches are still really top down, although every one talks about participation being bottom up.

How do we get to the point of effective mitigation of water disasters on the poor

1. It is essential that water disaster mitigation be incorporated as a fundamental component of all developments initiatives, programmes and projects.
2. The participatory approach must start at the lowest level of partnership, and continue up to the highest level of partnership: this means local to national to regional. At the regional level, the partnership should be a River Basin Organisation. Further, all water disaster mitigation strategies must be multi-sectoral.
3. The fundamental starting point for effective water disaster mitigation for the poor is to develop the required Political Will.
4. Use must be made of the Ministerial Meetings at the 3rd WWF to generate the necessary political will.
5. More capacity and coping mechanisms, particularly for softer non-structural measures, must be in place at all levels of government and society. Capacity building must be

strengthened, especially at the District/Commissioner/Division administrative levels of government

6. More support, in terms of technical assistance and financial assistance, has to be directed towards local levels of government and society.
7. All approaches must be gender sensitive in actions, not only in words;
8. There must be quality assessment of baseline conditions, vulnerability and adaptation capabilities to water disasters as they exist now, and into the future;
9. High quality systems for monitoring hydrologic, meteorologic, topographic, social and economic conditions must be put in place to learn how water disaster conditions and scenarios change as new and better water disaster mitigation development is implemented.

6.3.7 Management of the Environment

Chairperson: Jayampathy Samarakoon

Facilitator: Ainun Nishat

Rapporteur: Reba Paul

About 23 participants based on geographical zones took part in the discussion.

On the first day of the workshop the participants identified a long list of issues concerning the management of environment and board strategies to address these concerns.

On the second day the participants reviewed the outcome of the first day and decided on four central issues (see below) to structure the discussions and to identify areas of action. These were used to filter the broad range of issues and linking environment with the central theme of the workshop Water and Poverty.

Subsequently discussions were guided to identify policy gaps, formulation of strategies and action plans, and finally identification of the actors. In doing this, a consensus was reached to remember three key words –‘Water’, ‘Poverty’ and ‘Environment’. Further, it was agreed that the issues should be related to poverty and water and recommendations should be realistic. The poor should be the central of any water policy and the policy should be gender inclusive. Ecosystems should be managed to reach various targets of the policy as the poor depend on natural resources, and they have the least control over those.

For presentation of the outcome, the participants agreed on the following format.

- Defining the “Goals/Objectives”
- Identifying the key issues for formulation of “Strategies”
- Formulating required “Actions”
- Identifying the “Actors”

Issue-1: Ecosystem approach to water resources management

Goals/Objectives: The objective should be to follow an ecosystem approach to water resources development.

Strategies: Understanding should be developed on the functions of the ecosystems, linkage within ecosystem, linkage between functions of the ecosystem and livelihoods, and limits of the ecosystem itself. Awareness should be created among all stakeholders on ecosystem approach. Gender should be involved in the management of ecosystem. A network should be set up for

protected areas. The degraded ecosystem should be rehabilitated and minimum stream flow should be maintained in the rivers.

Actions: Zoning should be prepared based on ecosystem. Basin wise planning and management approach should be developed and watershed management approach should be adopted.

Actors/Partners: Local Community should be involved. A basin wise institutional framework like Mekong River Authority should be developed to work. A network of resources users should be established.

Issue-2: Enabling Environment

Goals/Objectives: The objective should be to enforce appropriate rules/regulations/law related to environmental quality management.

Strategy: Appropriate policies and legal regimes, rules and regulations, monitoring mechanisms, standards and tools should be developed. The regulatory bodies should be strengthened. There should have provisions of incentives and penalties to enforce the rules and legislation to protect environment and EIA should be made mandatory for all water resources development projects.

Actions: Environmental monitoring and auditing should be followed. Environmental management tools and database should develop. Public-private partnership and awareness should be built up.

Issue –3: Use of Water as a natural resource base

Goals/Objectives: The objective should be optimal and conjunctive use of water resources

Strategy: There should be a basin and sub-basin wise assessment of resources. Evaluation of temporal and spatial variation of resource availability should be done and critical habitats should be identified.

Actions: Mapping of resources and their demand should be carried out. All critical habitats should be protected.

Actors: Partnership should be developed between government agencies, local government institutions and local communities

Issue –4: Mainstreaming gender concerns.

Goals/Objectives: The objective should be to integrate/ mainstream gender concerns in the management of the environment.

Strategies: The gender sensitive policies, plans and programmes should be developed and implemented. The necessary enabling mechanisms should be created for integration of gender concerns in environmental management. A gender sensitive constituency should be built up. Institutional and individual capacities on gender should be developed and necessary financial assistance for gender mainstreaming should be provided.

Actions: Existing environment policies, plans and programmes should be reviewed. A gender desegregated database as a tool for gender responsive planning should be developed. Awareness campaign on gender and development should be created. Gender sensitivity training and gender responsive planning are very essential. Gender should be a component of all environmental management programmes and projects. Gender information materials should be developed and translated them into local dialects. Gender focal groups should be formed whenever applicable.

Actors: Local communities, local government units, other government agencies and NGOs should be involved.

7 Plenary Discussions at the Multi Stakeholder Dialogue

7.1 Panel

Mr. ??? facilitated the multi stakeholder dialogue. The panel that answered questions from the participants, was made up of the following people;

- Mr. Sjef Ijzermans, Ambassador Royal Netherlands Embassy, Dhaka, Bangladesh
- Dr. Ainun Nishat, Country Director IUCN, Bangladesh
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[Chikoy – this list needs completing]

7.2 Questions and Answers

Q. There is much talk about water and poverty and the poor lacking access to water. What can be done for areas where there simply is very little water.

A. In such places there is no alternative than to bring in water from places where it is more abundant. An example is an island in Indonesia where one part has almost no rainfall and the other has a lot. Though it expensive, a channel was dug to bring water from the water abundant to the water scare area.

Q. Is the operational cost of many water project not too high?

A. Operation and maintenance cost is basically the responsibility of the beneficiaries. High O&M costs can be due to inappropriate design and therefore the appropriateness of the design must always be checked before approval. Sometimes the high cost of O&M is due to unnecessarily expensive overheads in government delivery systems. Such overheads must be reduced. O&M cost can often be lowered by enabling beneficiaries to contribute in the form of labour. In the case of water interventions for the poor subsidies may temporarily be justified in the short term to allow the poor to improve their livelihoods and after that start contributing to the cost of O&M.

Q. Why is there a need to target water at the poorest?

A. There are examples from all over the world of how the access of the poor to water does not automatically increase if interventions are done for communities in general. This justifies a special effort to target the poor.

Q. How do governments view the role of NGOs in the water sector.

A. In Bangladesh the national government sees the NGOs as important partners with a positive role to play. However, local government institutions often have a less positive view of NGOs. The National Water Policy stipulates people's participation in water management. NGOs have much experience in this field and can also get involved in monitoring government activities. In Indonesia there are too many NGOs who do nothing but criticise and shout. There are others who quietly do their good works. The government will decide with which of these different types of NGOs it will work. In Sri Lanka the NGO sector is not so well developed. Many NGOs are donor-driven and therefore not so useful. In most countries it is agreed that it is basically the government's task to provide basic needs. In many countries in Asia the government system is not well developed and there are many niches of the population that it cannot reach. NGOs are well placed to reach these groups, but they must themselves be transparent.

Q. There have been so many conferences on various topics, including water and the arsenic problem, but there is no action on the ground. Would it not be better to stop having these expensive get-togethers and spend the money on improving access of the poor to safe water?

A. Many share the concerns behind this question. We need to get down to action points and put them on the web for all to see. We must also share responsibility for implementing those same action points.

Q. The much talked about 'full cost recovery' is very difficult in case of the poor. What can be done about this?

A. Full cost recovery is indeed not always possible, but we should not be too concerned about this. If the investments are appropriate they will over time result in an improvement in the position of the people, which will lead to profit and recovery will be possible via for instance taxation. Cost recovery requires good governance and if there is a crisis in governance this involves lack of transparency and accountability. Such a context does not stimulate cost recovery. However, instead of spending more money and time on analysis of the problem, let us invest in good examples and in partnerships that work. From the private sector perspective full cost recovery is possible and indeed necessary if the water supply systems are to become sustainable. What will be needed is some cross-subsidies with the richer beneficiaries paying a little extra so the poor can be charged less. There are examples of governments pushing the full cost recovery principle too far. Drinking water supply to the poor has such major social and long term benefits that the cost recovery should at least for the initial period be given less priority.

Q. What examples are there of how the involvement of women in policy making makes a difference?

A. In Sri Lanka women's involvement in policy making is relatively low, nevertheless the country has achieved much in the area of social indicators. NGOs should collaborate more with the government to ensure that women's voices are heard and included in policy. In Dublin the involvement of women was one of the four principles but 10 years on actual implementation is still low. What is needed most is that women should have a voice in designing water interventions so that they suit their needs.

Q. What can be done to ensure the water needs of slum dwellers that are ousted from their slums?

A. The problem is that issues of slum dwellers are usually dealt with by a department that is different from the one that deals with urban water supply. Coordination between these is necessary to ensure that slum dweller needs are taken care of.

Q. I hear nothing about political commitment, but can the problems that we talk about be solved without political will?

A. Without political will it is indeed not possible to solve these water problems. Countries are ruled by politicians and without their commitment we would get nowhere. Politicians must be involved at both national and local level. The 2nd WWF in The Hague stressed the need to involve politicians. In Sri Lanka a special effort was made to do this and to by-pass the bureaucratic system that filters out much of the information. The government of Bangladesh, like many others, is now preparing a PRSP which shows that political will.

Q. How can we ensure a water-related safety net for the poor?

A. Providing a safety net is a typical task for specific departments within the governments system. In Bangladesh that is not the Ministry of Water Resources. When it comes to drinking water the government is basically responsible as it is a basic need and human right. That does not apply to water for other things such as irrigation.

Q. How can the barriers created by the use of almost differences languages in the various sub sectors of Water be overcome?

A. This problem is really one of lack of coordination as well as of competition. Countries must develop their own policies in this respect as donors only come in as guests.

Q. Should the government not be responsible to ensure that all agricultural land is used to grow crops 3 times a year?

A. No, as there may not be a need to grow 3 crops a year. Furthermore it is up to the individual land owners to decide what they do and do not do, not for the government to dictate that from the top.

Q. In Nepal, participation is mandatory, but nevertheless the poor are left out. What can be done to change that?

A. NGOs could play a role in ensuring that the poor are organised and their voices heard. Also decentralisation of decision-making is needed so that it is done closer to and guided by the people on the ground including the poor.

Q. How can donors ensure the accountability of the governments that use their money?

A. ADB has two types of funding, grants and loans. ADB is fully responsible for grants and accountable for the way it is spent. However loans are the responsibility of the governments and they are accountable for how it is spent. However, in case of financial mismanagement ADB would take up the matter with the government concerned. The Netherlands have a similar system but ensures that even in case of loans there are checks and balances. If it turns out that things are not done as agreed we need to decide what to do. Often this results in tighter procedures being developed. One of the bottlenecks is the outdated secrecy laws which need urgent reform so that the utilisation of public money can be investigated and made transparent.

Q. In some parts of Indonesia the rights of indigenous people are violated by outsiders, for instance by loggers who clear the forest and muddy the water resources of downstream indigenous communities. It has taken a long time but recently there has been success in ensuring that the customary rights of the indigenous people are included into the regulatory framework.

A. This example shows that it is possible to bring about change, even if it takes a long time.

Q. Examples such as from Manila show that it is possible to implement a pro-poor water and sanitation programme through the private sector. Would it not be possible for donors to finance such local initiatives directly instead of through the national government?

A. Both ADB and the Netherlands government have capital funds that are accessible to local authorities. These loans are not concessional but ensure that the extra risk is covered. The private commercial sector would value access to funds for organizational activities among the poorest of the poor, which could be spent via NGOs. Mechanisms could be developed along the lines of output-based contract.

Q. We hear that mainstreaming gender would solve many problems. What would you, donors and governments, need to assist in mainstreaming gender?

A. In Bangladesh the mainstreaming of gender is definitely on the agenda, for instance in the National Water Policy. However, as yet not much has been achieved on the ground. The SSWRDSP, financed by the Netherlands and ADB, proposed to develop a gender analysis and strategy. However, the implementing agency LGED proposed that this be done for the whole organisation, not only for that particular project. ADB's procedures, and those of the Bangladesh government, require that in project design the needs of women and children be looked at in depth. The private sector has mainstreamed women and makes sure their needs are taken into account in the design of the schemes. However, this requires a supportive institutional framework.

Q. Why have the organisers of the workshop not made proper arrangements for transport, accommodation etc. for participants from within Bangladesh but outside of Dhaka?

A. This question will be passed on to the organisers.

Q. Gender is not only women, but also includes men. Why do we not ensure that the voice of poor men is also heard?

A. The policies of the ADB, and the Bangladesh NWP reflect this observation.

Q. Why do we not take water as an entry point to invest in other aspects of the livelihoods of the poor?

A. The Bangladesh government is moving in that direction for instance by ensuring that if BWDB does a project it is accompanied by supporting activities in the field of for instance fisheries. The Netherlands government is wary of broad and integrated projects because they have turned out to be not very effective. The Dutch see the need for simultaneous developments on a number of fronts, but believes that it is better not to spread resources and efforts too thinly.

Q. Do we have sufficiently gender sensitive monitoring systems in place?

A. Not always but it is worth doing because both poor women and men suffer. We should not go for blanket quota or percentages but focus on people's roles. In drinking water and sanitation the women of course play a much bigger role than men. In water management for flood control the men have more responsibilities.

Q. How can indigenous stakeholders be involved more in developing the regulatory and legal system?

A. This detailed question can best be discussed over lunch.

Q. Women should be encouraged to do new things, not more of the old traditional stuff.

A. Agreed!

8 The Way Forward: to Kyoto and Beyond

Presentation by Professor John Soussan, Coordinator of the Water and Poverty Initiative

Honourable Minister, Ladies and Gentlemen, Friends

It is with great pleasure that I make this presentation at the end of what has been a hard working but extremely rewarding three days of this workshop. I have already presented to you the summary of the findings of the working groups and other sessions of the workshop. In this session I wish to share some thoughts on how we learn from the many important insights that our discussions have provided to us and move the Water and Poverty Initiative forward to the 3rd World Water Forum in Kyoto in March next year and beyond.

I emphasize the beyond, for it is only at this workshop that the value of continuing this initiative after Kyoto has become apparent. We only started the initiative in February this year, when a group of individuals and organisations joined together at the Asian Development Bank headquarters in Manila to plan a joint effort to ensure that the issue of improving the water security of the poor was placed at centre stage in Kyoto. At that time and until now we avoided taking any decisions on whether to continue the partnership beyond Kyoto until a time when it was clear that it would serve a specific purpose.

We started out thinking that there would be considerable challenges in advocating for the types of change to thinking and actions needed to improve the contribution of water to poverty reduction. During the last few months, we have found that this is far from the case, and indeed that we were pushing at an open door. This conclusion has been strongly reinforced during this workshop, where it has been clear that the ideas and experiences that we have been discussing resonate with all delegates. In particular, the challenge to place poverty reduction at the centre of our goals in managing water resources and services has been strongly endorsed in all presentations and discussions. Above all, the discussions have focused on the need to put principles into action, to move quickly to develop specific, funded and effective programmes that will demonstrate that, through partnerships, we can all together work to reduce the scourge of poverty through water management.

This strong message is one that we have heard and endorse. Indeed, as the ADB Vice President Mr. Shin announced in his speech in the Inaugural Ceremony, we have already been moving in this direction. The many insights gained during this workshop will be of tremendous value in guiding this process. We have been working hard to respond to the views expressed here and ensure that the activities of the Water and Poverty Initiative carry the message from this workshop forward. I wish to share with you some thoughts on how this will be achieved.

Strengthening the Framework

The first area of development will be to continue to strengthen the Initiative's Thematic Framework. We will be working with the Initiative partners to develop a series of short, sharp papers that further develop this framework. There will be papers on the seven working group topics and we have carefully recorded the main findings of these groups to help guide these thematic papers. We had already identified a further topic, on water, poverty and health. In addition, the need for two further papers has emerged from the discussions in this workshop: one on mainstreaming gender and one on how to reach the poorest of the poor. These papers will be drafted over the next few months and circulated to stimulate further discussion and help disseminate our findings to a wider audience.

The Secretary General of the United Nations, Mr Kofi Annan, has established 10 Task Forces to develop strategies for achieving the Millennium Development Goals. One of the Task Forces is on water and the Water and Poverty Initiative has been asked to join with this Task Force to help in particular to identify strategies through which water can contribute to achieving all of the development goals, not just the one on drinking water and sanitation. This includes goals

connected with health, with gender equality, with food security, with sustainable ecosystems and with poverty reduction where water can play a tremendous role in reaching the targets. We have all signed up to these targets. The findings of this workshop will help us to identify how our work can directly contribute to reaching them.

We have already established strong links with other initiatives being undertaken in preparation for Kyoto, including dialogues on governance, on water and climate and on water, food and the environment. The outputs of this workshop will be instrumental in guiding the form that such links should take.

Building on Experience

In developing this Initiative, we started from a belief that there were many existing experiences of pro-poor water management that form the basis for concerted actions to improve the water security of the poor. We have set out to learn from and capture these experiences to identify what will work where and why. The basis for this is a series of case studies, including many presented during this workshop as well as others from other regions of the world. These case studies are living up to their promise and giving us insights into the practical realities that need to be taken into account in any programme to address the water needs and opportunities of poor communities. The list of case studies will be expanded to include many new ones presented during the workshop. We will be synthesising these case studies to draw out generic lessons, focusing in particular on the issues of scaling up and transferability. This synthesis will be presented in Kyoto, along with a selected range of the different case studies that are being prepared.

Moving to Action

The workshop has strongly endorsed our belief that the time is right for the Water and Poverty Initiative to move to action. We need to start working together rather than just talking together. The point of departure for identifying what actions should be taken will be to build on existing programmes. There are many such programmes, including for the ADB the Water in Asian Cities programme that has been launched jointly with UN-Habitat and the Netherlands Government. The Water and Poverty Initiative will help guide this programme to ensure that it effectively targets the major and growing challenge of ensuring access to water and sanitation for the urban poor.

We will seek similar ongoing initiatives at the national and local level: existing policies and programme that have the potential to both learn from and inform the Water and Poverty Initiative. For example, one of the case studies presented during the workshop was on the development of coastal policies here in Bangladesh. It is targeted to the poor and based on an approach that seeks to take advantage of opportunities and reduce vulnerabilities. This example has all of the characteristics that we would look for in a pro-poor approach. It is hoped that the Water and Poverty Initiative can contribute to its development.

Rural Water and Poverty Action Programme

In addition to building on existing programmes, it is intended to launch a new initiative that will be the basis for moving to action under the Water and Poverty Initiative. The ADB intends to work with a group of partners to develop a new programme that targets the rural poor, to complement the existing Water in Asian Cities Programme. This initiative, a rural water and poverty action programme, will work at regional, national and local levels to channel substantial investments to where they are needed and to provide a structure that puts into action the principles that we all agree upon. The approaches developed under the programme will have the following characteristics:

A demand-led approach, where no assumption is made about what sort of interventions are needed and a process is put in place where poor communities themselves are defining priorities and designing interventions.

Poverty-reduction targeted: we too often assume that what is good for water or for more general development is good for the poor. All too often this is not the case. The programme will ensure that any actions taken are based on a specific and verifiable benefit for poor communities. This will be reflected in the development of indicators and monitoring and evaluation systems.

Action through partnerships: the principle of common but differentiated responsibilities lies at the heart of the Plan of Implementation agreed at the World Summit on Sustainable Development held in Johannesburg. This principle is one that many agree with but that needs to be worked out in practice. We strongly agree with the idea that all of us have a role to play, whether we come from governments, the private sector, NGOs and other parts of civil society or the international community. The programme will build partnerships of stakeholders who have different capabilities. It will include implementers, funders, facilitators and knowledge resource partners.

Capacity development will lie at the heart of the programme, with this essential to ensure sustainability and empower the poor to take control over the decisions that affect their lives. But the capacity development needs to be approached in an innovative way. In particular, the need for capacity development must not be allowed to stand in the way of actions that are clearly needed to address the many immediate problems that the poor face. People are being trapped in poverty and, extreme cases, even dying because of the lack of water security. The time to act is now. The programme will consequently seek to develop approaches that do meet these immediate needs, but do so in ways that build capacities for the future.

It is intended to announce a programme of actions in Kyoto, including the signing of a number of letters of understanding at national and international levels. These agreements will be on specific actions that are funded and that will be followed up after Kyoto. The hosts of the 3rd World Water Forum have from the outset emphasised that Kyoto is about commitments and actions. Through the rural water and poverty action programme, the Water and Poverty Initiative intends to demonstrate that both commitments and actions are possible.

Raising the Profile:

The final area of further development up to Kyoto and beyond is to spread the word and raise awareness of the types of actions that can improve the water security of the poor. A number of specific activities are in progress to achieve this.

The ADB has a Water Awareness Programme. This programme will work closely with the Water and Poverty Initiative to prepare and disseminate a range of advocacy media to raise awareness of water-poverty relationships.

The Water and Poverty Initiative has been asked by a group of sponsors to prepare a Water Development Partners Panel of high profile, senior international figures. This panel will meet the day before the Ministerial Conference in Kyoto and will discuss, in a multi-stakeholder dialogue, water and poverty. The panel will make a presentation to the Ministerial Conference, thereby ensuring that the outcomes of the Water and Poverty Initiative sessions in Kyoto influence the conference proceedings.

The final challenge for raising the profile is to engage the politicians who are the key decision-makers in so many water and poverty areas. The Initiative will invite senior politicians from around the world to be water and poverty ambassadors, to raise the profile of pro-poor water management and to participate in Initiative sessions in Kyoto. It is hoped that these ambassadors will include a number of politicians from the countries present in this workshop.

Ladies and Gentlemen, this workshop represents an exciting and important milestone in the development of the Water and Poverty Initiative. The many insights that we have gained will be used to direct the Initiative towards a more action-oriented approach and to negotiate partnerships for Kyoto and beyond that will put the principles upon which we all agree into action. I thank you for your attention.

9 Closing speech by the Minister, Engineer L. K. Siddiqi, Ministry of Water Resources, Government of the People's Republic of Bangladesh

Mr Chairperson - Secretary of the Ministry of Water Resources
Mr Toru Shibuichi, Country Director, ADB,
Distinguished delegates from home and abroad,
Ladies and Gentlemen

As-Salamu Alaikum.

It is a pleasure for me to be with you in the closing session. I understand that you had a very interactive sharing of knowledge and experiences from different countries on the issues of Pro-Poor Water Governance, access to Quality Water Services, Economic Growth and Livelihood Improvement, Community Capacity Building and Empowerment, Management of the Environment, and, Disaster Prevention and Mitigation. I also understand that you had interesting debate on various issues. It's also a pleasure to note that, in the course of this workshop, good practices on water resources management were also debated and highlighted. This would definitely promote action at the local level to ensure the attainment of water security, especially for the poor and strengthen the network of development agencies on water sector for poverty alleviation.

In the inaugural session, our Hon'ble Prime Minister Begum Khaleda Zia raised a few issues of concern - one of which was protection of the poor from water related hazards like flood, erosion, tidal surges, drought, pollution etc. I hope you have taken those into consideration and incorporate in your final findings and recommendations.

She also mentioned about the interaction and cooperation between the government agencies and non-government organizations. I find that this workshop has paved the way forward to achieving this goal and has done a great job in bringing the government agencies and NGOs further close. I hope such cooperation would continue to flourish in the future.

I hope that this workshop has achieved its goal and will be marked as an important milestone on the road to the Third World Water Forum at Kyoto.

Ladies and gentlemen,

Before I conclude, my thanks to Mr. Faisal Ahmed Choudhury, Secretary, Ministry of Water Resources whose great leadership could bring this workshop to reality. My special thanks to Mr. Toru Shibuichi, Country Director, BRM, ADB for his close monitoring of the progress of the preparatory works and supporting the workshop in a great way. I also thank the ADB Head Quarters, Ambassadors of the Netherlands and Denmark for their support to the workshop. I also thank the participants from home and abroad who have taken great effort to join this workshop and bring its success.

Finally, I thank the organizers - WARPO, BRAC and other government and non-government organizations for working very hard to make this great event a success. You have done a nice job.

Allah Hafez
Bangladesh Zindabad

Appendix A: Workshop Program

22 September, 2002, Sunday

08.30 – 10.45 Morning Session

- 08.30 - 09.15 Late Registration
- 09:30 - 09.40 Workshop Overview
- 09.40 - 09.55 Presentation on the “Water and Poverty Initiative” by Mr. John Soussan, ADB
- 09.55 - 10.25 Listening to the poor: presentation by Gonoshastha Kendra on water supply, sanitation and health
- 10.25 - 10.45 Presentation on “Flood and Drought: Problems faced by the poor” by BWDB

11.00 - 12.40 Inaugural Ceremony

- 11.15 - 11.20 Arrival of the Hon'ble Chief Guest
- 11.20 - 11.25 Recitation from the Holy Quran
- 11.25 - 11.35 Welcome address by Secretary, Ministry of Water Resources
- 11.35 - 11.45 Address by Mr. Faruq A. Choudhury, Adviser, BRAC
- 11.45 - 11.55 Address by Mr. Myoung- Ho Shin, Vice-President, ADB
- 11.55 - 12.05 Address by Hon'ble State Minister for Water Resources, Bangladesh
- 12.05 - 12.20 Address by Hon'ble Minister for Water Resources, Bangladesh
- 12.20 - 12.40 Address by Hon'ble Prime Minister of Bangladesh

13.00 - 14.00 Lunch

14.00 - 17.00 Afternoon Session

- 14.00 - 16.00 Workshop 1: Water Security Problems & Coping Strategies
(Tea/ Coffee: 15.30 – 16.00)
- 16.00 - 17.00 Plenary to report back on working group outputs
- 1900 Cultural Function & Dinner (by invitation)

23 September, 2002, Monday

09.30 - 12.30 Morning Session

- 09.30 - 9.50 Keynote presentation by Ms. Shireen Lateef, ADB
- 09.50 - 10.10 Case Study: Coastal Policies in Bangladesh by DG, WARPO.
- 10.10 - 10.30 Community drama: Poor communities' perception of water and poverty
- 10.30 - 11.00 Tea/coffee
- 11.00 - 12.30 Multi-stakeholder dialogue on pro-poor policies
- 12.30 - 14.00 Lunch

14.00 - 17.00 Afternoon Session

14.00 - 16.00 Workshop 2: Pro-Poor Water Policies. Themes are as follows–

1. Pro-poor Water Governance
2. Improved access to Quality Water Services - Domestic Supply
3. Improved access to Quality Water Services - Food Security
4. Pro-poor Economic Growth and Livelihood Improvement
5. Community Capacity Building and Empowerment
6. Disaster Prevention and Mitigation
7. Management of the Environment

(Tea/ Coffee: 15.30 – 16.00)

16.00 - 17.00 Plenary Session to report back on working group outputs

24 September, 2002, Tuesday

9.30 - 12.30 Morning Session

9.30 - 12.30 Parallel sessions on Water and Poverty Case Studies

Parallel session on Poverty and Flood

(Tea/coffee: 10.30 - 11.00)

12.30 - 14.00 Lunch

14.00 - 17.00 Afternoon Session

14.00 - 14.20 Keynote presentation - by Mr. Anukularmphai Apichart, Chairperson, SEATAC

14.20 - 14.40 Case study: SEWA, Gujarat India

14.40 - 15.00 Drama by community group of BRAC

15.00 - 16.00 Summarize outcomes so far and identify discussion themes for final working groups
(by Initiative Team)

16.00 - 16.30 Tea/coffee

16.30 – 17.30 Closing Session

16.30 - 16.50 Final Presentation: Actions to Kyoto and beyond

16.50 - 17.30 Chief Guest: Minister for Water Resources, Bangladesh

25 September, 2002, Wednesday

Field Excursions Projects for the field excursions and details will be worked out later. All sites are to make a poster display in the conference venue and delegates will sign up on a first come - first served basis.

26 September, 2002, Thursday

09.30 - 16.00 Smaller follow-up meetings, including the 2nd meeting of the Steering Group on the Water and Poverty Initiative to review the Initiative's progress, determine the follow-up to Kyoto and consolidate links with other themes and regions.

Appendix B: Case Study List and Abstracts

Case Study Name	Country	Author/Organization
Micro-Irrigation For Income Generation In Asia	Bangladesh, India, Nepal	IDE
Water and Poverty Linkages in Mountainous Areas: Highlights on Proposed Nepal Case Study	Nepal	Madan P. Pariyar
Water And Poverty In Nepal	Nepal	A.N. Mishra and D. Bhattarai, DWIDP
Water And Poverty: A Case Study on the Development of Central Water Supply System in Rural Areas in Vietnam	Vietnam	Mr. Truong Minh Ngoc, National Institute for Urban and Rural Planning-MOC
Voices Of The Invisible: A case study of Understanding gender equity and power of decentralization leading to sustainability, prosperity, justice and equity	India	Nafisa Barot
Water And Poverty: A Case Of Watershed Development In Andhra Pradesh, India	India	V. Ratna Reddy and Y. V. Malla Reddy
Water, Health And Poverty Linkages: A Case Study from Sri Lanka	Sri Lanka	Sarath Abayawardana and Intizar Hussain, IWMI
Restoring Community-Based Water Systems To Alleviate Poverty In Southern Baluchistan, Pakistan (under preparation)	Pakistan	NRSP
Mountain-River-Lake Integrated Development Programme, Jianxi	Chine	Dajun Shen, CRWIHR
DWASA Initiative for the urban slum dwellers in making piped water provision	Bangladesh	Dhaka-WASA
Gender, Water And Poverty Experiences From Water Resource Management Projects In Bangladesh	Bangladesh	Begum Shamsun Nahar
Case Studies On Agricultural Water And Poverty Linkages In Large And Small Systems: Some Lessons For Action	Asia	Intizar Hussain and Mark Giordano
Allocating Water For Home-Based Productive Activities In Bushbuckridge, South Africa	South-Africa	John Soussan , Sharon Pollard, Juan Carlos Perez de Mendiguren and John Butterworth
Water And Poverty Linkages In Mountainous Areas: Highlights On Proposed Nepal Case Study	Nepal	Madan P. Pariyar
Opportunities for Integration of Forest User Group (FUG) and Water User Group (WUG) at Catchment Level: Case Study from Nepal	Nepal	Sabita Thapa , Ashok Singh , Dhruva Pant and Madhusudhan Bhattarai
Water: the key to rural sustainability	India	Ganesh Pangare and Vasudha Pangare, WWI
Privatization of Metro Manila's Water Supply and Sanitation Services	Philippines	?
Impact Evaluation Of Water Supply And Sanitation Projects: Philippines	Philippines	Asian Development Bank
Mama-86 And The Drinking Water	Ukraine	Prabha Khosla, GWA

Case Study Name	Country	Author/Organization
Campaign In The Ukraine		
Universal Sanitation – Thailand Experiences	Thailand	T.V. Luong, Ongart Chanacharmongkol and Thira Thatsanatheb
Drainage Improvement to Protect Food and Livelihood Security of the Poor and Vulnerable Urban Households: An experience gathered from the Mapping of Drainage Networks of four Pourashavas	Bangladesh	Abdur Rahman Bhuiyan, IWM
The Role of the Department of Public Health Engineering in Poverty Reduction	Bangladesh	DPHE
Implications of National Water Management Plan towards Sustainable Poverty Reduction in Bangladesh	Bangladesh	Giasuddin Ahmed Choudhury & Md. Shahjahan, WARPO
Implications Of National Water Management Plan Towards Sustainable Poverty Reduction In Bangladesh	Bangladesh	Giasuddin Ahmed Choudhury, & Md. Shahjahan, WARPO
A Case Study of Groundwater Development in Southern Cambodia (summary only)	Cambodia	JICA
Water deficit –Challenges and issues-Sri Lanka as a small island Country (summary only)	Sri Lanka	Prabhath Patabendi
Environmental Protection and Poverty Alleviation at Baixi Reservoir	China	Dajun Shen, CRWIHR
Piped water supply to urban poor settlement in Dhaka: a closer insight of DSK model (proposal for study)	Bangladesh	Dibalok Singha, DSK
El Alto - Innovative approaches and partnership (short)	Bolivia	Ondeo Services
Manila: Bayan Tubig Project (short)	Philippines	Ondeo Services
Water Policy and Food Security Towards A Research Agenda	World-wide	Yoginder K. Alagh
Discussion Meeting on Independent Review of 1996 Ganges Water Treaty	Bangladesh	CARDMA, member of IUCN, The World Conservation Union and Bangladesh Water Partnership Network
Water For Food Security For The Poor	South Asia	Intizar Hussain and Eric Biltonen
Agricultural Water and Poverty Linkages: Case Studies on Large and Small Scale Systems	India, Pakistan, Sri-Lanka	Intizar Hussain, IWMI
Women and World's Scarce Resource: Water	Bangladesh, India	Hasna J. Moudud, Women for Water Sharing
The Study on Groundwater Development for Altai City in Mongolia	Mongolia	JICA
Integrated Resources Management Programme in Wetlands	Sri Lanka	Ministry of Environment and Natural Resources/Arcadis-Euroconsult
Gender & Poverty Approach in NEWAH	Nepal	NEWAH
The Project of Livelihood Improvement in East Sumba of East Nusa Tenggara,	Indonesia	By JICA and IBEKA (NGO)

Case Study Name	Country	Author/Organization
Indonesia		
Addressing Water and Poverty at the Grassroots: A Case Study of Area Water Partnerships and Women and Water Networks in South Asia	Pakistan	Indus Delta AWP
The Pilot Project of Water Supply and Sanitation Improvement in Lao PDR	Laos	? (PPT file not accessible)
River Bank Protection in the Lao PDR	Laos	Bouaphanh TEDDAVANH
Rural Water Supply and Sanitation Initiatives to Eliminate Poverty in Lao PDR	Laos	Nouanta Maniphousay, Ministry of Health, Lao PDR
Water Resources of India	India	A.D. Bharadwaj
Rainwater Harvesting in Lucknow	India	Utthan (File not accessible)
Community Empowerment And Involvement Experiences with Scaling up Sanitation of Soozhal - A Network of 7 NGOs, in collaboration with WaterAid India	India	WaterAid India
Sri Sathya Saidrinking Water Supply Project, Ananthpur District(A.P) India	India	Sri Sathya Sai Central Trust
Building Partnerships to Serve the Urban Poor: How the Urban Poor of Manila West Zone benefited from it?	Philippines	Alain Mathys
The Manila Water Company, Inc.	Philippines	Loida S. Dino
A Tale of Safe WatSan Thrust: Community-managed WatSan Programme	Bangladesh	NGO Forum for Drinking Water and Sanitation
Ground water pollution, increased impoverishment and a search for people's solution	Bangladesh	Sharmeen Murshid, Brotee
Rural Development Focusing On Flood Proofing In Bangladesh	Bangladesh	Md. Zahangir Alam, LGED
IT in Good Governance : Late Monsoon Flood 2000	Bangladesh	Emaduddin Ahmad, IWM
Water and Poverty : Impact of Flood Control Drainage Irrigation(FCDI) intervention on Women	Bangladesh	Sultana Afroze, SSWRDSP
Water Logging Problem in the Noakhali Area of Bangladesh	Bangladesh	Abu Saleh Khan, IWM
Water and Poverty, RDA-Bogra	Bangladesh	?
Rice-fish culture in FCD/FCDI projects, and its impact on pro-poor economic growth and livelihood improvement in Bangladesh	Bangladesh	Khondokar Helaluddin Ahmed, BWDB
Capacity Building and Empowerment of the Community for Provision of Rural Safe Water and Sanitation	Bangladesh	VERC
Ground water pollution, increased impoverishment and a search for people's solution	Bangladesh	Sharmeen Murshid, Brotee
Coastal Polders in Bangladesh: Management by Communities	Bangladesh	Md. Saeedur Rahman, BWDB
Water and Poverty Initiative: An ambitious beginning to secure WATER JUSTICE for	Bangladesh	Dr. A. Quyyum Khan and Dr. M. Kabirul Islam. BUET

Case Study Name	Country	Author/Organization
all		
Water and Sanitation Initiative for Urban Poor	Bangladesh	Rokaya Ahmed, DSK
Overview of Flood Damage Flood as Global Issue	Bangladesh	IFNet
Monitoring, Implementation and Maintenance of Existing and Future River training Works of Control of erosion	Bangladesh	Kazi Iqbal Hassan, IWM
Cyclone Surge Modelling in the Coastal Area of Bangladesh	Bangladesh	M Mahboob-ul-Kabir & Jalaluddin Md. Abdul Hye
IT in Good Governance : Late Monsoon Flood 2000	Bangladesh	Emaduddin Ahmad
Women in Pro-Poor Policy-Planning Water Issue of Bangladesh, (A Case Study: Experiences of Women Participation in NWMP Preparation Process)	Bangladesh	Md. Shahjahan, WARPO
Strategy for Water Sector Projects in Respect of "A National Strategy for Economic Growth and Poverty Reduction"	Bangladesh	Giasuddin Ahmed, WARPO
Rural Piped Water Supply- A long Term Sustainable Solution for Arsenic Mitigation?	Bangladesh	Abdul Motaleb, SDC-WATSAN Partnership Project
Watsan Partnership Project Briefing	Bangladesh	Watsan Partnership Project
Arsenic Contamination of Drinking Water in Bangladesh	Bangladesh	IDE
Brazamul-Bhiti Khal Flood Control And Drainage Subproject	Bangladesh	SSWRDSP
Affordability Of Small And Marginal Farmers To Pay Irrigation Service Charges In Bangladesh	Bangladesh	Nityananda Chakravorty, BWDB
Action Research on Micro-credit Financing for Water Supply and Sanitation Services	Bangladesh	Quazi Ahmad Faruque, NGO Forum for Drinking Water Supply & Sanitation
Effects of Performance of Canal System in Ganges-Kobadak and Pabna Integrated Rural Development Projects on Poverty	Bangladesh	IWMI
Water Poverty Nexus in Rural Bangladesh – A Case Study	Bangladesh	M. R. Kabir and Islam M Faisal
Impact of Arsenic on Rural Poverty in Bangladesh	Bangladesh	Chowdhury Mufad Ahmed, LGD, GOB
Poverty Assessment in Khulna-Jessore Drainage Rehabilitation Project	Bangladesh	CEGIS

Appendix C: Bangladesh Coastal Zone Policy and Livelihoods Case Study

The coastal area of Bangladesh is an active delta, rich in water and land resources. The area is also one of high risks to natural and man-made calamities. The area is characterised by a constantly changing geographic and geomorphologic situation. In this region landownership is more skewed than in other parts of the country. There is a relative absence of government and NGO institutions and services, with little integration among those present. The law and order situation is often poor with the elite firmly in control of the economic, social and political spheres of life. The poor are socially and politically marginalised. While some parts the natural resource base, such as the mangrove and other forests, have been irrevocably damaged by human intervention, the major part the resource base is still intact and able to support sustainable development in general and poverty alleviation in particular.

In the last decades the coastal zone has seen economic growth along with some reduction of the extent and severity of poverty. The preconditions for this were created by the water-management, security and transport enhancing infrastructure developed by the government. The commercial sector and NGOs have made use of these new conditions by speeding up development of the natural and human potential of the coastal zone.

To have a maximum poverty alleviation impact, coastal developing should be a process rooted in the simultaneous enhancement of livelihoods and reduction of multiple vulnerabilities. To be effective the Integrated Coastal Zone Management policy under development will have to be based on a process rather than a blue-print approach. It should focus on three crucial points; facilitate coordination among the various actors, complementing the structural with non-structural measures and ensuring more equitable benefit distribution. The ICZM policy must be accompanied by a phased, evolution-type implementation strategy and time-bound action plan.

1 DESCRIPTION OF CASE STUDY AREA

1.1 Physical setting

The major part of the coastal zone is the active delta of the three largest rivers of Bangladesh, the Ganges, the Jamuna (also known as the Brahmaputra) and the Megna. The coastal area borders the Bay of Bengal and has three distinct geographic sections, the Sundarban mangrove forest in the south-west, the very active delta in the central south and the narrow coastal strip along the Chittagong and Chittagong Hill Tracts area on the east.



The case study area, polder² 55/1 belongs to the very active delta in the south-central area of the coast. Geographically and socially the island and sub-district of Galachipa, part of Pathuakhali district, is representative for a large part of the coastal zone. Until the mid 60s the island, like most of the other islands in the delta, was little more than a fertile mud bank, interspersed with an extensive network of natural cannels. Although the land was only a few feet above the normal high tide, the rich water and land resources had already then attracted many people from other parts of Bangladesh.

² The Dutch word “polder” is now part of the vocabulary of the Bangladesh water sector. It refers to an area enclosed on all sides by an embankment with in- and outlets to control the water inside the embanked area.

1.2 Historic setting

In November 1970 a cyclone hit the area which cost the lives of up to 500,000 people (see Box 1: Empoldering: People's Perceptions). A few years before that the government decided to embankment the coastal islands through the predecessor of the Bangladesh Water Development Board (BWDB). The aim was to protect the people and their property from cyclonic surges and create better conditions for agricultural production by reducing intrusion of saline water and improving drainage of rainwater. In Galachipa the work started in 1967 and was completed by 1977. "Polder 55/1", as it is known, protects an area of 10,600 ha. Older people recall the immediate and positive impact of the polder on their lives, including the poverty alleviation impact (see Box 2: Empoldering and Poverty Alleviation).

However, in the 80s the quality of the embankment and the drainage structures started to deteriorate. Security went down as the river eroded parts of the embankment. Water management, and with it agriculture in the polder, suffered. Further-more changes in agricultural and fisheries technology meant the infrastructure no longer provided for the needs of the population.

In the early 90s the BWDB took up the rehabilitation of polder 55/1 under the Systems Rehabilitation Project (SRP). Major components were the rehabilitation of the infrastructure and addition of many new, relatively small structures, to cater for the new demand for irrigation inlets to grow rice in the dry season. SRP started new institutional arrangements to ensure that in- and outlet structures would be operated as per the demand of the farmers and to ensure preventative maintenance.

At present, early on in the new millennium, the situation in Polder 55/1 remains dynamic. As in the whole of Bangladesh rice production is no longer as profitable as it used to be. Farmers are therefore shifting away from high input rice crops such as irrigated *Boro*. At the same time the profitability of dry season crops and fish has gone up, thus changing farmers' choices and to some extent the water management needs.

Box 1: Empoldering: People's Perception

Memories of the November cyclone of 1970 are still fresh and alive. Mr. Siddique, 53, of Dakua village in polder 55/1, recalled: "I had just got married when the storm surge hit our village. My wife, I and other family members took shelter in the corrugated iron house of a rich neighbor. In no time the house was full of water and the walls started to collapse. My wife clung on to me but suddenly a wave separated us and drove us out of the house. I managed to grab hold of a branch of a tree and hung on to it all night. I still do not know how she survived. In the morning, when the storm stopped and the water receded, I found my wife. She was unconscious but survived because her saree got caught around a tree. However, I never found my mother nor two of my brothers".

The cyclone that hit the area in 1970 had a surge height of up to 9 meters with a wind speed of 200 km per hour. The affected area was reduced to rubbles within a few hours time and up to 500,000 people lost their lives.

The general perception of the people about the polder is very positive. According to them the polder changed their lives and the overall situation of the area dramatically. The risk of getting inundated or washed away by a tidal surge is now virtually zero. None of the cyclones and surges since 1970 created much damage in polder 55/1. The security of life and property against cyclone and tidal surge is seen as the most remarkable contribution of empoldering.

The construction of polder also induced other changes, the most positive ones mentioned by the people are:

- Security to crops and livestock
- Better conditions for new crops (*boro* rice and betelleaf)
- Improved year round road network leading to access to markets, new avenues of employment such as transport and higher enrolment/attendance in schools

Negative impacts of empoldering that people mention are:

- Restricted water flow in the internal channels leading to stagnant water and breeding grounds for mosquitoes
- Dry season scarcity of water, particularly for domestic use, and pollution of the little water that is available
- Loss of capture fisheries

People point out that some of these negative impacts were not there in the beginning. They came about when the new system was not management properly and the infrastructure started to deteriorate.

Around the case study area, as in other parts of the coastal zone, very lucrative shrimp cultivation has taken off. In some adjacent polder the whole area is already under shrimp cultivation, in others half. In almost all cases the shrimp business is firmly controlled by a few powerful elite and local farmers have no option but to 'lease out' their land to the shrimp business, often with negative impacts on them and their lands.

1.3 Water resources

Because the coastal zone is a delta, the water resources are considerable. The most visible resources are the rivers. Over the last few decades the salinity of the river water has steadily increased, mainly because of a reduced inflow of sweet water in the dry season. This has increased the salinity of the land and the ground water. The rivers provide an easy means of transport as well as a variety of fisheries resources. The Bay of Bengal features key spawning grounds as well as rich off-shore marine habitats.

The rivers and internal channels are usually government owned land (called "khas" land). Nevertheless many farmers with land adjacent to the channels have appropriated the land and/or water resources of the channel for their private use. In line with the prevailing law, the Ministry of Youth and Sports leases out stretches of channel for fisheries.

Some parts of the coastal zone have low lying areas, called "beels". These used to produce a wide variety of common resources such as reeds, aquatic plants, snails and fish, which were important resources to support livelihoods of the poorer sections of society. In many places over-drainage and encroachment has reduced the size of these *beels* and common access, beneficial particularly to the poor, limited.

The quality of the ground water varies. In some areas the shallow 10-30' top layer is sweet, followed by a layer of saline ground water that can extend up to several hundred feet. The deep water layers are again sweet. Ground water is used for drinking and domestic use, but not normally for irrigation as sweet river water is available for part of the dry season.

Box 2: Empoldering and poverty alleviation

Local people say that poverty in polder 55/1 has declined. In the pre-polder situation only one rice and some *Rabi* crops were grown. Often intrusion of saline water destroyed the crops. Construction of the polder stopped saline water intrusion and also created conditions for a second rice crop. People say these changes first triggered overall development and poverty reduction in the area.

The accretion of land also helps to alleviate poverty. In Galachipa district yearly accretion is around 40-60 ha. The accreted lands are used for grazing cattle and produce local varieties rice, creating employment for many poorer households. Officially this land is distributed among the landless households, but given the socio-political structure of the region, many of the allotment holders can not establish their ownership rights over the land.

Local people say that the safety net programs of the government (i.e., food for works, food for education etc.) have a positive impact on the life of the poor. This is the case even when it is acknowledged that the programs are not free from corruption. Furthermore, government resettlement programs such as 'Adarsha Gram' and 'Asahrayan' make significant impacts on the life of the poorest of the poor. In Galachipa sub-district 3750 families received a home and homestead plot under these programs, as well as some supports for income generating activities.

Finally the impact of non-governmental organizations (NGOs) on poverty alleviation is often mentioned. Starting with the Grameen Bank, which launched its program in early 80s, presently there are over a dozen of NGOs working in the region. They work on various social and economic issues, but micro credit is an integral component of their programs. National level NGOs such as Grameen Bank, BRAC and ASA have large micro credit programs and these three NGOs cover roughly 45-50,000 poorer households in Galachipa sub-district. Much of this credit goes for petty trading, rearing livestock, rickshaw and van-puling, buying of fishing gears and boats, pond aquaculture and a limited amount to farming.

1.4 Water related vulnerabilities

The major vulnerability related events in the coastal area are cyclones (major ones in 1970, 1985, 1991), riverbank erosion, increased water and soil salinity, increased drainage congestion inside polders and the damage to land, crops and trees due to salt water shrimp cultivation.

The coastal belt also suffers seasonal vulnerabilities. In the monsoon and post monsoon season drainage congestion is often a problem. This is caused by poor operation and/or maintenance of outlet structures, silting up of channels, construction of roads without culverts and blocking of channels with cross-dams to make ponds for fisheries. In much of the coastal belt people now have access to tube wells for drinking water, though coverage, particularly in the newly inhabited areas, is less than elsewhere. In some parts of the coastal area, particularly in Noakhali district, the tube well water is contaminated by arsenic. Drinking this water exposes people to a high risk of cancer and other diseases.

While tube wells are used for drinking purposes, ponds and channels are still used for washing, bathing and feeding cattle. At the end of the dry season most water bodies dry up. In others the water level gets so low and the contamination so bad, that the water is no longer usable. This results in acute increased health risks for both humans and livestock.

The *Aus* and *Aman* rice crops depending on the uncertain rainfall during the pre and post monsoon season. In Polder 55/1 SRP built infrastructure to provide supplementary irrigation but the infrastructure has not been maintained and is no longer used.

1.5 Perceived trends

There is a general consensus that poverty in polder 55/1 has declined. The construction of polder is seen as an important contributing factor, increasing security of life and property as well as employment opportunities for poorer sections of society such as the landless.

The people's opinion, confirmed by scientific measurements, is that salinity in the coastal zone is on the increase. Two reasons are mentioned, a reduced inflow of sweet water from the rivers at the end of the dry season and the expansion of shrimp cultivation in polders. Crops and people suffer from this salinity.

There is consensus that poor operation and maintenance of polder infrastructure has led to drainage congestion. In polder 55/1 this trend has been aggravated by blocking of drainage channels for fish cultivation. As a result *Aus* and *Aman* yields and production has decreased.

Initially water management basically aimed at increased agricultural production. With the profitability of rice production decreasing over the years and demand for fish and shrimps increasing, there is now in many areas a growing conflict between these different uses. A small but very powerful group often controls the very profitable shrimp and fish production. As a result of these conflicts, the vulnerability of the poorer sections of society has increased. Overall, the patterns of change in polder 55/1 show that new vulnerabilities emerge as actions to reduce existing vulnerabilities and wider development trends take effect. This dynamic process needs to be reflected in pro-poor policy development.

LOCAL WATER CONTEXT

2.1 Local Institutions

In most of the coastal belt the informal village power structure is the single most important institution. This is particularly the case with new land and until such time as the area is officially recognised and brought under the official administration. This recognition can take a number of years and until that time local power brokers rule.

Bangladesh has a number of political parties and these are well represented in the coastal area. Though technically political parties are formal institutions, at local level they function closer to the informal power structure. The case study suggests that control over local resources is often more important to the power brokers in the area than party politics. To secure and control access groups of different parties forget about their differences and unite.

The Union Parishad (UP) is the lowest elected body in Bangladesh and deals with issues that directly affect local people. Elections for the UP are keenly contested. Traditionally local elites occupy most UP seats. From 1997 the UP has 3 seats reserved for women and a few are elected directly to general seats as well. UP Chairman and members protect factional and/or private interests (see Box 3).

Until the mid 1980s few NGOs were active in the coastal zone, but since then their number and coverage has increased. In Polder 55/1 there are both national NGOs, such as ASA, BRAC and the Grameen Bank, and smaller local NGOs and internationally funded activities such as DAINIDA's water supply and sanitation program. The consensus is that NGO activities have helped to reduce the severity and extent of poverty.

In many parts of the coastal zone, including Polder 55/1, private commercial business is now well established. Agricultural inputs such as seeds, fertilizer and pesticides are widely available, though often too expensive in the eyes

Box 3: The Elite Dominating GoB Institutions

In rural Bangladesh economic power and political power are often mutually convertible. However, as the following examples from polder 55/1 illustrate, in the coastal zone the rural rich use their economic/political power to such an extent that it actually undermines the basic governance structure.

In Galachipa sub-district there is much newly accreted land, producing rice and *Rabi* crops. However, over the last 5-6 years these lands are being converted into shrimp ponds, at times without the consent of the legal owners. The shrimp cultivators are all rich and politically well connected. The small and marginal landowners tried to resist this process of expanded shrimp culture, but failed. A few years ago they made an appeal to the sub-district administration for their help. The Upazila Nirbahi (Executive) Officer (UNO) agreed with their demands and with the support of the police demolished some of the shrimp ponds giving the landowners back control over their land. The rich shrimp farmers objected complaining to higher authority against the UNO. They brought out a *zaru michil* (procession with broom) to have him removed. While demonstrations continued the elite used their high level political connections to secure the transfer of the UNO. Given the coalition of forces the UNO was transferred. Since then shrimp culture in the area continues unabated, with much of the profit siphoned off by a few outsiders.

This incident is not an exception. During March 1998 to May 2002 (i.e., over a period of 4 years) 5 UNOs served in this sub-district. Of them only one served in this station for slightly over two years while the others served between 3 to 11 months, instead of the normal 3 years.

The second example concerns the allocation of 44 low lift irrigation pumps by the Department of Agricultural Extension (DAE). Farmers can apply for pumps to the DAE and the allocation is decided by the Sub-district Council. Initially these pumps were solely used for irrigating *boro* rice. However, the pumps are now all used for draining out water to harvest shrimp and fish. Since this is against its prescribed use and jeopardize possibilities for growing crops, the DAE objected to this (mis)use. The fishery lobby, supported by UP Chairmen (many directly or indirectly involved in shrimp cultivation), did not support DAE's viewpoint in the Sub-district Council. With support from the department of fishery, they pursued the UNO to overrule the clause that low lift pumps are to be rented out for irrigation only. It was decided that pumps could be given to whoever ask for it without raising any question on the purpose. Since this decision the pumps are all used by shrimp cultivators.

of the farmers. The commercial sector has invested heavily in road and river transport, contributing to overall development of the zone.

In its Fifth Plan the GOB identifies the coastal zone as neglected and sets goals to rectify this. The effectiveness of government agencies in coastal areas such as polder 55/1 has been limited, however, reflecting both poor co-ordination between different agencies and the problems of staffing posts in what are regarded as remote and low prestige areas.

2.2 National Policies

As of early 2002 the government is in the process of developing an Integrated Coastal Zone Management (ICZM) policy and strategy. The Water Resources Planning Organisation (WARPO) is the lead agency in this process which is due to be completed by 2005. The approach being adopted in this process of policy development reflects radical new thinking about the role of policy in development and the types of approaches that are needed if goals of reducing poverty and protecting vulnerable people are to be achieved.

Over the last decade, management objectives for the coastal zone have moved beyond the prescriptive use of plans, laws, and administrative modalities, that emphasised a sectoral approach, to a more unified one that addresses the coastal system as a whole. In 1999, the Government of Bangladesh, supported by a number of international donors, started to develop a distinctive approach to the management of the coastal zone. Basing the analysis on earlier work in Bangladesh, and specific assessments in Asia and further afield, it aimed at a really integrated approach that reflects the needs and interests of all stakeholders and the zone's special challenges.

The overall approach focuses on the integration of development and disaster management policies and activities, in response to the priorities of the communities that are experiencing them. The coastal zone is characterised by many factors that limit development potential as well as diverse threats from natural disasters. These have tended to be considered separately but it is now realised that whilst natural disasters curb sustainable development, a strong development-based programme will both lessen the impact of disasters and hasten the post-disaster recovery process. It also provides the basis for poverty reduction in the coastal area through the creation of a wider range of sustainable livelihood opportunities for poor people.

This process would be based on the harmonisation of existing institutions and a process of subsidiarity, where decisions are devolved to the lowest appropriate level. This is in line with the move in Bangladesh to decentralization, democratisation and institutional integration. It does not mean that every decision and action is taken at the purely local level: some issues are national in character and need strong national inputs; many issues require the integration of a number of different levels. The key to ICZM is to ensure that the appropriate people are taking the right decisions, in a timely fashion, in order that effective implementation has a chance of success.

This approach is reflected in the first GoB Policy Paper on ICZM in September 1999, which is the accepted policy framework for coastal development in Bangladesh and as such provides a context within which coastal policy-livelihoods relationships need to be analysed. This paper built on the analysis of the donor mission discussed above (Soussan *et al* 1999) to identify the issue of inter-departmental co-ordination as a major challenge in coastal areas: *“development problems do not occur departmentally; they appear in a complex web of interrelationships needing concerted efforts by more than one agency”* (GoB 1999, page 1).

The paper recognises that this is a diverse and dynamic area that is nevertheless unified by the range and complexity of vulnerabilities and development challenges that face this zone: *“the other special feature of the coastal zone is its multiple vulnerabilities”* (GoB 1999, page 11). A range of environmental hazards (both shocks such as cyclones and trends such as erosion, mangrove destruction and saline intrusion) are identified as the focal point of the development challenge of the area, but the paper also recognised anthropogenic vulnerabilities such as poor access to

markets, institutional weaknesses and poor service provision as characterising many parts of the coast.

This analysis is brought together in the definition of ICZM:

“ICZM offers a means of balancing the competing demands of different users for the same resources and of managing the resources to optimise benefits....it is an effective framework for dealing with the conflicts arising from interactions of the various uses of coastal areas.”
(GoB 1999, page 10).

The paper goes on to list the range of issues that an ICZM programme should address, with these issues including a range of natural hazards, resource opportunities, social and institutional constraints and development principles such as sustainability and participation. A specific and important feature of the note is the clear decision **not** to establish a special coastal development agency, but to rather base ICZM on **harmonisation** of the policies, programmes and capabilities of existing institutions. This means that effective institutional processes for this harmonisation are pivotal to coastal development.

The development of the coastal policy in Bangladesh also needs to be seen in relation to policies in linked sectors. In 1998 the government issued its first National Water Policy. This calls for an integrated approach to water resources management as well as active involvement of direct stakeholders in all stages of the process. The National Water Policy gives the highest priority to supplying clean and safe drinking water. Major efforts have been made since the 1980s, but in recent years these have been undermined by the discovery of arsenic in many drinking water tubewells.

The 1999 National Agricultural Policy aims to make Bangladesh self-sufficient in food. All 18 specific objectives apply to the coastal zone, which is not classified as a special agricultural zone. The policy does advocate a special program for crops suitable for the coastal zone, as well as projects to store tidal sweet water for minor irrigation. The policy recognizes the export earning potential of shrimp cultivation but also the possible environmental impacts. However, it does not mention the conflict between agriculture and shrimp cultivation although the policy does mention the need to combine crop and fish culture and prevent water logging. The policy advocated “land use zoning” which may be a way to deal with the shrimp issue.

The 1998 National Fisheries Policy gives much importance to coastal and marine fisheries. The policy aims at export over and above self-sufficiency, with quality rather than quantity being the bottleneck. The policy aims at combining rice, fish and shrimp cultivation, and this may lead to conflicts over water logged areas. The policy advocates caution to ensure that shrimp production does not damage the mangrove forests. Finally the policy advocates a ban on marine fishing by trawlers in water of less than 40 meters depth. However, presently most marine fishing is done in this area.

2.4 Livelihood patterns

This policy framework, and especially the newly-emerging coastal policy process, aims to directly address the vulnerabilities that confront poor coastal communities. How well does it reflect the distinctive livelihood patterns of coastal areas? The stability of people’s livelihoods depends largely on their vulnerabilities and the resources that they depend on. In the coastal zone the following main livelihood patterns can be distinguished.

The large absentee landowners are the main local power brokers. Their livelihood pattern is one of constant adaptation to the most profitable economic activities. Many have left the agriculture sector and moved into other activities. With access to institutional capital, fisheries and business expertise, the international market and the political power structure, they have found shrimp cultivation a golden opportunity to get rich quickly. The negative environmental impacts of their activities do not affect them as they live elsewhere.

For large farmers who still live in the coastal zone, most often inside a polder, agriculture has become less profitable due to rising cost of inputs, including labor, and stable output prices, particularly for rice. These large farmers see the potential of shrimp cultivation but also its negative impact and many face the dilemma of what to do. Some have moved into shrimp cultivation while others are still continuing with farming and some others have moved into other sectors such as transportation (often in conjunction with farming).

Polder 55/1 has a diminishing number of small and marginal farmers as well as tenants. It is quite likely that the same applies to most of the coastal zone. Existing input and output prices, the lack of control over water levels, increased salinity and drainage congestion have made their small and marginal farms economically unviable and in some cases unproductive. Many have sold their land off and diversified their livelihoods into non-farming activities. Households send their sons to the city or abroad. Tenant farming too has diminished because of the unfavourable tenancy arrangements. In spite of the official tenant laws, landlords without incurring any costs still claim 2/3 of the output as land rent instead of 1/3.

In the past wage laborers in Polder 55/1, as in the whole coastal zone, would have worked as agricultural laborer, either on a contract or a daily basis. The number of (permanent) contract laborers has decreased and large farmers now employ more casual labor. Nowadays agriculture is not longer the mainstay of the local economy, and many wage laborers have diversified their livelihoods by getting into non-farming professions as well as into self-employment opportunities. Employment opportunities in the coastal zone have increased considerably but labor supply seems to outstrip the demand in many places. Until about a decade ago migrant labor from the north would assist during the harvesting season. There is now a reverse flow of laborers seeking work outside the areas.

The category of self employed persons has increased considerably. The main driving force is the availability of credit through NGOs. Another factor is the increased road network which has created opportunities for road transport as well as agricultural and non-agricultural activities. This category includes women who are involved in various home-based income generating activities as well as catching shrimp fry in the rivers. Many women and girls are involved in this activity, sometimes as wage laborers, sometimes as self-employed persons.

Fishers have always been a sizeable group in Polder 55/1 and throughout the coastal zone. Before the empoldering they used to fish in the rivers and the channels of the island. Since the mid 70s the common resource fish stock inside the polder has decreased considerably and the fishers now go for fishing in the adjacent rivers. From the early 90s culture fisheries in the channels of the polder have increased. While the elite control this resource the local fishers have benefited marginally from the additional work this provides to them.

As such, it is clear that the patterns of livelihoods in coastal areas are changing, with both traditional agricultural activities declining and new opportunities emerging. The exclusive focus on agriculture as the main source of livelihoods is no longer appropriate and coastal policies need to ensure that coastal communities, and especially the poor, are able to access new opportunities that emerge as the coastal area is more effectively integrated into the rest of Bangladesh. They should also ensure that the many effective coping strategies that local people have developed to deal with the multiple vulnerabilities that they face are supported.

2.5 Disaster coping strategies

The main disaster coping strategy of almost all groups in the coastal zone is one of diversification of income sources. Instead of households depending on one or two activities they now spread their working age adults over a number of activities and if possible localities, thereby ensuring problems in one area of their livelihoods has a lesser impact on them.

To cope with the possible damage of storms people protect their homestead by planting trees around their homestead. That strategy is fairly effective when it comes to protecting homesteads and houses, but it is insufficient to protect crops against strong winds.

Farmers have two strategies to cope with the increased salinity. The first is to plant *Boro* late to avoid the time when water is most saline. In practice the *Boro* crop then moves into the traditional *Aus* seasons and is therefore referred to as “*Braus*” (as Dr. Hugh Bremmer phrased it). In cases where salinity is extreme farmers drop *Boro* altogether and only produce *Aman*.

Since the 1970 many cyclone shelters have been built in the coastal zone. Initially people were reluctant to use them for cultural and practical reasons. In the last few decades these shelters have been made multi purpose buildings and are therefore easily accessible in time of need. Also arrangements have been made for women and men to stay in separate parts of the building during a cyclone. Furthermore the cyclone warning system has improved and now more people go to the shelters when warned by radio of an approaching cyclone. This effective disaster response system has lessened greatly the spectre of the destruction of life and livelihoods during the immediate time of the cyclones.

The main man-made vulnerability is misuse of power by local lords and government officials. This often occurs in relation to shrimp cultivation. In many areas large absentee landlords start shrimp cultivation on new land outside the embankment, often in and around the major outlet channels of polder. This has resulted in drainage congestion inside the polder. The next step is then to start shrimp ponds inside the polder itself. For this they allow saline water into the polder, upsetting agricultural production.

Courageous farmers and some government officials have tried to challenge the stranglehold of the local elite over the water management in the polder through the courts. The elite have fought back and to date their use of all sorts of pressure tactics have ensured that the power brokers remain in full control. Those who have challenged the local power structure have usually ended up with more trouble. Most of the poor therefore cope with the vulnerability of misuse of power by lying low, keeping their mouth shut and by ‘minding their own business’.

These coping strategies are a key feature of life in coastal areas and provide a basis on which actions to reduce coastal vulnerabilities can be based. Key government programmes such as empolderment and cyclone shelters can be very effective, as can programmes such as road construction in creating new opportunities. These need to be supplemented by actions to support people’s own initiatives, such as tree planting to protect homesteads, and actions to reduce the institutional and governance weaknesses of coastal areas. Finding the right balance between these different spheres of action is critical to coastal policy development in the coming years. What can we learn from what has happened in the past in defining and implementing new approaches for the future?

3 HISTORIC INTERVENTIONS IN SETTLING NEW COASTAL LANDS

One characteristic of coastal areas of Bangladesh is the emergence of new lands as silts accrete in the delta areas. These new lands are a major resource opportunity, but all too often poor people have had their access to them limited by local power relations. Land development in the coastal zone starts when mud banks fall dry during low tide. Local grass (“*uri*”) starts growing on these so called *chars* and they become a productive resource. Absentee landlords have traditionally competed with each other for control over these *chars*, with families under their patronage instructed to claim the land by settling there and living in huts on poles. Initially the new land produces only grass which is cut and sold as cattle feed at nearby markets. As the grass speeds up the deposit of silt the land gradually rises and buffalos are moved to the new area to graze. During high tide they graze in knee-deep water. The next stage of land development is when the *char* is planted with rice during the monsoon. When the crops are harvested clashes occur between the henchmen of the various landlords who claim the land as theirs. It is not uncommon for people to get killed during such clashes.

As the *chars* are still flooded during high tide the land level continues to increase. In due course more and more laborers and later on their families start settling on the land. At this stage low level isles are made between the fields to protect the crops from unwanted riverine water and retain sweet water. At this stage the *chars* are still dissected by a network of natural channels. These are a safe heaven for fish and the inhabitants catch the fish for their own consumption and for sale in nearby markets. In some areas the new *chars* are ideally situated for shrimp cultivation. In such places shrimp ponds are built with wooden structures that allow the in and outflow of saline water.

Traditionally communication in the coastal belt has been by boat. For short distances pedal power was used while larger boats were powered by wind. From the 80s onward there has been a rapid mechanization of all but the smallest of these country boats. As a result transportation speed has gone up considerably. Passenger transport over longer distances was, and still is, done by purpose built launches.

This reality is in some contradiction to the official system for land allocation. As per the Bangladesh law newly accreted land belongs to the government. To speed up the process of accretion, the Forest Department plants mangrove and other suitable plants and trees on emerging *chars*. However in some cases the department is unable to do so as the land is already claimed by others as mentioned above.

Where the forestation is successful the trees seldom grow to full maturity. At some stage people from nearby areas will start illegally cutting the forest for firewood and later clearing it all to allow settlement, cattle grazing and later on crop production. At this stage the area usually remains outside the influence of the government and under control of local lords.

At some later stage, when the *char* is well established and populated, the government will establish a foothold in the area, usually by establishing a police outpost. Gradually the various governmental departments will start up their activities such as building of roads and cyclone shelters, sinking of tube wells, establishing schools, markets etc. Depending on availability of resources the BWDB may study the feasibility of protecting the area by building an embankment around it or linking it with an existing polder.

In the Char Development and Settlement Project (CDSP) in Noakhali district the government has actively pursued its policy of allocating new land to genuinely landless households. Already over 4,000 households have received both the land itself as well as the necessary ownership documents. Claims by another 12,000 households are being processed.

4. IMPACTS

4.1. Short and long term impacts

The dominant traditional approach to coastal development in Bangladesh has been through empoldering deltaic lands. The main impacts of empoldering are:

- protection against all but a direct hit by a cyclone;
- created the secure conditions for other infra-structural investments such as roads, schools, market places, cyclone shelters etc;
- increased agricultural production by increased cropping intensity and yields;
- increased employment opportunities;
- increased potential for aquaculture in private ponds and leased canals;
- reduced availability of common property resources, i.e. capture fisheries;
- reduced grazing area for livestock.

In principle most of the impacts of empoldering are long term and by enabling other interventions such as micro-credit, empoldering has a clear poverty alleviation impact. As people in the case study area remarked: “now we eat three meals a day and very few people go hungry”. However, if the infrastructure is not operated

and maintained properly these benefits may reduce or disappear all together. For instance in many polders inappropriate operation, lack of maintenance of gates and embankment breaches has resulted in saline intrusion and a decline in the earlier positive impacts.

The coastal area was, and to some still is, rich in natural aquatic resources such as reed, wood, snails, fish etc. and general bio-diversity. Human interventions, such as empoldering, have resulted in a reduction of natural habitats such as *beels* (low lying areas permanently under water) and forest and a reduction in the bio-diversity. The development of approaches to land protection and management that maintain the benefits of polders, but do so without these negative environmental consequences, are critical to the new coastal policy process.

4.2. Sustainable operation

Sustainable operation of the infrastructure is necessary if the benefits of empoldering are to last. In the mid 90s SRP therefore made an effort to broaden local participation in operation and maintenance of the water management infrastructure. In line with the then “Guidelines for People’s Participation (GPP) in projects a four tier system of water user organisations was introduced in Polder 55/1. It was made up of Water Users Groups, linked through Water User Committees which were federated in Water Users Associations. All of these organisations were represented in the Polder Committee which also included officials from relevant government department.

Box 4: Poverty alleviation through Micro-credit

Again and again people with few assets mention how important micro-credit is to get them out of poverty. Take Rokan Mia: “I, was born landless and started my working life as a cow-boy. When turned 22 I got married. I am now 45, married with three children. I used to work as a farm laborer on a yearly or seasonal contract. As a part of my wage I got free food, some clothing and wages in kind (i.e., 4-6 bags of paddy depending on the nature of the contract). My income was sufficient for my wife and myself.

Soon our family started to grow with the arrival of our two daughters and a son. I could no longer maintain my family with my wage income. At that time the Grameen Bank started its work in our village. Many women then became members of Grameen Bank organized group and received loan for various activities. My wife one day asked my permission to join the group. I was reluctant and did not give my consent. In the meantime I continued my struggle to maintain the family, but found it very difficult to feed the five of us.

Finally I decided to allow my wife to join the Grameen group. Thanks to the cooperation of our fellow villagers my wife was included in the group. After a few months she approached the bank for a loan and that was granted. After two small loans she approached the bank for a larger sum. This time she received a loan of Taka 4000 to be paid back in 52 instalments of Taka 100 over period of one year. With this money I bought a rickshaw for Taka 2600 and the rest we used to buy few chickens and for consumption. I quite my job as wage laborer and started to pull a ricksha

In a year time I managed to repay the loan. Now I own the rickshaw and on average I earn Taka 100-150 per day, of which I spent around Taka 10 for maintenance of his rickshaw and another Taka 10-15 for tea and snacks. With the rest of the income I maintain the family.” Rokan Mia proudly concluded: “One of our daughters and our son now attend a primary school.”

These groups initiated under SRP never really became actively involved in operation and water management in polder 55/1, as in other project areas. The Polder Committee, with more than 50 members, met every few months but disintegrated after the project came to a close. The local elite (UP members, local religious leaders, landlords) soon took over operation of the gates and still do so today, and minorities often feel their needs are overlooked. Others complain that gate operation is done only after paying the necessary “grease money”. Those outside the inner circle of control feel powerless to change the situation and are utterly frustrated. This is one of the factors why small and marginal farmers move out of farming altogether. In the case study area this has resulted in more and more land ending up in the hands of the big landlords. In polders, where a few people control land and water management, the technical and social sustainability of polders is questionable. As such, the governance conditions under which interventions are developed and operated is a critical factor, perhaps the critical factor, in determining their effectiveness in contributing to poverty reduction objectives.

4.3 Sustainable maintenance

Alongside sustainable operation SRP also attempted to increase the sustainability of maintenance through introducing Embankment Maintenance Groups (EMGs) made up of women. The system worked well, with some changes after the end of the project, until mid 2002, when the system was discontinued and it is uncertain what, if anything, will replace it.

Under SRP major work on the embankment remained the responsibility of the BWDB. River erosion is the main threat and BWDB must do the necessary rehabilitation and/or embankment retirement. However, lack of funds or their late release, often means that breaches are not closed in time. The case study area, Polder 55/1, is a case in point. The breach of the embankment in the south-east could not be properly closed by mid 2002. If a cyclone hits this point of the polder, the impact on life and property would be disastrous.

One of the effects of the elite controlling gate operation is that people in general do not feel any sense of ‘ownership’ of the polder infrastructure. They are therefore also not willing to contribute to its operation, let alone maintenance. This, together with the lack of government funds for operation and maintenance, result in the infrastructure gradually deteriorating and the initial positive impacts disappearing.

Box 5: Pauperization: side effect of a project

A few years ago the Forest Department launched a project called Coastal Green Belt Project. Under the project trees were planted on the slopes of the embankment. The objectives of the project were to increase vegetation coverage and create a protection wall with trees against cyclone and storm surges. To ensure survival of the trees, all grazing of cattle on the embankment was banned. Cattle found near the embankment were picked up and taken into custody. Enforcement of the ban, which was very effective, was done through deployment of paid employees under supervision of the forest department personnel.

The households living along the embankment, who had always used the embankment as grazing ground or shelter for their cattle during the rainy season, found it difficult to cope with this new rule. Many violated the decree on the belief that they would not be penalized. Realities turned to be different. The forest department people frequently picked up the cattle. Owners had to pay Taka 20-30 as bribe to get their cattle back or see the cattle being confiscated. This became unbearable for small and marginal households, and many decided to sell their cattle. Consequently, most of the poorer households lost their livestock assets, and for many the loss of their livestock also restricted their entry into land and labor market as a tenant or laborer with draft power, through which many were making a living.

Presently the embankment looks green but households living along the green belt consider this achievement as being at the cost of their wellbeing. Among households who were forced to withdraw from land due to shortage of cattle, many could not resume livestock rearing. They were forced to adopt their livelihood activities and in the process many lost their land as well as their physical capital (i.e., cattle).

5. POLICY ANALYSIS

Because the coastal zone in Bangladesh is so rich in natural resources it has attracted people for centuries, in spite of the clear vulnerabilities of the area. From discussions with top level government officials it is clear that the GoB rightly sees the coastal zone as one with tremendous development potential with many untapped resources with much scope for livelihood diversification. This high level support is a crucial precondition for development.

Discussions also indicate that infrastructural development is no longer considered as an isolated act but seen as part of the wider system of addressing different problems. It is also recognized that structural interventions must be combined with relevant and supporting non-structural interventions and with effective governance arrangements. In relation to natural disasters this implies community capacity building so that they can cope with the immediate natural shocks and recover from losses with dignity. In the case of water management infrastructure such as embankments and regulators, this understanding calls for broad-based operation and maintenance. This broad view of development too is a major advantage when it comes to utilizing coastal resources for poverty alleviation.

Furthermore there is a move away from a sectoral to a holistic approach in which all aspects of coastal development are structured into the development process, based upon core objectives of empowerment and changing governance structures. The government is particularly interested in linking institutional development in the coastal area with the ongoing wider processes of decentralization and democratization. The government also sees the focus of the coastal development process as working through existing institutions, including specifically the enhancement of local government structures and the development of more effective inter-agency collaboration. This view is particularly relevant for wider poverty-focused strategies.

In some place the coastal resource base has been overexploited and permanently damaged. This applies in particular to the Sundarbans and to other forestry resources which have not been able to withstand the population's need for more land. In the case of the Sundarbans the process of deterioration may have now come to a halt with the recognition of the Sundarbans as a World Heritage site and subsequent government action. Apart from these specific instances, as yet relatively little of the coastal resource base has been permanent damaged. The potential productivity and contribution to poverty alleviation of these resources remains strong.

The general public is quite aware of the need to maintain a healthy environment. Living close to nature they are only too aware of how disastrous the consequences can be if the natural environment is mistreated. Therefore there is still a fairly widespread interest in managing the coastal resources in a sustainable and judicious manner.

There are major concerns over the influence of the powerful local elites, discussed above, and the barriers to effective institutional harmonisation (both between government agencies and amongst NGOs). Addressing these concerns, which are essentially about governance issues, is fundamental to the future development of pro-poor policies in coastal areas and demonstrates how these issues cannot be separated from the wider social and political conditions of countries such as Bangladesh.

The first challenge is to ensure that the ICZM under development follows a process approach, rather than a master plan or blue-print approach. For it to be useful it should have a 'twin-track' character, consisting of activities that are both effective in addressing real and immediate needs and contributing to long-term capacity development and structural change in the coast.

The second challenge relates to shrimp production. Rather than dealing with the old question of whether or not there should be any shrimp farming, it is best to assume that it is there to stay. The key question now is how to make shrimp production more equitable in terms of the benefits that go to local people, less environmentally damaging and more sustainable.

The third challenge is to ensure that the overall approach to coastal development will be one of harmonization of policies, strategies and activities of different agencies and sectors. This should be linked to a process of subsidiarity whereby different decision-making levels are integrated and decisions taken at the lowest appropriate level.

The overall conclusion of this analysis is that better water management is a precondition for coastal resources to contribute to poverty alleviation. Water is critical to coastal livelihoods in so many ways, whilst water-related vulnerabilities are a dominant feature of coastal life. Recent years has seen substantial development in many coastal areas, with activities by the government and private sector together have created employment opportunities and security that has allowed many poor to move out of poverty. Better water management will only achieve its full poverty alleviation impact if it is complemented by other activities that make use of the opportunities created, including schemes such as micro-credit that are not obviously connected to water resources issues. Above all, the key to coastal development that reduces the vulnerabilities and poverty that so many face is the creation of governance conditions whereby water and other resources can be accessed and managed in equitable and sustainable ways. The existing focus of the coastal policy on integrated approaches that target vulnerabilities and the needs of the poor and address governance issues is extremely encouraging and offers the basis for the transformation of coastal areas in Bangladesh. Only time will tell if this potential will be realised, but essential to it is the continuation of the political support from the centre that has characterised recent years.

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Appendix D: Gender and Economic Benefits from Domestic Water Supply in Semi-Arid Areas - Case Study by SEWA, Gujarat India

Summary

Combining improved water-supply with micro-enterprise development has much potential to alleviate poverty in semi-arid areas. This case study, implemented by the Self Employed Women's Association (SEWA) in Banaskantha district (Gujarat, India), combines the revival of the piped water supply and traditional water sources with a micro-enterprise development program for female entrepreneurs.

Joint research by the International Water and Sanitation Centre (IRC), SEWA, and Foundation of Public Interest (FPI) revealed that the time released by an improved water supply enables women enterprise members to make a substantial contribution to the household income, especially at times when other income generating opportunities are absent, for instance, during drought. In addition, gender relations have changed in favour of these women. Policy-wise, the study suggests the need for:

- an integrated, holistic approach to rural development in which women influence the design and operation of the service so that it meets their domestic and economic requirements;
- involving CBOs, NGOs, and other institutions with experience in improving water supply and supporting micro-enterprise development in the reformulation of current policies;
- using the development of women's enterprises combined with the improvement of domestic water supply as a major entry points for rural poverty alleviation programmes;
- de-linking water and poverty by providing income-generating opportunities that depend less, or not at all on water, and are demand-driven;
- the government, SEWA and other institutions to provide drought relief work in the form of craftwork at times when other economic opportunities are at their lowest;
- gender programmes to start addressing women's immediate gender needs and link these with the improvement of gender equality between, but also among the sexes i.e., for women of different ages and positions in the family.

The final recommendation is to find ways to scale-up SEWA's efforts and implement similar programs elsewhere.

1. Introduction

Every day, innumerable women still spend substantial amounts of time carrying home domestic water for the family. Water collection reduces the time left for welfare-increasing work and is a drain on household labour resources (Kamminga, 1991). Domestic water projects are generally designed with only such domestic uses in mind. Common objectives are improving welfare and health. This places domestic water projects firmly in the social or health sector and not in the sector of economic development. Yet if women's water collection was valued at paid labour, it would have high economic costs (McPherson and Jackson, 1975). Women themselves see domestic water services also as an opportunity for economic development. Especially where gains are substantial, "Poor women ... feel [that] time spent ... should contribute primarily to the family income" (van Wijk, 1998: 118).

SEWA is a trade union registered in 1972. It is an organization of poor, self-employed women workers, who earn a living through their own labour or small businesses. SEWA organizes women labourers for full employment and self-reliance so they have a regular income, food security, and access to health and childcare for themselves and their families. As self-reliant, autonomous actors, these women make their own decisions and control their economic activities independently.

SEWA initiated activities in Banaskantha³ to, amongst other objectives, improve the domestic water supply through better management of the piped water supply as well as the revival of traditional water sources such as ponds. However, only improving the water supply is not enough to alleviate poverty. Commenting on the goal of the Santalpur Rural Water Supply Scheme (SRWSS) implemented earlier, SEWA commented that the goal “was not simply the supply of water for its own sake. The availability of water was meant to unlock the human potential that had dried up with the decrease of water supply. However, the scheme had assumed that with the provision of water the rest would take care of itself” (SEWA,1999: 15). In a wider review of improved rural water schemes, Kamminga had come to a similar conclusion: “Considering [the] widespread constraints for women in most rural areas, additional measures will be indispensable in many cases to create the right conditions for women to increase their incomes” (1991: 11). SEWA therefore directed its efforts towards not only improving and reviving the existing water supply, piped water supply as well as traditional water sources, but also towards helping poor women to get organized, build their capacity and start and run micro-enterprises. SEWA also aimed to empower the women by giving them self-reliance in decision-making.

A more reliable domestic water supply³ combined with increased economic opportunities and a supportive environment not only has a direct impact on the income of the poor but also reduces their vulnerability during times of adversity. This case study illuminates this potential. In order to serve as a model for others, this case study will attempt to:

- Showcase the impact of effective water management on poverty alleviation and thereby highlight important policy recommendations.
- Assess the relevance of an accessible and reliable water supply for the productive uses of time and water by women in semi-arid regions.
- Examine the impact of income-generating activities by women on gender relations within their households and communities.

Given the success of the SEWA approach, there is a need to scale up the SEWA's efforts. Therefore, preconditions for scaling up need to be identified and to be introduced in the design of similar projects and programmes.

2. Research objectives and methodology

This case study is based on the findings of a study conducted by the IRC Water and Sanitation Centre (IRC, Delft), the Self-Employed Women's Association (SEWA, Ahmedabad), and the Foundation of Public Interest (FPI, Ahmedabad). That study had economic and gender objectives⁴. Overall, it aimed to look at how domestic water projects may be adjusted to maximise benefits from productive uses of water and time, thus maximising the poverty alleviation impact. Specifically, it sought to assess economic value of improved water supply (especially for women), study the impact on gender relations in households and communities. Besides census data and enterprise accounts, the study mainly used participatory rural appraisal (PRA) methods to collect data on time use, gender, and enterprise economics.

Participants were women from 11 SEWA-supported micro-enterprise groups in 9 villages and from 5 control villages (with comparable socio-economic conditions, according to the 1991 census) where SEWA was not active.⁵ The 5 different types of enterprises covered are crafts, dairying, salt farming, gum collection, and tree and fruit plantations. Women from these enterprises took part in the design of the tools, the analysis of the data and the discussion of the findings and conclusions.

³ The district of Banaskantha has recently been split into two. This research was carried out in the newly created district of Patan, but for consistency's sake the old name of Banaskantha has been retained here.

⁴ Additional data were collected on: the impacts of the earthquake in Banaskantha (Verhagen, Joep and SEWA. March 2001); economic impacts of improved water supply (Verhagen, Joep and SEWA. November 2000 and August 2001).

⁵ In 10 other villages, interviews were held with women enterprise leaders.

Field staff from SEWA and FPI implemented the present study, funded by the Swedish International Development Cooperation Agency (Sida).

3. The setting and problems in the context

3.1 Banaskantha

While the state of Gujarat, located on the western coast of India, has a relatively high per capita income, its economic future is threatened by an ever-growing water shortage. In 1999, a large part of the state suffered from the worst drought in 50 years. On average, droughts occur in the area every three years. Low-income families are usually the hardest hit by droughts and other natural disasters which are eroding interim development gains and leaving many trapped in an interminable cycle of poverty.

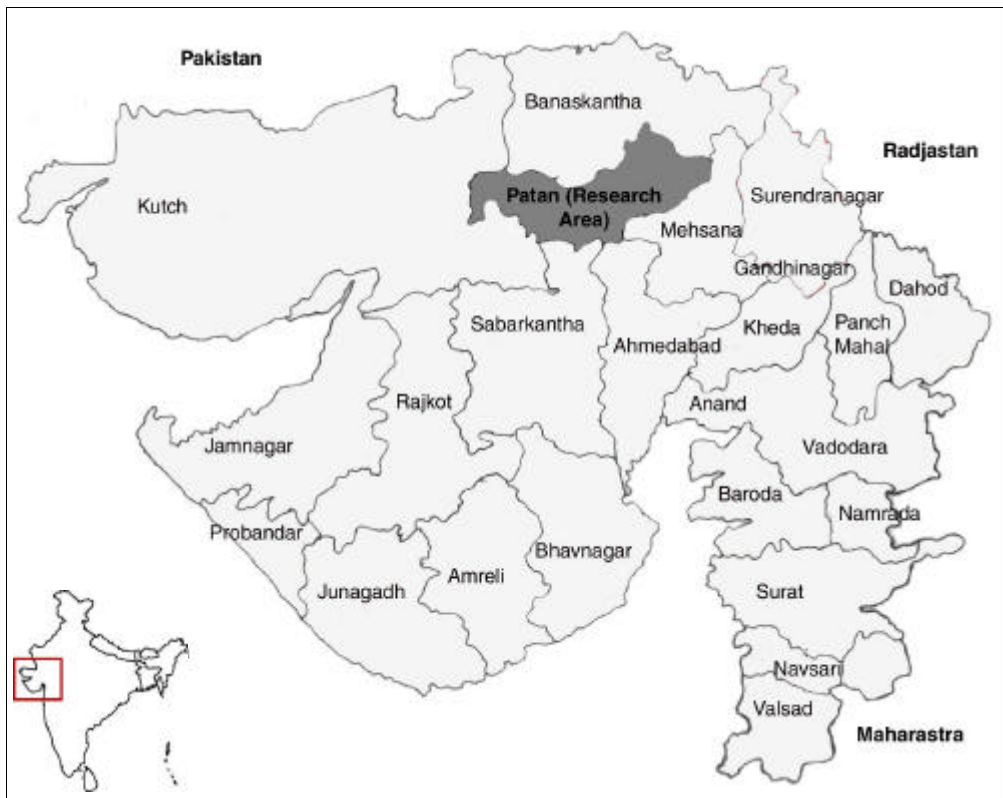
I was married when I was still a child and I have 2 sons and 2 daughters. I work in the salt pans from November till April and earn Rs. 40/- (US\$ 0.80) per day. Half of this I have to spend on transportation to the salt pan and back. It is very hard work especially when it gets hot. The remaining part of the year I work on our own land but when there is drought we migrate to find work elsewhere.

Before we got piped water supply, I fetched water from the well and the pond. It took me about 1 hour to fetch a pot (5 litres) of water. The standpost is much nearer but there is water only once a week. When the government tanker comes, there is always a huge crowd and often there are quarrels about water. Some days it takes me so much time to get water that I cannot go to the salt pan so I loose the income of that entire day.

Eight years ago, I became SEWA member. There are many SEWA members in our villages and together we are strong. Alone, I will not go the government but together we go to demand for more water tankers, for example. I take part in many of SEWA's activities and I give health and cleanliness training to our girls.

Kokuben Ramabhai Ahir (woman, 40 years), member of Salt Enterprise in Madhutra

Banaskantha is one of the most underdeveloped districts in the state. Over 90% of the population live in villages, many of which lack even the most basic infrastructure. Rain fed agriculture and dairy production are the main economic activities in this desert region. Consequently, when monsoon rains fail, entire communities are forced to migrate in search of employment and fodder for their livestock. Furthermore, excessive groundwater harvesting by a small group of rich farmers and a haphazard government water policy in the region, has led to the rapid decline of the groundwater table. Over-extraction and poor maintenance makes the water in a number of wells become saline and unsafe for drinking.



3.2 *Natural and man-made disasters*⁶

Natural and man-made disasters form an integral part of the life of the poor and in many cases keep them trapped in the vicious circle of poverty. Banaskantha is no exception to this⁷. On the 26th of January 2000, the state of Gujarat and a large part of India experienced the most violent earthquake of the last 50 years. The epicentre of this quake was located 20 kilometres northeast of Bhuj. Kutch and the neighbouring districts of Surendranagar, Rajkot and the research area Patan were badly affected by this earthquake.

Both the earthquake and the ongoing drought had a detrimental impact on the livelihoods of the local communities in Patan (see

⁶ The section on the impacts of the earthquake and the drought are based on an impact assessment in 48 villages in Banaskantha carried out by Joep Verhagen and SEWA in March 2001.

⁷ During the last five years Banaskantha witnessed the followed disasters: flooding (1997); Malaria epidemic (1997); Cyclone (1998 and 1999); Drought (2000 and 2001); and earthquake (2001)

Table 1). Prior to the earthquake, most of people's livelihoods – especially agricultural activities – were already in a precarious situation because of the two consecutive droughts that hit large parts of Gujarat. The earthquake all but stopped the remaining economic activities in the villages.

Table 1: Impacts of the earthquake and drought on livelihoods

	Activities	Embroidery	Salt	Dairy	Gum	Plantation	Agriculture
	% of villages	52%	52%	60%	35%	29%	100%
Earthquake	Not affected	0	8%	48%	6%	43%	15%
	Temporarily halted	40%	32%	28%	47%	14%	42%
	Halted	60%	56%	21%	47%	43%	39%
Drought in previous year⁸	Not affected	Na	Na	24%	24%	14%	3%
	Affected	Na	Na	72%	71%	86%	85%

N.B. figures do not add up to 100%, as missing values are not shown

A more detailed analysis reveals that the earthquake has caused permanent damage to people's livelihoods. Many households have not only lost their standing crops and the seeds for the upcoming agricultural season, but also their tools and the few irrigation facilities available have also been damaged. Crafts women lost their working and storage place.

Also the water supply has been badly affected by both the drought and the earthquake (Table 2). Almost all traditional water sources had already dried up before the earthquake, which caused structural damage to many wells and ponds. Though the piped water supply was restored in some of the villages, water tankers remained the sole sources of drinking water in a large number of villages.

Additional data reveal that 60% and 78% of the respondents consider that their water supply and livelihood respectively is in a worse condition compared to prior to the earthquake⁹.

Table 2: Impacts of the earthquake and drought on the domestic water supply

		Wells	Ponds	Standpost	Bore well
	% of villages with water sources	60%	100%	88%	40%
Earthquake	Not affected	7%	31%	33%	32%
	Temporarily affected	21%	13%	38%	16%
	Affected	66%	52%	24%	47%
	Missing values ¹⁰	7%	4%	5%	5%
Drought	Not affected	0%	0%	31%	68%
	Temporarily affected	0%	2%	62%	16%
	Affected	90%	90%		5%
	Missing values	10%	8%	7%	11%

4. Findings

4.1 Time Activity Profiles

Time activity profiles of women from both enterprise and control villages were used to derive insights into women's use of time. They distinguished domestic, economic, personal and developmental activities, and water collection for reproductive and productive use was assessed separately.

Even with the pipeline, water collection was time-consuming. On average, women from both types of groups spent 3 hours of their 15 to 16-hour working day to fetch water. Daughters spent nearly

⁸ The data were collected in the month of March, before the start of the summer. Hence it was decided to collect data on the drought of previous year.

⁹ As the data were collected during a drought period, it is probable that these figures reflect the combined impacts of the ongoing drought and the earthquake.

¹⁰ The high percentage of missing values is explained by the difficult circumstances in which the data had to be collected that were prevalent during the period shortly after the earthquake.

1.5 hours, sons 12 minutes, and husbands 15 minutes per day. In other words, on average a household spent nearly 5 hours a day on collecting water. This is high since, at least on paper, all households have year-round access to piped water, provided to reduce the drudgery of water collection! In reality, the piped water supply is of a sub-standard quality and often breaks down for longer periods of time.

When the piped water supply breaks down women need to spend substantially more time on fetching water: 2.54 hours and 2.30 hours in summer and monsoon respectively. Most of this time comes at the cost of time spent on income generating activities, 1.56 and 1.48 hours in summer and monsoon respectively. The extra time spent is in spite of the fact that people have to buy water and do not bathe.

Women contribute to household income through (1) expenditure-saving activities - including working on own agricultural land, and (2) income generating activities - either by hiring themselves out as daily wage labourers, or by doing micro-enterprise work (e.g., handicrafts, dairying, collecting gum or making salt). The data showed that women from enterprise villages spend more time on income generating work than women in control villages. (Table 3). It is particularly relevant that micro-enterprise activities provide family income at crucial times - in summers (and droughts), when other income sources are absent.

Table 3: Women's activity profiles in enterprise households and control villages (N= 16 villages)

Type of Activity		Summer		Monsoon	
		Enterprise villages	Control villages	Enterprise villages	Control villages
Reproductive activities	Other	4.3*	5.1*	5.2	5
	Water collection	2.8	3.5	2.8	2.5
Total productive activities	Income generating	7.5*	5.4*	3.4*	0.1*
	Expenditure saving	1.1	1.9	3.6*	7.2*
	Water for productive activities	0.4	0	0.3	0
Total personal activities		7.5	8.2	8.6	9.8

Data indicated with * indicate that time taken by women in enterprise villages and in control villages was statistically significantly different at the 5% level.

I was desperate when I became a widow: my livestock died, I had to sell my jewellery, I lost all my land to a moneylender, and I was not earning more than about Rs. 100 per month. About 10 years ago, SEWA started working in our village and helped us to set up a fruit plantation. Around that time, we also got piped water supply. The time I saved from fetching water, I would spend on the plantation. My income increased to around Rs. 450/- a month so I was able to send my children to school. Also my status in the village improved; the moneylender will give me a loan whenever I ask for it and I am no longer scared to speak during the village meetings.

After the earthquake, things became very bad. We have water for only 2 or 3 hours every 14 days. There are a lot of quarrels about water. One day, a man even attacked the women to get more water. Our plantation still works but I do not know what will happen if it does not rain this year again.

Neemuben Amardan Gadhvi (woman, 39 years), leader of fruit plantation in Zandala village.

4.2 Economic impacts

Two calculations were made: (1) the costs of reduced water collection time and (2) the potential benefit of reduced water collection time.

4.2.1 Costs of breakdowns

For women already employed in economic activity, the indirect costs of water collection time when the piped water supply broke down were calculated. This cost (either as potential income lost or as

cash costs incurred to collect water) were calculated to be an average of Rs. 50 per woman per month, during the three summer months. Extrapolating the loss to all SEWA micro-enterprise members in the two blocks, the inadequate operation and maintenance of the water service constitutes a total loss of Rs. 6 million annually for 40,000 SEWA members in Patan.

Each woman also lost, on average, seven hours of time per month in summer, for reproductive and/or personal activities.

4.2.2 Benefits of reduced collection time

If water supply is improved, so that women spend only one hour per day collecting water, women could use this time saved either for income generating activities or for domestic, social and developmental activities. The subsequent time gains, calculated on the basis of the time-activity profile, can be allocated either to *productive activities* or a combination of *reproductive and personal activities*.

Consequently, two alternative upper bounds have been calculated: (1) the maximum additional income a woman can earn assuming time saved is devoted to *economic activities*; and (2) the maximum time that is freed for *personal and reproductive activities*. Calculations showed that additional annual income could be between Rs.750 and Rs. 5520 per woman (depending on the economic options available). Alternatively, each woman might gain between 45 and 152 eight-hour days annually for domestic, social and developmental activities.

To further substantiate these findings data were collected on how women would allocate time savings from an improved water supply. It was found that the women would allocate 72% of these time savings to income generating activities, providing that sufficient economic opportunities are available. This underlines the need for integrated approaches towards poverty alleviation in semi-arid areas that addresses water supply as well as micro-enterprise development.

Secondly, women were asked to estimate economic gains from past improvements of the water supply. It was found that the average economic gains of past improvements of the water supply are over Rs. 150 /- per month per household. These improvements include the revival of traditional water sources¹¹ as well as piped water supply.

4.3 Gender impacts

4.3.1 Changes in gender relations

In all villages, gender relations have changed in favour of women. But, for members of women's enterprises, progress has been significantly greater, in terms of possession of assets and participation in decision-making and community management activities. Also, these women received significantly more help from husbands, sons, and daughters during a breakdown of the water supply in summer than the women in the control villages. Part of these changes can be attributed to the ongoing changes in society as a whole that are taking place. However, part of these changes can be traced back to SEWA's continuous efforts as well as to the increased economic activities of the women, especially at times of income stress.

Because gender relations concern women and men, male team members interviewed the men. The responses were used for a content analysis. At first, they were surprised to be asked and had problems to discuss gender, but they soon warmed to the issue and gave many and very specific reactions. Only two reactions were negative, e.g., women could visit places that men could not. In the control villages, the men mentioned a few more negative changes, but almost all were still positive. A small number of men referred to improvements in women's traditional gender roles, such as better management of the house and greater cleanliness of children.

¹¹ These include Roof Rainwater Harvesting, construction of plastic lined ponds, de-silting of wells, and so on.

The majority mentioned economic benefits for the family as a whole, greater equality between the sexes (better communication between spouses, husbands helping more), and women's empowerment. Interestingly, quite a few poor males mentioned how the empowerment of poor women had also empowered them: they were undertaking new activities and also received more respect in the village.

4.3.2 Control over time and income

A certain degree of control over time and income is essential for the women to use timesavings for income generating purposes. If the husband controls the entire household income and spends additional income on personal things, such as alcohol, there is no incentive for the women to generate more income even when time is available.

The study assessed three levels of control over time: women alone decide; they decide together with someone else in the household, and someone else decides. In both groups, 90% of the women had some control over their time use, either solely or together with another household member (husband, mother-in-law, etc.). Approximately 10% had no say still. They are probably unmarried and/or recently married young women who, according to local custom, still have a subordinated position in the household.

Control over income from women's work has been analysed using a similar method as for time use. Three categories of income were analysed: enterprise income, income from other sources (such as agricultural labour and government relief work), and overall household income. Since women in the control villages had not started any independent entrepreneurial activities, it emerged that women's enterprise members had significantly more control over their own income and over the household income than the control group. However, some 9% of women entrepreneurs had no say in the spending of the income that they had generated. This is probably the same group that does not have any control over their time.

Before we got a standpost in our village, I had to walk 4 kilometres to fetch water from the pond in the next village. I would go in the night to fetch water, come back, take a short rest, and then start cooking breakfast for my family. The water from that pond often would make us sick as well.

Now it takes me just one hour a day to fetch water. I don't get tired and I have much more time to collect gum. SEWA negotiated with the Forest Department to get higher prices for our gum and I earn around Rs. 300 and Rs. 400 (US\$ 6 – 8) per month. Nowadays, I also travel to other places and my husband no longer stops me from doing so.

Our drinking water situation is much better but we still do not have enough water for our livestock. So maybe this year my husband has to migrate with our cattle to find water and fodder. Ratanben Marfabhai Thakor (woman, 35 years), member of gum collection enterprise in Parsund village.

5. Conclusions and Policy Recommendations

5.1 Water Supply

The study found that improving domestic water supply is not just a *welfare issue* provided out of pity for women's drudgery in water collection, or for 'soft' concerns like improving health, hygiene, and sanitation, but also yields *economic* returns. Conditions are:

- the water supply provides the time savings and quantity and reliability of water required for economic use;
- the water project is linked with a micro-enterprise programme that provides the right enabling conditions, such as organisation and training of women, market research, marketing, quality control, and micro-credit facilities;

Policy-wise, there is a strong need for an:

- *integrated, holistic approach* to rural development, which is in contrast to the *sectoral approach* that is currently adopted by the Central and State Government;
- CBOs, NGOs, and other institutions with experience in improving water supply and supporting micro-enterprise development have to be involved in the reformulation of current policies. These institutions should also be used as *pathfinders in pilot exercises* before scaling up holistic rural development to a larger scale.

5.2 Poverty Alleviation

From the findings, it became clear that:

- women provide income to the family *in four ways*: by doing agricultural work on the land of the household, by engaging in expenditure-saving activities e.g., fodder collection and vegetable gardening, by hiring themselves out as daily wage labourers, and by doing micro-enterprise work;
- work in the micro- enterprises provides family income at times when this is *especially essential* i.e., in the dry season when income from other sources is absent. The production is a valuable source of income for poor families and a means for women to meet their practical and strategic gender needs.

Conditions are:

- a reliable improved water supply with amounts of water and predictability of delivery adjusted to women's needs;
- a micro-enterprises support programme that goes beyond training, but covers the whole range of requirements and assists the micro-enterprises to pool their resources for crucial higher level services, such as training, quality control, marketing, market research, and market capital.

Unfortunately, water services are at their worst during the dry season and women, as primary stakeholders, have currently *no influence* on the reliability and distribution of water in comprehensive water supply schemes.

Policy-wise, there is a need for:

- Improving the water supply as part of a holistic, rural development approach in which women have influence on the design and operation of the service so that it meets their *domestic and economic* requirements.
- The development of women's enterprises combined with the improvement of domestic water supply – and not just improvements in the resource base, e.g., soils, irrigation water, crops and forests – should become *major entry points* for rural poverty alleviation programmes.
- As the total amount of water in semi-arid areas is limited, poverty alleviation policies should furthermore try to de-link *water and poverty* by providing income-generating opportunities that depend less, or not at all on water, and are based on market demand.

5.3 Drought Management

The project found also that money spent on *drought relief work* in the form of craftwork can be economically viable. Craftwork does not need water and women appreciate that it can be done at home in combination with their other tasks and at flexible hours. In this sense, it compares favourably with the current type of government relief work, which is inflexible and physically demanding and has lower returns.

Policy-wise it is recommended that:

- The government, SEWA and other institutions, should provide drought relief work in the form of craftwork *at times when other economic opportunities are at their lowest*.

5.4 Gender Relations

Overall, and in all study villages, gender relations have changed in favour of women during the last ten years. On a number of essential indicators, such as possession of assets, participation in decision taking, and community management activities, progress has been greater for members of women enterprises than for women in the control villages, reflecting the impact of the work of SEWA and BDMSA.

During a breakdown of the water supply in summer, women, who are members of an enterprise, receive significantly more help from other household members (husbands, sons and daughters) than the women in the control villages. SEWA women also have a significantly greater say over the use of their time and over their own and the family's income

The research showed that a combination of *anti-poverty* and *women's empowerment* strategy for rural development also leads to greater *gender equality*. In the semi-structured interviews, only a few husbands stressed the *welfare* benefits of women's income generation, projects i.e., the value of these projects for women's traditional gender roles such as better management of the house and greater cleanliness of the children.

Almost invariably the men in the study villages saw these changes as positive. The groups in the women's enterprise villages saw more changes than those in the other villages. Asked about the kind of changes, all groups described specific improvements in women's domestic roles and gave a number of instances of greater equality between women and men within households. In addition, the groups in the women's enterprise villages also always gave examples of poverty reduction from women's work and more often gave instances of women's empowerment as a group.

Policy-wise it is recommended that:

- Gender programmes should start addressing women's immediate gender needs and link these with the improvement of gender equality between, but also *among* the sexes i.e., for women of different *ages and positions* in the family.

6. Scaling up

This case study demonstrates that the integrated approach that is followed by SEWA does lead to an improvement of the quality of life for both men and women in semi-arid areas such as Banaskantha. However, there is a need to initiate similar programs at a larger scale.

For this purpose, NGOs and other institutions with experience in such effective poverty alleviation have to be involved in the reformulation of current policies to incorporate these major changes. The reformulation of policies should be based on identified pre-conditions for success. These institutions should also be used as pathfinders in pilot exercises before scaling up the operation to a larger scale.

Secondly, many NGOs do have the capacity to mobilise local communities and collaborate with them in an effective manner. However, often they lack the technical and managerial capacity to implement projects at a much larger scale.

Finally, part of the government drought relief funds should be spent on providing *craftwork for poor women*, *provided* this can be done based on and adjusted to real market demands and with an efficient plan for managing and marketing their output.

Policy-wise it is recommended that:

- Concrete programmes could be up-scaled by increasing the responsiveness of the local government agencies towards demands from CBOs and NGOs. Presently, too much time and managerial resources are needed to attain the much-needed collaboration from the local government institutions.

- Resources should be made available to build the capacity of NGOs in the technical fields and if needed they should have easy access to tailor-made technical and managerial assistance.
- Institutions experienced in organising such drought relief work in the form of craftwork for poor women should be involved in the policy reformulation exercise.

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