Working Session on
Meeting Challenges of Knowledge Management in Water and Sanitation

25th to 28th November
A Report

4th International Conference on Environment Education

DRAFT REPORT (PART- I)

Working Session on
Meeting Challenges of Knowledge Management in Water and Sanitation

Abbreviations

ICEE
CEE
EE
ESD
DESD
MDG
WATSAN
KM
IEC
SWM

FOREWORD

Issues of Water & Sanitation are at the very core of any development strategy. The Millennium Development Goals (MDG) mentioned this as an essential element to ensure environmental sustainability. The goal is to reduce by half the proportion of people without sustainable access to safe drinking water. This sector like several others cannot be fixed by infrastructure or technology alone. WATSAN is deeply connected with people and societies and to this extent an effective educational and communication strategy is central to dealing with WATSAN issues. There are several success stories from all over the world but these largely remain isolated examples. We need to document and share experiences, need to build capacities at the local levels to learn from these and adapt the learnings to their own conditions.

WATSAN formed one of the key themes at the Fourth International Conference on Environmental Education (ICEE) held at the Centre for Environment Education, Ahmedabad on November 26-28' 2007. The Conference marked 30 years of the inter-governmental conference on EE held at Tbilisi, Georgia in 1977. Like the first Conference, this was sponsored by UNESCO, UNEP and also hosted by the Government of India.

The recommendations of the working sessions on WATSAN which was were organised with programmatic and financial support of WaterAid, Gender and Water Alliance (GWA), Water and Sanitation Management Organisation (WASMO) and PRAVAH was a major contribution to the overall recommendation adopted unanimously by all the delegates at the final session of the Conference. The more detailed recommendations of this working group which emerged from the sharing of over 50 participants from diverse organization spread across the globe will be useful to all those who want to integrate WATSAN into ESD efforts and ESD in WATSAN efforts. As we mark, 2008 as the Year of Sanitation, these deliberations are particularly timely.

Finally, we would like to thank the members of the working session advisory group, without whose guidance and contribution we would not have had the vibrancy of discussion and rigour that went into these holistic recommendations.

Kartikeya V. Sarabhai
Director

Background

The 4th International Conference on Environmental Education (ICEE) was held from 24th to 28th November, 2007 at the Centre for Environment Education (CEE), Ahmedabad, India. CEE was the nodal and host agency. The conference was organized by Government of India with UNESCO and UNEP as co-sponsors. Being the fourth in the series of conferences on Environmental Education (EE) since the first Intergovernmental Conference held in 1977 at Tbilisi, Georgia, the aim of this conference was to look into understanding what has emerged out of the discipline of EE since Tbilisi and the role of EE within Education for Sustainable Development (ESD). A particular significance was attached to this conference in light of it being held in the third year of the on-going United Nations' Decade of Education for Sustainable Development (DESD 2005-2014). Towards this end, the conference provided a forum to look at how EE and ESD can partner and strengthen each other towards building a sustainable future.

Objectives of the Conference

The 4th ICEE was planned as a forum which would:

- Review the status of EE in the context of DESD
- Reformulate EE to support ESD and help bridge gaps
- Share good practices and experiences in ESD
- Develop strategies for progressing ESD in the world

While education has been recognized as important, it continues to be largely marginal in its application by development planners. The cost benefit equations that development planners use rarely show 'education' as the driver for change. It is a case of EE being important but not quite how much. However, if EE is to play a significant role in the larger objective of making human existence more sustainable, it needs to scale up efforts considerably. And with scaling up comes the responsibility and accountability to show measurable results. Therefore, EE needs to play a much more, mainstream role in society and in education. Furthermore, EE needs to look at new tools that today facilitate learning at various levels. The 4th ICEE was held to provide a platform for this line of thinking and to bring out recommendations to take the EE community forward.

For this purpose, thirty working sessions on diverse themes were organized. This included range of thematic areas like, media, WATSAN, higher education, biodiversity, corporate citizenship and sustainable consumption. Apart from this six plenary sessions were organized. The key note address for the inaugural plenary was made by Dr. R K Pachauri, Director-General, The Energy Research Institute (TERI) and the valedictory address was given by H. E. Mr. Koichiro Mastuura, Directory-General, UNESCO. A total of over 1500 delegates from 97 countries participated in the conference.

Need for a Working Session on Water and Sanitation focusing on Knowledge Management

Governments have recognized access to safe drinking water as a human right and the Millennium Development Goals (MDG) have reinforced it by providing tangible targets. Towards fulfillment of this commitment, Education for Sustainable Development (ESD) has a role for raising awareness and build capacity of users, service providers, local institutions and policy makers to deliver the same. The role of ESD in water and sanitation (WATSAN) allies with the key aspects of knowledge management (KM) as listed below:

• Develop mechanisms that enable sharing of experiences and capabilities to avoid reinvention of the wheel
• Identifying from the analysis of past experiences, the specific areas of capacity building for practitioners, academicians and policy makers
• Build and map networks to support the strengthening of the technical capacities of the local institutions of self governance
• Generate awareness amongst the stakeholders of their power and responsibility to effect positive change on a global scale
• Foster values, behavior and lifestyles required to avert scaling up of the challenges in WATSAN
• Mainstream concerns of equity, access and ownership of the special (vulnerable) community groups into the sector of WATSAN.

With this in view, the overall objective of the working session was to facilitate sharing of experiences and learnings of KM in the WATSAN sector. There are many initiatives that try to facilitate sharing of information and exchange of experiences for holistic learning across different groups of stakeholders. There are organizations and networks that specifically focus on evolving mechanisms for KM. However, such organizations are few in number and the impact that they have generated is perhaps not adequate for mainstreaming learning generated through the pilots. It is also realized in some cases that linkages between the implementing organizations (service providers) and the institutions that try to strengthen the process of KM are not well established. In effect therefore, the achievements are limited.

Access to safe drinking WATSAN facilities has remained an elusive dream for many in least developing countries (LDC) and developing countries even after being advocated as human right. Towards the fulfillment of universal access to WATSAN facilities, diverse approaches have been adapted. There has been a consensus on these fundamental approaches amongst practitioners, researchers and policy makers. Some of the ideas are not translated in to reality for various reasons. One of the obstacles is limited sharing of ideas, experiences and absence of forum for collective actions. Moreover, only a few have documented institutional experiences. Therefore, we find many people doing similar activities simultaneously and committing the same mistakes in certain cases. There is a realization that the needs of the special (vulnerable) groups have not been addressed adequately. On the contrary, in some cases they are forgotten altogether.

Some of the practitioners believe that without focusing on issues related to KM, desired results will not be achieved. The working session on WATSAN attempted to find possible

answers for the issues stated below through sharing of experiences of KM of the participants viz.:

• What have various initiatives contributed for capacity building of practitioners and organizations?
• What are the generic lessons learned from the KM experiences across different regions?
• How can KM contribute in dealing with the challenges of the sector by improving mechanisms for learning & sharing?

Objectives of the Working Session
• Orientation to major thematic areas of KM in WATSAN
• Review the practices, strategies and approaches of KM for inclusive planning and implementation of water and sanitation programmes, with special focus on gender mainstreaming
• Develop an insight in to the dynamics of the networks at grass roots levels

Issues
The working session deliberated on the role of KM in meeting the MDGs relevant to WATSAN and discussed key issues including:
• Technologies for promotion of sanitation
• Strengthening institutions of self governance in WATSAN
• Sustainability of Community of Practitioners (CoPs) and its extension to include grass roots institutions and practitioners
• Gender mainstreaming in WATSAN
• Experiences of institutions that promote KM
• Knowledge centers for WATSAN
• Role of school sanitation and hygiene education (SSHE)

Planning for the Working Session

An advisory group was formulated to guide the development of the programme content for this session. It comprised of experts in one or more technical areas related to water and sanitation (WATSAN). The advisory group members represented a wide range of institutions and experience to provide the required intellectual and academic rigor in designing the Working Session. The members of the advisory group facilitated identification of the sub themes for the working session to comprehensively cover regional issues, and for the same, identify appropriate regional case studies. Central to their involvement was the objective of highlighting the learning of the sector and in its relation facilitate the working session. [1]

To consolidate learning of the sector, the members of the advisory group suggested drawing out recommendations from the key international conferences and workshops related to WATSAN organized post 2000. To this end, a list of 16 such events was complied - starting from the '2nd World Water Forum on Water Security in 21st Century' to the 39th Annual Meeting of ADB'. The list of these events with the web links to their recommendations was posted on the conference website[2]. The sector learning also emerged from the discussions in the six advisory group meetings from 15th September to 23 October 2007.

Representation of perspectives of the local and international networks, international donor agencies, academicians and government agencies by the members of advisory group provided an overview of the concerns of planning, policy and implementation. The working session development was further enriched by the financial support from institutions having diverse experience and profile. The working session was supported by PRAVAH, Water and Sanitation Management Organization (WASMO), Gender and Water Alliance (GWA) and WaterAid. They have been briefly introduced below.

PRAVAH is a membership based network with more that 150 NGOs and individuals working towards mobilizing action on drinking water and sanitation in Gujarat, India.

GWA is a global network dedicated to mainstream gender in water resources management. It has more than 1000 members in 104 countries worldwide. Its mission is to promote women's and men's equitable access to and management of safe and adequate water, for domestic supply, sanitation, food security and environmental sustainability.

WASMO is an autonomous organization established by the Government of Gujarat State in 2002. It seeks to improve the standard of living of rural communities by enabling them to have adequate, safe and sustainable drinking water and an improved habitat.

WaterAid is an international charity. Its mission is to overcome poverty by enabling the world's poorest people to gain access to safe water, sanitation and hygiene education. Its vision is of a world where everyone has access to safe water and sanitation. **The working session was supported by WaterAid – India.**

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[1] Annexure 1is the list of members of the working session advisory group
[2] Find the web links of the recommendations from past events in Annexure 2

Schedule

	Meeting Challenges of Knowledge Management in WATSAN' - 4th International Conference on Environme...					
	Draft Sessions Plan (25 to 27 November, 2007)					
Date	**25th November**				**26th November**	
Time	9.30 to 11.00 a.m.	11.30 a.m. to 1.00 p.m.	2.00 p.m. to 3.30 p.m.	4.00 p.m. to 6.00 p.m.	2.00 p.m. to 3.30 p.m.	4.00 p... 6.00...
Thematic Topics	**Overview/Status of Knowledge Management in WATSAN Sector**	**Educational Initiatives for WATSAN**	**Community of Practitioners (COPs), Networks, Partnerships**	**Hygiene & Sanitation Education**	**Mainstreaming Gender**	**Policy Advoca...**
Session Chairs	Mr. R. K. Sama, Project Director, Water and Sanitation Management Organization (WASMO), India	Mr. Mayank Joshi, Consultant Water and Sanitation, India	Ms. Kumudhu Sumangalie, Gender and Equity Manager, World University Service of Canada, Srilanka & Mr. Wasim Wagha, Programme Manager, DAMAAN, Pakistan	Dr. Ashoke Chatterjee, Consultant, Media and Development, India	Dr. Sara Ahmed, Chair Person, Gender and Water Alliance, India	Mr. Aru... Mudger... Project UNICEF...
Speakers	Mr. V.S. Gadhvi, Secretary, Water Supply, Government of Gujarat, India	Dr. Kuntala Lahiri, Fellow, Australian National University	Mr. Arumugam Kalimuthu, Chair Person, Wes-Net India	Mr. Joe Madiath, Executive Director, Gram Vikas, India	Ms. Mugorewera Drocella, Consultant, Rwanda	Mr. Dep... Kapur, Country... Repres... WaterA... India
	Mr. Avinash Zutshi, Vice President Capacity Building Division, Feedback Ventures Private Limited India	Mr. Brijpal Patel, Programme Coordinator, CEE Ms. Minaxi Shukla, CHETNA and Mr. Vijay Kaushal, Sr. Programme Officer, VIKSAT, India	Mr. Apoorva Oza, Trustee, PRAVAH – India	Mr. Ishwarbhai Patel, Environmental Sanitation Institute (ESI), India	Ms. Seema Kulkarni, Fellow, SOPPECOM, India	Ms. Roh... Ahmed... WaterA... Banglad...
	Dr. Frank Odhiambo, Programme Manager, WEDC, United Kingdom	Dr. Yashesh Anantani, Consultant, India	Dr. Jaipal Singh, CEO, WASMO, India		Panel Discussion	

The thematic topics for the working session were derived from the concept note for the Working Session. For each of the four thematic sessions viz. Overview/Status of KM in WATSAN Sector, Hygiene & Sanitation Education, Mainstreaming Gender and Policy Advocacy, a concept note was drafted by session Chair. The purpose of the concept notes was to help moderate the discussion and direct presentations in thematic session towards tangible outcomes. For the same purpose, each speaker was provided with a session brief. These were drafted in reference to the concept notes and in consultation with the session chair and advisory group.

While there was an attempt to structure the facilitation of the working session to bring out the most from the schedule design, session chairs were given the freedom to make changes in the order of presentation and to include other delegates as speakers or commentators. Taking opportunity of this, most chair persons requested individuals having relevant experience to comment on the presentation and provide their regional perspective to the presentations and discussion. This helped enrich the discussion and made each thematic session regionally inclusive.

Profile of Participants

A total of 53 participants remained present in the working session through out the six sessions. Please refer to Annexure 3 for list of participants. The participants represented diversity of organizations i.e. networks, NGOs, universities, governments, support organizations, UN organizations and individuals. Majority of the participants for the working session were invited on the reference of the advisory group members. The invitation was sent based on the contribution the participant can make to the themes within the Working Session.

The diverse experience of participants has enriched the discussion of the Working Session. A total of 11 countries were represented in the Working Session. The working session had 19 women and 34 male delegates.

Session 1: Overview of Knowledge Management
The inaugural session of the working session on 'Meeting Challenges of Knowledge Management in Water and Sanitation' on November 25, 2007 was the 'Overview of Knowledge Management'. The session started with the introduction of participants and welcome address by Mr. Atul Pandya, Programme Director, Rural Programmes, Centre for Environment Education. The speakers for the thematic session were Mr. V. S. Gadhvi and Mr. Avinash Zutshi, and it was facilitated by Mr. R K Sama, Director - Programmes, WASMO.

Mr. V. S. Gadhvi, Secretary, Water Supply, Government of Gujarat State (India)

The introductory presentation focused on the present status of the sector and issues of knowledge management (KM) for water and sanitation (WATSAN). In his opening remarks he pointed out that the review of

Mr. Gadhvi is in-charge of the Department of Narmada, Water Resources, Water Supply and Kalpasar. As Chair Person of Water and Sanitation Management Organization (WASMO), he is one key official in the Government to forward the agenda of community driven drinking water supply programmes.

WATSAN sector has context of the Millennium Development Goals (MDGs), the set of technologies employed to meet the goals, and the level of satisfaction of the consumers and sustainability of the systems in place for supply of adequate services.

He noted that the elements that require attention in case of "water" include: availability, adequacy, sustainability and service levels. In case of "sanitation" the focus needs to be on the options, urgency, coverage, practice change and sustainability. Within this context, and speaking about issues of KM in WATSAN sector, Mr. Gadhvi highlighted the following areas:

- o Scaling up in space and time
- o Networking
- o Convergence of water, sanitation and health
- o Engagement of users
- o Transfer of knowledge and skills
- o Establishing institutional mechanism

It was observed by the speaker that the role of state has changed over a period of time. The state (increasingly) is taking on the role of a facilitator rather than being the provider of WATSAN services. This change indicates that other stakeholders (like local institutions of self governance- e.g. Panchayati Raj) and the stakeholder groups (other than the government department) will acquire status of being in-charge for the management of WATSAN resources and facilities.

In view of the current policy framework, the speaker shared some of the steps that have been taken by the Government of Gujarat State (India):

- o Empowerment of Panchayati Raj Institutions (institutions of local self governance) and engagement of communities- through mission approach
- o Inter-basin water transfer
- o Ground water recharge on massive scale and citizens' involvement

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The key aspects that will have to be considered for effective KM:
- Human resource development (skills of government officials, engineers, members of NGOs, members of user groups, etc.)
- Capacity building of all stakeholders (right up to user groups) through awareness, participation, and proactive facilitation
- Information, education and communication (IEC), media mix for awareness and reinforcement of processes
- Reuse of knowledge base and replication
- Keeping the intervention region/area focused: geographically and culturally specific design

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Based on the experience of the Water and Sanitation Management Organization (WASMO), the speaker shared how the perception of people is changing. Before WASMO initiated its activity, people thought that the problems related to drinking water had to be resolved by the government. In other words, 'water' was the responsibility of the government. But, with increased people's participation in the management of drinking water WASMO has been able to change that perception at the village level. It has facilitated development of an alternative model, where in all stakeholders have roles and responsibilities and they participate actively in decision making for efficient and responsive management systems. Such efforts have resulted in:

- o Emergence of leadership at local (village) level
- o Assured availability of drinking water
- o Users have become managers

Mr. Gadhvi informed the group that the above changes were possible because WASMO listened to the members of communities, showing the readiness to learn. Second, it has created the space for sharing of knowledge and responsibilities. WASMO's experience reinforces the importance of the facilitators role in transfer of knowledge and its management.

Mr. Avinash Zutshi (Vice President, Feedback Ventures, New Delhi, India).

Mr. Zutshi started with an observation that KM comprises a range of practices used in the sector today. According to him these practices are to identify,

Mr. Zutshi is fondly remembered by the WATSAN community in the position of Sr. Programme Officer, The Royal Netherlands Embassy (RNE), New Delhi. He has also worked with ADB in Bangladesh.

create, represent and distribute knowledge. He stressed the need to strengthen the processes contributing to KM. He set the tone for his presentation by sharing the outcomes of KM:

- Improved performance
- Competitive Advantage
- Transfer of lessons learnt
- Development of collaborative practices
- Value for investment, and
- Users benefit from knowledge, practices, technologies and experiences

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The approach to KM should incorporate the following components:
- Creation and dissemination of information, manage sector information in such a way that it is shared efficiently
- Access to process technology (working manuals, at present, are not available on websites for civil society and community)
- Educating the stakeholders on policy

Mr. Zutshi's presentation also included the sector analysis in the context of India. Some of the important points mentioned by him were:

a. In early years of independence (beginning from 1952) the water supply was viewed as part of the Minimum Need Programme (MNP)
b. Later (in 1981) it was turned in to Accelerated Rural Water Supply Programme (ARWSP)
c. Concept of Community Participation (CP) was introduced only in 1996
d. Sharing of cost through user contribution got introduced only in the year 1999 and now the sector is moving towards "no subsidy" situation.

The speaker shared the provisions made under the constitution for making institutions of self governance responsible for providing WATSAN services to the citizens. References were made to the constitutional amendments in India. Mentioned below are some excerpts from this amendments and key policies:

■ "the service delivery function for water supply and sanitation shall be devolved to local governments as one of the 28 functional responsibilities of Panchayati Raj Institution" - 73rd Amendment in 1992
■ "WSS for domestic, industrial and commercial purposes to be one of the 18 functional responsibilities of the Urban Local Body (ULB)" - 74th Amendment in 1992
■ "Accords importance of drinking water over other uses and introduced the concept of private sector participation, commercialization and cost recovery" - National Water Policy 2002

■ Emphasizes that "right to development" must be fulfilled so as to equitably meet development and environmental needs of present and future generations
- National Environment Policy 2004

In accordance with the constitutional amendments and national water policy, the sector reform activities (in India) began in the year 1999. The famous nation-wide sector reforms were taken up through a programme called "*swajaldhara*". The implementing principles adopted under "*swajaldhara*" are:

- Demand driven approach
- Local institution/community based ownership
- Panchayats to plan, construct and dispense the funds
- Implementation integrated with water resources management
- 10% capital cost and 100% Operations and Maintenance (O & M) cost by community, and
- Shift in role for PSU (Project Support Unit) from service provider to advisor, facilitator and policy regulator

Mr. Zutshi pointed out that the reforms aimed at "decentralization" while enabling Panchayati Raj Institutions (PRI), transfers 3Fs - funds, functionaries, function - to the jurisdiction of PRI, and empower PRI and WATSAN committees for cost recovery. However, as the speaker observed, as the process of decentralization is very slow, transfer of 3Fs is not happening as expected and Project Support Units (PSUs) continue to play dominant role. In context of the "targets & coverage", the situation is not very encouraging:

- Completed schemes' functional performance is only 45% nationally, and
- O & M budget exceeds budget for infrastructure development

The speaker, while reviewing the sector, drew out the challenges that KM faces in context to the WATSAN sector viz.:

- WATSAN has not become a political agenda
- How to use IEC effectively for "demand driven" approach?
- Improved efficiency of O & M (may be through privatization!)

He concluded by sharing his concern on 'how can KM be used for broad based & practical bottom-up approach?'

After Mr. Zutshi's presentation, the delegates raised issues concerning the drive towards privatization of water. Questions were raised both at an ideological level on the private ownership of common property resources. The viability of privatization in all geographical and socio-economic settings was challenged. They suggested that KM should be viewed beyond monitoring and planning.

Dr. Ashoke Chatterjee, member of the working session advisory group, concluded the session by drawing out from the two presentations, the key challenges for the sector:
1. IEC was introduced to facilitate the bottom up approach but it hasn't been implemented in the same spirit.
2. Scaling up for universal delivery of safe water and sanitation facilities
3. Respect the knowledge that exist with the community and intensity process of decentralization

[Dr. Frank Odhiambo, who was scheduled to present along with the earlier two speakers due to delayed flight, was unable to make his presentation on schedule. Therefore, his presentation was rescheduled in the evening. But to maintain thematic flow his presentation is reported here.]

Dr Frank Odhiambo, Programme Manager, Water and Engineering Development Centre (WEDC), Loughborough University
Dr. Odhiambo presented a paper providing theoretical perspective of KM. He started with

Dr. Frank Odhiambo has extensively written on the subject of Knowledge Management. He has researched in Africa as well as in India. He has also researched on participatory approaches for the Water and Sanitation Collaborative Council (WSCC).

a reminder that information management and KM should not be mixed or misunderstood as the same. Information management is all about access, handling storage, delivery and secure archiving of information. While KM is a coordinated effort to **grow** and **leverage an organization's know-how value**.

The Growth refers to:
➢ Developing competencies & skills
➢ Research & Development
➢ Networks/ alliances
➢ Consultants
➢ Multi-disciplinary collaborations

Leveraging organization's know-how value refers to:
➢ New courses/services
➢ Intellectual property
➢ Increase revenue collection
➢ Consultancy services
➢ Reuse- cost avoidance
➢ Process- consistent delivery

Emphasizing the need for differentiating between 'information' & 'knowledge' Dr. Odhiambo explained that:
➢ It is difficult to separate **knowledge, from information**

➢ **Knowledge** is not **conflicting, but information** can be

Knowledge can be **explicit** or **tacit**. The explicit type of knowledge is documented and therefore available for sharing. The tacit knowledge refers to the type that remains '**personal**' or '**social**'. KM initiatives are centered on 'tacit knowledge'.

There is no one definition of KM on which all agree, he added. Moreover, there are various opinions about the scope of KM. Lastly; there are varying emphases – information and communication technology (ICT), organizational change and development. It is therefore difficult to bring about common agreement on some of the points of KM.

The question that is discussed in all forums is "can knowledge be managed?" According to Dr. Odhiambo, knowledge cannot be managed. But, efforts can be made to support the activities/processes that will facilitate knowledge creation, sharing and retrieval resulting in better outputs for the organization. The speaker pointed out that good KM strategy would support:
➢ Rewarding knowledge sharing
➢ High levels of trust
➢ Team-based collaborative work
➢ Customer satisfaction focus
➢ Value outside ideas
➢ Manage competition
➢ Understand the need to share knowledge at all levels
➢ Support localised decision making

There are some pitfalls that need to be avoided by those who attempt KM:
a. It requires lots of patience. In other words, impatience can become an impediment in facilitating KM process.
b. ICT is a panacea. One might get carried away by the technology and miss the main agenda!
c. Ignoring cultural dimension can be dangerous. It might become an obstacle to achieving the desired outcome.
d. KM team has to continuously update database, website etc. Lack of it or delay can result in difficult situations.
e. Support of the top management is a must. Without it the process can not be taken forward.
f. KM initiative has to be valued.

Many people also ask the question: how does it help in business? In other words, does it contribute to increasing efficiency and productivity? According to Dr. Odhiambo, KM can contribute in achieving four goals P,R,I,C as discussed below:
1. **Productivity**
➢ "We don't know, what we know"
➢ Raise performance to the level of best
➢ Lessons learnt, best practices, expertise

2. **Responsiveness**
   - ➢ Customers' problem solving, satisfaction, loyalty
   - ➢ Who, what, how, where & why

3. **Innovation**
   - ➢ Rapid conversion of ideas
   - ➢ Brainstorming, learning networks, discussion forums, etc

4. **Competency**
   - ➢ Skills and knowledge development
   - ➢ New staff: how things get done here?
   - ➢ Existing staff: build skills and expertise
   - ➢ Continuing education, mentoring, innovative methods

It becomes clear from above points that KM definitely can contribute to achievement of organizational goals.

Session 2: Educational Initiatives for Water and Sanitation

The second session was scheduled between 11.30 to 13.00 hours. Three presentation were scheduled in current session and the panelist were Dr. Kuntala Lahiri-Dutt, Mr. Vijay Kaushal, Ms. Minaxi Shukla and Mr. Brijpal Patel, and, Dr Yashesh Anantani. The session was chaired by Mr. Mayank Joshi.

WATER at the Australian National University
Dr. Kuntala Lahiri-Dutt, Fellow, Resource Management in Asia Pacific Programme at the Australian National University (ANU).

Before joining the ANU in 2002, Dr. Kuntala was a Reader and Head of Geography department at the University of Burdwan in West Bengal, India. She has a wide range of research interests and expertise; her career began with research on urban and social studies and then took a turn from 1992-'93 to gender, environment and resource studies. In 2003, she established the Gender Water Network.

Dr. Lahiri-Dutt began her presentation by sharing various initiatives related to water education that are currently underway in Australian National University (ANU) and talked about her experiences from working on the issues of WATSAN in Australia. The highlights of her presentation were:

- Australia is the driest inhabited continent in the world and with climate change it may get drier.
- Australia has high per capita use of water, the population being largely concentrated in the major towns along the eastern coast.
- The National Water Commission is one of the initiatives to deal with issues related to water. The Commission is responsible for pushing national reforms and advising the Minister of Water & Environment. One of the problems in managing Australian water resource is that the jurisdiction lies with the State Governments rather than with the Central Government. Consequently, it has been observed by academicians that indigenous perspectives should be at the core of water management reforms and its implementation - especially, in context to the values attached to water and their shaping of the understanding and communication. However, the business council of Australia does not see this as the core of the fundamental 'water reforms'.
- The level of awareness is high regarding the problems faced by community and the issues of scarcity. This awareness is a product of thorough use of media including the newspapers, television network, and print materials like pamphlets, posters.
- Water initiatives make available information on urban water use and reservoir capacity on a daily or weekly basis, mostly through mainstream TV. Along with the weather news, the water news is presented.
- The ANU has a full fledged 'water initiative' that has blossomed from the water committee established in 2003.
- Besides formal water education and awareness building, there are land care and water care groups operating at grassroots levels throughout Australia.

- Australia's public face is still white and the condition of aboriginal communities in particular, has been widely recognized as problematic.

In her presentation, she spelt out clearly that the intensity of the problems/issues in WATSAN is different in the developed and developing world, but in context to the gendered management of water resources, the condition is not very different. But, the problems related to gender and WATSAN have been considered primarily as issues of 'developing' country. She brought to attention of the delegates, the report on 'Gender equality in the Australia's aid Programme – why and how', produced by AUSAID that reinforces the focus on gender issues in WATSAN programmes.

Dr. Kuntala's presentation initiated discussion on environment education initiatives in the primary and secondary schools related to WATSAN. Questions were posed regarding the issues related to knowledge sharing between the developed and the developing countries on topics related to gender and water.

Experience of Nehru Foundation for Development in WATSAN Education
Mr. Brijpal Patel, Mr. Vijay Kaushal and Ms. Minaxi Shukla

Mr. Brijpal Patel is responsible for leading the Human and Institutional Development planning for the Rural Programmes Group of CEE. He has worked in planning and implementing programmes at grassroots level in the area of WATSANWATSANWATSANWATSANWATSAN, disaster management and sustainable livelihoods. His academic training is in Anthropology and Development Studies.

Mr. Vijay Kaushal, Sr. Programme Officer, VIKSAT has worked with the organization for twenty two years. He has vast experience in diverse sectors starting from Integrated Water Resource Management, Joint Forest Management, Disaster and Sustainable Livelihoods. He has also taught Bachelors of Rural Studies at the J C Kumarapa College for three years from 1990 to 1993.

Ms. Minaxi Shukla, Deputy Director CHETNA, is Deputy Director In charge, Child Resource Centre (CRC) at CHETNA. She has worked with CHETNA and NFD for 30 years. Her key areas of expertise are child rights, empowerment of children and adolescents, health education development, child health, child centred education and participatory training on the above areas.

Mr. Brijpal Patel (Programme Coordinator, CEE), made the presentation on behalf of his colleagues at Nehru Foundation for Development (NFD). He shared the historical background of NFD as a parent organization of CEE, VIKSAT and CHETNA. NFD was founded in 1966. The main objective of the NFD is to help create substantial participation of people in thinking and developing ideas/solutions relating to the problems of development. NFD has contributed in development of some of the leading organizations in development space viz. Children's Health, Education, Training, Nutrition Awareness

(CHETNA founded in 1980), Vikram Sarabhai Center for Development Interaction (VIKSAT founded in 1977) and Center for Environment Education (CEE founded in 1984).

Mr. Patel mentioned that NFD associated institutions have taken WATSAN as a cross cutting theme and it has:

- Infused WATSAN messages in school curriculum and in training of teachers
- Developed gender sensitive and child centered communication strategy and IEC material for diverse target groups
- Facilitated implementation of regional drinking water supply and sanitation programmes
- Taken up innovation in design of WATSAN infrastructure facilities
- Contributed in knowledge generation for Integrated Water Resources Management (IWRM)

Mr. Patel enumerated the main issues, based on the experiences gained over a period 25 years by the NFD institutions in WATSAN sector:

- Education is perceived as a stand alone activity.
- WATSAN educational activities are limited to the duration of the project.
- There is lack of attention on non-formal channels of education.
- There are limited efforts for education of service provider and infrastructure planners (based on field realities, experiences gained in the field).
- Majority of initiatives for local institutions' capacity building are project based and lack sustained effort.
- Information doesn't reach the user especially the special need groups unless special efforts are made.
- Absence of institutional mechanisms for sharing experiences amongst key stake holders.
- Reinventing IEC strategy each time.
- Little information/data available with service providing institutions at local level and service providers do not consider "information sharing" as their role.

Mr. Patel shared learning of NFD institutions as follows:

- Campaign mode of information dissemination, through network, strengthens collective learning.
- Use of hybridized media to increase reach and to adapt messages to suit local, cultural settings
- Integrating implementation components in the education strategy for WATSAN
- Successful use of informal channels of education require active participation of primary stakeholders in planning of IEC strategy and materials
- Development of educational materials based on experiences of implementation
- Capacity building of institutions accompanied with building awareness of its stake holders for establishment of new channels of information flow that ensure governance.

Concluding his presentation, Mr. Patel shared following recommendations for WATSAN programs:

- Rural -Urban divide is on the decrease in context to people's aspirations for WATSAN facilities. However, problems and possible solutions are different (in many ways). Therefore, it is important to build in complexities of such situations while exploring avenues for KM as input.
- Rights based education is required to communicate messages that are related to resolution of conflict situations.
- It is important that policy makers at all levels recognize the need for, and invest in, developing a trained cadre for infrastructure development and educational inputs. People from the technical and administrative cadre cannot be expected to perform such roles efficiently and deliver the desired results.
- Develop information and communication technology (ICT) based on WATSAN information/data clearing house. This will help in ensuring that the information is disseminated to the right people, at the right time and right place.
- Develop a dynamic local directory of resources, agencies and professionals in WATSAN sector
- Resource centre at regional level to act as back stopping facilities
- Strengthen established local level institutions and bring together organizations, to pilot initiatives for KM; this will establish channels of communication amongst grass root organization, implementing support agencies (ISAs) and decision makers

Building Capacities for Solid Waste Management in Urban context
Dr. Yashesh Anantani, Consultant, India

> **Dr. Yashesh Anantani** has remained a Professor of Biology at Mumbai University for 18 years before he migrated into the environment and development sector. He has also remained the Executive Director of City Managers' Association Gujarat (CMAG), a pioneering institution in capacity building of municipal institutions. Having published several catalogues on best practices in urban sector, Dr. Anantani is at presently a consultant in development sector.

The rationale for keeping a separate presentation topic focusing on "urban" situation was in view of the fact that the issues related to Solid Waste Management (SWM) in urban areas are different than those of rural areas. Moreover, trends suggest that many villages are acquiring the status of urban areas and will be facing perhaps the same problems in near future. In such a situation, it was thought important to understand the needs of urban areas that can be fulfilled by effective KM interventions.

Dr. Anantani began by stating the provisions in Municipal Solid Waste (Management & Handling) Rules 2000. It is a tool that the citizens can use to demand compliance by the

municipalities. It clearly states the process of primary collection, secondary storage, transportation, processing and disposal of solid waste.

He added that there are regulatory aspects that require educational inputs for various stakeholder groups viz.:
- Littering is prohibited.
- It is inevitable to devise means of collection of solid waste from all areas including slums.
- Community participation is an integral aspect in segregation of waste.
- Organizing awareness programmes for segregation of domestic solid waste, promote recycling or reuse of segregated materials is one of the pre-conditions for successful SWM.

So what are the problems that prevent lower level of compliance in case of SWM? Dr. Anantani highlighted some of the major factors contributing to less effective or even failed SWM:
- Slow data collection and absence of SWM plans in many urban areas
- Landfill sites are not identified and developed as per requirement. It is partly due to constraint of space and 'not-in-my-backyard' mindset
- There are also limitations due to technology, scarcity of required financial resources, and absence of citizens' willingness to participate/ contribute
- Lack of trained/ skilled personnel
- Inefficient systems of governance in general

The speaker emphasized that if the citizens are generators of waste, they can also be the managers. However, because the citizens are not an informed lot, they do not contribute and remain inactive. Due to lack of awareness and enforcement, they do not segregate waste at the source, which is the basic requirement for effective SWM. In other words, the primary stakeholder group does not participate and contribute as expected.

The next important group in the chain is of rag pickers, he said; they manage the waste at the secondary storage location. However, they continue to work in hazardous conditions without health protection and in unorganized manner. This group is also unaware of occupational hazards and it generally has no institutional backing for improving the situation. Dr. Anantani stressed the need for more institutions for training and capacity building which will help in creating conducive environment for efficient SWM.

He pointed out to some of the best practices in the field of SWM with specific reference to capacity building. The examples that he shared included activities carried out by City Managers" Association- Gujarat (CMAG) in India viz:
- Developing SWM plans for cities in the state of Gujarat, India
- Carrying out training programmes for SWM staff members of municipalities
- Exposure visits to share best practice experiences, face to face interaction, and possible replication
- Extending assistance for transfer of best practice

- Research, documentation and dissemination of documents on SWM: standard procurement formats, contracts, specifications of the equipments etc.
- Organizing national level workshop on "designing and construction of scientific, engineered sanitary land fill site"

Answering to the questions, raised in the discussion after presentation, Dr. Anantani said that the involvement of the local community and training for segregation at the local level is a must so that rag pickers and others can take over the process for better SWM.

One of the delegates, Ms. Mugorewera Drocella, shared an example of handling the menace of plastic in Rwanda. Because of political will, it was possible to stop production of carry bags of plastic. The governance machinery (or state) also has to play its regulatory role for improving the environment.

Mr. Mayank Joshi concluded the session by thanking the speakers and reinforcing the role of IEC in WATSAN. He reinforced the role of IEC for enhancing community participation and to strengthen governance.

Session 3: Community of Practitioners (CoPs), Networks, Partnerships

Keeping in view that there are various mechanisms that are emerging for collective learning, sharing of information and knowledge, a separate session was planned to discuss matters related to it. Representatives of different organizations were invited to share their experiences in the areas of CoP, Networking and building Partnerships. The panel for this session constituted of Mr. Arumugam Kalimuthu, Mr. Apoorva Oza and Dr. Jaipal Singh. The session was chaired by Ms. Kumudhu Sumangalie, Gender and Equity Manager, World University Service, Srilanka and Mr. Wasim Wagha, Programme Manager, DAMAAN, Pakistan.

Water and Environmental Sanitation Network (WES-Net India)
Mr. Arumugam Kalimuthu

> **Mr. Arumugam Kalimuthu,** is chair person of the core group for the WES-Net (Water – Environment Sanitation Network – India), one of the most successful internet based discussion forum for WATSAN. He is also Technical Advisor (WES) - Plan International (India).

Mr. Kalimuthu presented the experiences of WES- Net India and began by highlighting the goals of CoP/ network. According to him, the goal of knowledge network is of "sharing information, skills and insights to maximize knowledge transfer, build trust and further innovation". The speaker further mentioned that:
  ➢ KM has to address both implicit and explicit levels of knowledge & information
  ➢ Effective KM has to bring all disconnected groups to a common platform.

He introduced the WES- Net India as a learning alliance of stakeholders in the sectors of Water and Environmental Sanitation. It was established with the objective of improving knowledge sharing and coordination within the sector through focusing on achieving the Millennium Development Goals.

He shared the findings of the needs assessment that was carried out through consultations with various stakeholder groups prior to formation of the network. Some of these are mentioned below:
  ➢ All stakeholders believe that stronger networking can strengthen sectoral alignment and avoid duplication.
  ➢ Representatives of the government appreciate availability of a sectoral platform for engagement with NGOs.
  ➢ Members of NGOs recognize the value of a platform for dialogue with the government.
  ➢ Donor (support) agencies appreciate a platform for dialogue to scale up.

Mr. Kalimuthu listed the key stakeholders of WES-Net India as:
  a. National and state governments
  b. Local governments

c. NGOs and Community Based Organizations (CBOs)
d. Bi-lateral and multi-lateral donor agencies
e. Networks
f. University and research institutions
g. Public Health and Engineering Department training centers
h. Private sector organizations
i. Individual professionals

For identification of activities, WES- Net had carried out an analysis of the activities of other networks. It was found that network's primary activities include: advocacy, capacity building, collaboration, information dissemination and communication, public relations and research. Based on the review of these activities or role of other networks, WES- Net identified some Dos and Don'ts for itself.

Dos:

1. KM to connect people with right information
2. Provide platform for:
   ➢ Sector collaboration
   ➢ Research collaboration
   ➢ Access sectoral data
   ➢ Identify needs for capacity building
   ➢ Communicating
   ➢ Sharing of experiences

Don'ts
   ➢ Implement
   ➢ Research
   ➢ Generate data (primary data collection)
   ➢ Cary out capacity building
   ➢ Programme communication
   ➢ Policy development

The activities that are already undertaken by WES- Net India include:
a. Newsletter (e-news & printed)
b. Discussion platform (UN Solution Exchange)
c. Website (http://www.wesnetindia.org)
d. Research coordination
e. Information hub
f. Advisory service (e.g. the India Water Portal)
g. Coordination & linkages

Mr. Kalimuthu also shared some of the key achievements of WES- Net India and pointed out the challenges that it will have to face in the near future. His presentation touched upon all the important aspects of CoP/ networking: needs analysis, setting the agenda,

evolving relationships among stakeholders, enrolling membership, participation of the members in management of the activities and governance matters, etc.

PRAVAH – Platform to mobilize action for drinking water and sanitation
Mr. Apoorva Oza

> **Mr. Apoorva Oza** is founder member of PRVAH a network of 150 organizations on working in the WATSAN sector in Gujarat. Mr. Oza is the CEO of Agha Khan Rural Support Programme India. He has rich experience of working on natural resource management, village institution development and water resource management.

Mr. Oza was requested to share the experience of PRAVAH. At the outset, he mentioned that PRAVAH is a platform to mobilize action on (issues of) drinking WATSAN. It was formed to operate in the state of Gujarat (India), in which the issues of WATSAN are diverse and complex due to different geo-climatic conditions and unrestricted exploitation of ground water. In addition, the problems related to water are of both - concerning quantity and quality. There remains a lot to be done in the area of sanitation. The second part of the rationale for the platform is the contribution of civil society group/s in the democratic processes of decision making. Mr. Oza pointed out that the civil society network can contribute in many ways:
  ➢ It can educate society.
  ➢ It can articulate problems of community and its solutions.
  ➢ The network can act as a "conscious keeper" and provide feedback to the State.
  ➢ It can make space for NGOs located in remote areas.
  ➢ It can complement strength of different NGOs.

Mr. Oza also shared information on genesis of PRAVAH. Its starting point was a study conducted by Utthan (an NGO) in the year 1994. The study results convinced a group of institutions working in WATSAN sector about need for a network in the state of Gujarat. Therefore in 1996, PRAVAH was registered as an independent network organization. Presently, it is functional through five regional centers and a head office in Ahmedabad.

PRAVAH is a membership based organization. The criteria for its membership is:
  ➢ Any organization (registered or unregistered), or individual
  ➢ Should not be affiliated to any political party
  ➢ Should believe in "vision" and "mission" of PRAVAH
  ➢ Should be willing to spare time for activities of the network

Activities/ programmes carried by PRAVAH include networking, advocacy, research and documentation, information sharing and demonstration of gender sensitive community managed projects.

Some of the achievements of PRAVAH are as under:
  ➢ It has enhanced and legitimized role of civil society in policy and programmes on WATSAN.

- It influenced the government agency for extending financial support for decentralized technology like roof rain water harvesting structure (RRWHS).
- It highlighted the impact of industrial pollution on drinking water and water quality issues in coastal region of Gujarat state.
- It facilitated review of water supply through tankers by groups of women.
- It has published a document called *Jaldisha*- review of WATSAN status in Gujarat
- It has supported review of the "Narmada canal based drinking water pipeline project"

Speaking about impact of the activities undertaken by PRAVAH, Mr. Oza talked about the following:

- Role of civil society is recognized by all the stakeholders including the government agencies.
- The network has recognition at state and national level.
- It has successfully spread the values of decentralized, community managed WATSAN facilities
- It has helped in increasing media awareness on WATSAN issues.

Evolving knowledge network partnership in WATSAN, experience of WASMO
Dr. Jaipal Singh

> **Dr. Jaipal Singh** is the CEO Water and Sanitation Management Organization (WASMO). He is a Joint Secretary, Projects in Water Supply, Government of Gujarat. Prior to this deputation he has served in the Indian Forest Service, Government of India.

Dr. Singh began by stating WASMO's motto - build partnership. He defined partnership as a sourcing strategy that focuses on a long-term relationship built upon mutual trust where the product or service is critical to the business. He added that partnership is beyond simple networks. It requires the commitment of the agents to work together to address the problems and tap the opportunities. This means that they must accept long term structures that work toward sustained commitment to change for the achievement of quality.

He noted that WASMO has built partnerships at various levels in WATSAN sector viz.:
- Primary stakeholders - Water Committees, villagers, CBOs
- NGOs - Implementing Support Agencies
- Other stakeholders at state and national level - Gujarat Water Supply & Sewerage Board, Water Supply Department, research & academic institutions and UNICEF

Dr. Singh stated that WASMO can be seen as a knowledge resource centre. It has various divisions (engineering, communication, hydrogeology, training, water quality, documentation, funding, and, monitoring and evaluation) where professionals are

offering their services. In addition, through its partnership with 74 NGOs, efforts are made to build capacity of its own and the NGO staff who offer services to the water committee and villagers.

Dr. Singh shared the tools employed by WASMO to maintain partnership with NGOs. These are as follows:
- Developed a gradation system of NGOs
- Identified the roles and responsibilities for NGOs
- Dedicated team to facilitate activities of NGOs
- Capacity building of NGO staff on regular basis
- Memorandum of Understanding (MOU) is signed and conditions of it are followed up through performance milestones. But, it is ensured that this doesn't restrict the dialogue and discussion required for a demand responsive programme.

He stated that WASMO has guided its partners, especially the water committees in the process of empowerment. It has ensured that they acquire legitimate place in the administrative and political system. It has mandated the water committees to have representation of minority groups. All water committees have one third women members. Dr. Singh also shared how efforts are made to bring in accountability in the management of water committee. Firstly, *Gram Sabha* (village assembly) is consulted for all major decisions. Second, the accounts of the water committee are periodically checked by members of ISA, WASMO and are audited as per statutory rules. Last but note the least, the information related to WATSAN scheme and its implementation are displayed publicly in the village.

> Dr. Singh, from the WASMO experience drew out the key factors that contribute in developing successful partnership. These are:
> - Creating a bond of trust and demonstrating openness among the partners
> - Work as a team that is ready for consultation to reach towards consensus
> - Respect organizational mission of partner organizations, expectations, & limitations of each other
> - Share responsibilities and risks
> - Effective networking at macro, meso and micro level
> - Create monitoring mechanisms

Some operating principles that help in fostering partnerships that emerge from the WASMO experience were presented. They are:
- networks are purpose driven (mutuality of purpose)
- institutional commitment beyond participation
- partnership is built on 'expertise' and is not based on 'interest'
- develop and strengthen the capacity of partners.

Developing partnership also pose many challenges. Some of them faced by WASMO were shared by Dr. Singh:
- how to remain 'process driven' in spite of 'setting targets'

- translating knowledge of partners in to policy and practice
- moving beyond 'knowledge sharing' to the stage of 'knowledge creation'

The discussion which followed the presentation brought out some important ideas in connection with developing partnerships:

- Educational component/ aspect should precede activities of implementation. IEC should be one of the main components of the project and not an add-on.
- Professionals (experts) should not undermine the value of the knowledge that common people have accumulated through experience
- People who face the problem are in a better position to articulate it. They should hence be provided the space to participate in the assessment of the situation and problem formulation.
- Education/training should equip people with information and skills to effectively participate in different stages of the project cycle

Session 4: Hygiene and Sanitation Education

The session started with a brief introduction by Mr. Ashoke Chatterjee, the session Chair. He pointed out what needed to be changed, and what could be achieved in the next ten years, that has not been done in last ten years. He criticized the emphasis on Water in WATSAN discussion. He emphasized the need to focus discussion on sanitation. Explaining further, Mr. Chatterjee emphasized that hygiene education has to be linked with sanitation awareness. But, the challenge was that how to teach hygiene education, where people do not have access to water.

The scheduled panelists for the session were Mr. Joe Madiath and Mr. Ishwarbhai Patel. In addition, Mr. Chatterjee, to take the discussion beyond the Indian experience, requested Mr. Wasim Wagha from Pakistan, and Ms. Rokeya Ahmed from Bangladesh to share their respective country experiences to enrich the discussion.

Mr. Joe Madiath, (Executive Director, Gram Vikas, India)

The first speaker on the panel Mr. Madiath was requested to present the learning from the Gram Vikas experiences of achieving total toilet coverage in its project villages. There could be no better experience for this than Gram Vikas as it has build the maximum number of toilets in the country, and they have been built in places where it matters.

> **Joe Madiath**, is the Executive Director, Gram Vikas, Orissa, India. Joe Madiath became acquainted with Orissa's rural poor when he led a group of student volunteers from Madras University who were providing relief after a cyclone devastated the area in 1971. He is the first winner of the Kyoto World Water Grand Prize.

Emphasizing the relation between WATSAN, Mr. Madiath remarked that it was ridiculous to talk about sanitation when, to fetch water, a woman had to walk 6 kilometers, spending almost 6 hours per day! He stressed upon the aspects of social equity in access to sanitation facilities. He talked of equality by highlighting the prevalent disparity between men and women, and, the cities and villages.

He was of a view that rural issues of WATSAN remain unresolved due the urban bias in policy. According to him, the rural context has not been sufficiently handled for its specific nature of cultural issues. That context is different from the urban situation and therefore its policies cannot be mutually applied. This in particular needs to be understood by the urban people, policy makers and people in the media. Solutions for the rural areas have to be in line with the rural realities. It cannot be based on the perceptions of those who have essentially an urban experience. It is therefore also important to revive/build the village society.

In context of the planning of sanitation infrastructure and behavior change for its utilization, he stressed the need of participation. He felt that participation of women was central in successful WATSAN planning and implementation. He reinforced this by sharing experiences from the villages, where women have provided the leadership. He

observed that it is due to centrality of women in planning that Gram Vikas has always constructed a bathing facility with the toilet. This is because for women, bathing facility is as equally important as a toilet facility, considering both, the issues of dignity involved in bathing outside, and issues of personal hygiene.

He took the discussion on infrastructure creation further by bringing in the issues related to cost. In Mr. Madiath's opinion, the rural poor should be helped to create infrastructure with best technology available. He raised the question as to why an individual among rural poor shouldn't have a shower in his bath and flowing water tap in his toilet. He asked why we still talk about low cost technology, when it comes to creating infrastructure for the poor.

The key principles identified from the Gram Vikas experience as being integral to the success of WATSAN education programmes:
- Inclusion
- Social Equity
- Establishing village society
- Definition of sustainability
- Gender equity

In conclusion of the presentation, Mr. Madiath reinforced that successful sanitation programmes are not dependent on building toilets but creating mindsets and instilling new practices. According to him, it is essentially an educational process for human dignity, inclusion and equity.

Mr. Ishwarbhai Patel, (Founder, Environmental Sanitation Institute - ESI)

Mr. Ishwarbhai Patel is also the President of Gujarat Harijan Sevak Sangh. In appreciation of his meritorious services in the areas of low cost sanitation, water awareness, services to the humanity and downtrodden classes, he has been awarded about 11 awards including very prestigious 'Padmashri'.

The second speaker on the panel was Mr. Patel. He was requested to present the experience of ESI in capacity building and scaling-up of environmental sanitation. Mr. Patel began with reference to traditional wisdom regarding health practices. He noted that for effective utilization of sanitation facilities, it is essential to integrate the cultural knowledge in planning and design. For this, it is also required to equip engineering institutions and professionals towards cultural aspects of sanitation design.

He talked about the curricula developed by ESI for training the staff of health and sanitation departments and NGOs. He added that educational material has been developed by ESI for sanitation education in schools for teachers. He expressed a need for creating systems to share hygiene/sanitation information, technology and resources.

Commentators

Mr. Wasim Wagha from Pakistan was invited to share practices and experience from his country. He reinforced the comments made by earlier speakers related to cultural sensitivity, respect for traditional knowledge, gender sensitivity and importance of education in sanitation.

He added that most education programmes are not gender sensitive and they reinforce the stereotypes related to gender roles related to WATSAN. He gave the example of illustrations in educational material portraying only girl/women cleaning the toilets.

He reinforced the viewpoint of 'urban versus rural', and suggested that it is not just limited to lack of facilities in rural areas in comparison to the urban areas. He added the aspect of unequal consumption and the exploitation of rural resources by urban users from a distance.

Ms. Rokeya Ahmed from WaterAid, Bangladesh was invited by the chair to give her comments based on the Bangladesh experience of Community Led Total Sanitation (CLTS) programme. She said that in Bangladesh, sanitation received attention in early 90s and engineers, as in most places, designed toilets for rural areas without studying the rural context (people's requirements, perceptions, etc). This first generation programmes led by the engineers were a complete failure.

The sanitation programmes have only been successful when a programme is based on the capacity of the people or when requisite capacities are built for the people to participate. Emphasizing the need to base the activities on the capacity of the people, she pointed out that people should be encouraged to build toilets as per their choice and needs. She said that specific focus needs to be provided on gender sensitive designs of toilets and bathrooms, especially in the context of menstrual management.

She reinforced that the desired target in context to sanitation will not be achieved only by government effort, participation and input from civil society organizations is essential.

In the discussion that followed, Mr. Carter from Africa suggested that WATSAN program should address all those children who are forced to do household work. Participants also discussed about the livelihood issues in WATSAN.

Session 5: Mainstreaming Gender

The second day's proceedings on November 26, 2007, began with the fifth session titled 'The Challenge of Knowledge Management in Mainstreaming Gender in Water and Sanitation Policies & Practices'. Dr. Sara Ahmed (Chair, Gender & Water Alliance-GWA) chaired the session. Introducing the theme, the chair person noted that the main challenge of mainstreaming gender is that the concept of gender is misunderstood as technical, instrumental approach, which can be achieved by PRA (Participatory Rural Appraisal) like tools. The process of gender mainstreaming is a political process that brings about transformation in existing gender power relations. She added that talking of gender also means looking into consideration the impact on men. According to her, the second challenge is 'how do we transform the institutions into the one where knowledge and information fits'?

She noted that women are left out of the formal education system because of the workload, religious practices and at times due to discrimination. This makes it difficult to use tools that require formal education as pre-condition. Therefore, the need is for oral/ informal repository of knowledge dissemination. She added that the dimension of gender is affected by many factors (variables). She requested the panel member to elaborate upon these variables as realized from their work. For the first presentation, the Chair invited Ms. Drocella

Gender Mainstreaming in WATSAN through Capacity Building Initiatives in Rwanda
Ms. Mugorewera Drocella (Ex Minister- Environment, presently Consultant, Rwanda)

> **Ms. Drocella** is a development consultant, and her core areas of consulting are Environment, Gender, Agriculture and Strategic Planning. She is an active member of the Gender and Water Alliance working in the African countries. She has extensive experiences in capacity building of professionals in gender mainstreaming in Integrated Water Resource Management sector.

Ms. Drocella, to set the tone for her presentation, put forth a set of questions:
- Who is in-charge of gender mainstreaming?
- At what level/where should 'gender mainstreaming' take place - policies, programmes, projects, research, institution, business?

Ms. Drocella provided a brief status of WATSAN in Rwanda, to provide a context for what she was going to discuss. According to her, in Rwanda, 56.9% population lives below poverty line, 80% of the diseases are water borne, 64% population has access to safe drinking water and majority of households (94%) use toilets.

Apart from the status, she presented the Government of Rwanda's 2020 Vision and the pillars/ principles are imbibed in the vision:
- Good governance,

- Emphasis on human resources development (HRD),
- Private sector led economy,
- Infrastructure development,
- Productive and market oriented culture
- Economic linkages at international level

She added that issues concerning gender equality, environment, ICT are cross cutting themes in the 2020 vision.

Talking about the achievements of the government Ms. Drocella shared that:
- Article 9 of the constitution of Rwanda guarantees equality between women and males. 30% of the posts are reserved for the women; the parliament has 48.9 % women members.
- Rwanda not only has the gender policy but also has the implementation strategy. Water policy and water code are currently under examination in parliament.

She provided the background to the 2020 vision and achievements of the government to drive home the importance of political commitment for sustainable change, especially from the top leadership. To give a specific example, she shared the understanding of gender mainstreaming in the words of Rwanda's former President.

> "The question of gender equality in our society needs a clear critical evaluation in order to come up with concrete strategies to map future development, in which men and women are true partners and beneficiaries. My understanding of gender is that it is an issue of good governance, good economic management and respect for human rights"
>
> President of Rwanda, Paul Kagame, 1999

Challenges faced during initiation of gender mainstreaming in WATSAN in Rwanda:
- There are lots of commitments made at international, national and regional level but impacts on the ground is very low and there is poor ownership by all stakeholders;
- There are very few gender experts, and the poor collaboration between gender and water experts makes the situation more difficult;
- Understanding related to concepts of gender is poor, even amongst the policymakers. Consequently gender mainstreaming in programmes and budgeting remains limited;
- Planning of activities is not (always) based on gender analysis and reliable statistical data;
- Lack of monitoring & evaluation mechanisms based on well defined indicators;
- Reporting systems doesn't take into account gender disaggregated data;

Ms. Drocella also shared ideas on "how to move from principles to practices". The ideas were divided into three broad target groups - policymakers, researchers and trainers in water, and gender experts.

Educate policy makers and funding agencies:
- Avoid gender neutrality in policies, laws, budgets
- The policies should be based on comprehensive social analysis, including sex disaggregated data
- Make use of existing studies and cases and use the expertise at the local levels for further learning
- Institutionalize the learning and share issues related to gender mainstreaming amongst practitioners, academics and policy makers on gender issues
- Integrate gender mainstreaming in formal and non-formal education
- Mechanisms should be developed to reward positive gender practices

Researchers and trainers in water should:
- Ensure that researchers' knowledge does not remain in isolation, but is shared with local people and policy makers (tailored for their needs)
- Work in multidisciplinary teams including with social scientists and gender experts. This is specifically to enable sharing of knowledge and expertise amongst researchers of different disciplines and practices

Gender experts should:
- Focus on revising the methodologies and tools for different target groups, as per their context and community needs
- Raise awareness and create sensitization on gender approach in water sector
- Communicate information, cases, experiences and research, for use of the gender study centers
- Provide tailored training/capacity building programmes according to specific project and institutional needs.

Gauging Gender Equity in Water Sector
Ms. Seema Kulkarni (Fellow, SOPPECOM, India).

The presentation concentrated on sharing of proposed idea for a status study and monitoring of gender inequities in the water sector across class, class, ethnic minorities in the context of the sector reform in South Asia.

Ms. Kulkarni is an active member of the Gender and Water Alliance who is also the National Coordinator of the Women and Water Network. She is working on a new concept of the Gender and Equity Gauge.

The rationale for the study includes two aspects:

- Water, like land and other forms of property, needs to be recognized as a critical means of production, and rights over this resource becomes an important point for bargaining
- The final goal (of gender equity) is to be able to see more diverse groups of poor men and women
    a) participating in an informed way in water management and planning at different levels
    b) getting control and access over the resource for meeting livelihood needs

The presentation also included review of the status in various countries in South Asia, i.e. Bangladesh, Nepal, Sri Lanka, Pakistan and India. The study is divided into two phases.

The first phase will include:
- Designing the conceptual framework and tools for the study
- Review of policy and literature
- Conducting the study in the sample areas
- A report on gender and water in South Asia

The activities of phase two will include the following:
- Formation of monitoring groups on pilot basis in different parts of South Asia
- Help group lay the basis for policy shift, and help create public recognition towards the gender & water agenda

The speaker also shared information on methods and sampling for the study. She hoped that the study achieves:
- A status report on gender and water in South Asia that covers the entitlements, representation both in the formal laws and customary laws
- A wide network of monitoring groups that becomes a resource for leading a campaign

Challenges on Knowledge Management in mainstreaming gender in water sector in Nepal
Ms. Pranita Bhushan Udas (PhD Fellow, Department of Environmental Science, Irrigation and Water Engineering Group, Wageningen University, The Netherlands)

Ms. Pranita's research is on understanding translation of gender component of water policy in drinking water and irrigation sector. She has experience on tools used in participatory decision making in water and sanitation in Nepal.

The speaker argued that the scope of the definition of gender mainstreaming takes the discussion beyond the household. She presented issues that have emerged at two levels: first, at the field level, and second, at the level of officers who are government missionaries to translate water policy.

She talked about the drinking water study, implemented by Department of Drinking WATSAN with financial support from Asian Development Bank after 4 years of the project completion. The focus of the study was on access and control of water resources. The speaker clarified that practical meaning of gender equity is equitable access and control over water resources. The study findings in terms of changes that were found (after four years) are as follows:

	Before	After
Tap	54	75
Household	399	116
Community tap	51	11
Individual tap	3	64

There is increase in number of taps, but drastic change in number of households covered by the taps. Many community taps were not functioning and there was an increase in household taps. It was also observed that many families used the taps (or hand pumps) in the neighbor's house rather than being dependent on the public (community) taps. This has happened (in some cases) as some families could not pay monthly charges for the water supply.

It was shared by the speaker that both the policy & design can be blamed for the state of affairs. What was attempted was to provide safe drinking water to as many people as possible in limited budget (financial resources). However, what happened at the end was neither majority of the households was covered nor was infrastructure created that could supply water adequately at the public sources. It was found (during the study) that the process of gender mainstreaming starts at the stage of preparing a design of the scheme and not after the water starts flowing in the pipes!

Environmental education focusing on gender mainstreaming should focus on and should help to define the importance of addressing gender issues, particularly in water sector. The speaker also added that the processes of gender mainstreaming need to be understood in the context of the specific sector. Each sector's context, status and nature of problems are different (than other sectors). Thus, the generic understanding of "gender mainstreaming in development" may not be applicable in each sector. This type of generalization or simplistic analysis may be dangerous.

Commentators

Prof. Dr Khin Ni Ni Thein, (Vice President for Development and Resources, Asian Institute of Technology-AIT) shared her experience on – how to link capacity building on gender and equity issues in water management in formal educational institutions.

She shared that one of the ways to do this was to make 'gender and development study' as a compulsory subject for all courses. Another way was to offer it as an elective subject. One of the policy instruments in use at AIT is to make gender and development study

compulsory for certain scholarship awards. She noted that efforts are being made to mainstream gender in water engineering and management through the channel of MDG education. In brief, there are three ways in which gender mainstreaming is attempted at AIT:
1. Through integration in curriculum of various disciplines
2. Through summer courses
3. Through partnership with other organizations like GWA

The key challenge in this mainstreaming is the fear that the institute has regarding dilution of the hard-core aspects of science and technology teachings.

Dr. Kuntala Lahiri-Dutt, from ANU, commented that there are efforts to bring in region specific focus in the activities of GWA. However, there is also the need to globalize. This according to her is important to deal with issues of climate change that have far reaching impact at the global level.

Ms. Thresiamma Mathew, Director, Gender and Development, Jyothi Jeevan Poorna Trust, India shared an example of how women are provided employment opportunity in WATSAN. She suggested, that women can be helped in developing skills for better livelihood opportunities (e.g.: construction of toilets and storage tanks).

Session 6: Policy Advocacy
The thematic session on policy advocacy was chaired by Mr. Arun Mudgerikar, (Project Officer, UNICEF, India). The panel for the session constituted of Ms. Rokeya Ahmed and Mr. Depinder Kapur. Mr. Mudgerikar, in his opening remarks, noted that the task of policy advocacy is similar to the function of a power loom as it is like weaving a fabric from different types of threads. Those who are involved in the work of policy advocacy pick up different threads (issues, ideas, problems…) and try to link them with requirements to articulate the policy needs.

Policy Advocacy on Sanitation-Shifting Outlook **Ms Rokeya Ahmed (WaterAid, Bangladesh)**	Ms. Rokeya Ahmed is a Poverty and Equity Adviser with WaterAid Bangladesh. She is an active member of Gender and Water Alliance. She has substantially contributed to the development of the Community Led Total Sanitation

The first presentation by Ms. Rokeya was based on her experiences of policy advocacy activities of WaterAid Bangladesh for the Community Led Total Sanitation (CLTS) programme for rural and urban areas. Starting from the early days of the programme, she remarked that WaterAid started its pilot initiative from two villages. This pilot was documented and shared with other stakeholders including the representatives of the government. Latter, field trips were organized for those who were interested in visiting the villages. The next step was to build an alliance with other like minded partners. The alliance spread to include several NGO partners and the WSSCC-Bangladesh Chapter joined hands for collaborative action. All of these educational efforts collectively resulted in making sanitation, an important agenda at the national level in the year 2003.

After October 2003, the coverage of sanitation increased very quickly. However, in some areas target and hardware driven approach was followed. So, WaterAid lobbied for developing a National Sanitation Strategy following a participatory process that would provide a framework for common understanding on sanitation and also promote CLTS approach for implementation. The government agreed and WaterAid provided technical and financial support for developing the strategy

According to Ms. Rokeya, the key lessons for policy advocacy learnt from the experiences are:
- Work in the area of advocacy require understanding of the change required in specific objective/s
- Creation of an example of how change in objectives can be achieved is important
- Building alliance is a key to success
- Timely interventions are very critical in order to bring success
- Documenting evidences of success, progress is important
- Consultations/ deliberations among the stakeholders on a continuing basis is an integral aspect of advocacy for desired outcome
- Field visits are very potent tools of education to change the mind set of the policymakers

- Effective communication helps in seeking attention of the policy makers
- Broad based participation of people and civil society organizations add value to the advocacy campaigns
- Advocacy on behalf of voiceless brings legitimacy

Major Challenges of Knowledge Management: Policy Advocacy Challenges of Knowledge Management in WATSAN
Mr. Depinder Kapur, WaterAid, India

> **Mr. Depinder Kapur** is the Country Representative of WaterAid India. He has also worked in Gujarat with the AKRSP – India.

Mr. Depinder Kapur, at the outset, said that information, knowledge and action should not be separated. There are many barriers to knowledge generation: overemphasis on information collection, inability to link with larger agenda of change, limits posed by the context (larger reality) and not having the people at the center.

There are some pre-conditions for 'KM', said Mr. Kapur. Such conditions can be described as:
- being innovative and generating knowledge within the limits of barriers
- not to ignore difficult questions and be 'practical' in developing frameworks/ models
- need to be historical, material, humanist and scientific in our efforts.

The speaker also informed the participants about the challenges of KM at macro level, regarding the status of WATSAN facilities in some of the states of India (in rural and urban areas). Talking about WATSAN challenges, Mr. Kapur said that the questions that need to be asked are:
- What has the national water policy (of India) has achieved?
- What is expected from new policies? (E.g. policy on sanitation)
- What is the role of national plan? (For achievement of WATSAN goals)
- Why legislation on ground water (limiting extraction) is not implemented in true spirit?
- Why are slums left out from urban WATSAN investments or even assessment?
- Why there is no commitment to high quality basic services for poor? Why are standards falling?

Mr. Kapur pointed out the role of knowledge and what to prioritize in WATSAN:
- <u>Learning and knowledge building</u> (impartial, bold, inclusive of diverse opinions, creative yet not shying from expressing concerns)
- Knowledge that helps in <u>improving service delivery effectiveness</u> of ongoing programmes and projects
- Knowledge that helps in <u>creating public opinion in favour</u> of pro-poor policy change

- <u>Institution building, strengthening democratic space</u>, working together in campaigns, networks and organizations – generating and sharing knowledge.

The speaker shared that advocacy should aim for:
- Strong Public opinion in favour of:
  - o Supporting programmes and people's knowledge
  - o Addressing emerging crisis of ground water depletion : policy and budgetary commitments
  - o Pro-poor access and rights : policy and practice of pro-poor approach in urban WATSAN
  - o Making government, utilities and private sector more accountable
- Linkage with mass movements and public action
- Alignment of WATSAN issues in larger political and economic change agendas.

Plenary V: Education for Water Resource Management

The plenary on Education for Water Resource Management was held on the November 27, 2007. The purpose of the plenary was to discuss the recommendations related to water resource management and sanitation emerging from the deliberations in the working sessions. In addition, it had to provide the EE and ESD community the direction to tackle complex issues related to water resources and sanitation through education.

The plenary session was chaired by Mr. Gourisankar Ghosh (CEO, FXB India Suraksha). Dr. Ashoke Chatterjee presented the draft recommendations from working sessions to the plenary panel for their comments. Ms. Lizette Burgers, (Chief of Water and Environmental Sanitation, UNICEF – India) was the key speaker. The discussants for the plenary were, Dr. Frank Odhiambo (Programme Manager, Water Engineering Development Centre – WEDC, UK), Ms. Mugorewera Drocella (Member, Gender and Water Alliance, Rwanda), and Mr. Samer Eid (Youth Representative, Palestine)

The plenary started with Dr. Ashoke Chatterjee presenting the draft recommendations from the working sessions. In his presentation the speaker pointed out that water was one of the cross cutting theme of the conference. In this context, he explained that the recommendations presented by him are consolidated based on the review of all thirty working sessions of the conference. However, he noted that majority of the recommendation had emerged from the discussions in the working session on 'Meeting Challenges of Knowledge Management in Water and Sanitation', as they were exclusively focused on issues of WATSAN.

Ms. Lizette Burgers, (Chief of Water and Environmental Sanitation, UNICEF – India)
Ms. Burgers presentation focused on the issues related to education of WATSAN in schools. The speakers stressed that there isn't sufficient focus on WATSAN in schools. According to her, it was essential for the education and WATSAN sector to be bold and daring in restating its vision for education for WATSAN in schools. According to her a shift was required in the responsibility and accountability for healthy learning environment.

According to Ms. Burgers there isn't lack of recognition for the importance of sanitation. In addition, the importance of hygiene education at young age is sufficiently understood. There are no more efforts required to establish relation between better WATSAN facilities and improved quality of education and health. The need is to reframe the strategy and vision for WATSAN in school.

The problem with existing strategy is that the WATSAN and education sector don't work in partnership. To resolve this issue it is required that the WATSAN sector gives up the role of providing design for WATSAN facilities to educators. The design for school WATSAN should be lead by educators as they know better about their schools requirement. Moreover, they can best visualize complementing educational process to inculcate better hygiene practices. In addition, education department's ownership of the

design process will also enable better maintenance of the infrastructure. According the speaker, the WATSAN infrastructure in school should be an integral tool in education for hygiene promotion, water resource management and solid waste management.

Ms. Burgers stressed that the WATSAN and education sector needs to be bold and daring in its visioning. The benchmarks for the work in school WATSAN should be set high. The WATSAN facilities in school should be a pleasant experience and interesting tools of learning. It is required that the good models implemented by NGOs in various parts of the world should be scaled up to achieve the targets set in the MDGs. According to her, the time is right to dare as WATSAN is on the top of the agenda of various multilateral deliberations.

The speaker requested the EE and ESD fraternity has to go beyond the curriculum design that is academically based. It should aim to provide in education for life skills that lead to practical action. She noted that while it was important for a child to know the global context of problems, but it is essential to educate him on practical skills to solve the same. She stressed the need to focus attention on education that is oriented towards practice.

Mr. Gourisankar Ghosh (CEO, FXB India Suraksha)
The plenary chair limited his presentation to specific comments on the draft recommendations of the working session. He noted that sustainability in management of resources can only be achieved if we start focusing on the resource rather on the infrastructure and the tools to manage it. He added that we loose focus of the larger picture by fragmenting the discussion related to water based on its use and users. EE should stress on holistic resource education. Without this the technology, the institutions and the policies for effective water resource management can not be rightly identified.

Mr. Ghosh talked about the concept of river basin management. According to him water should be thought in the categories of white, grey and black water. This thinking is required to meet the rising need of water against the consistent reduction in fresh water sources. There is a need to identify the process to convert water from one category to another. Specific effort will be required to educate the community to change its practices in a way that it uses less water. Educational efforts will have to focus on empowering the community to manage its water resources in a way that it adapts to the scenarios of climate change.

The speaker's message to the EE and ESD community was to distill key messages for water resource management. He highlighted the need for simple message. First, water is at centre of development and we cannot afford to mismanage it. Second, it is necessary to decentralize the responsibility of water management to community. Mr. Ghosh ended by stressing the need for centrality of children and women in the activities for water resource management.

Mr. Ghosh after his brief presentation invited the discussants to give their comments on the recommendations.

Dr. Frank Odhiambo (Programme Manager, Water Engineering Development Centre – WEDC, UK)

Dr. Odhiambo, started by saying that there is no shortage of knowledge. People need to learn to use knowledge appropriately. According to speaker, KM is a very troublesome concept. This is because every one has a different concept about it. But, in simple terms KM is about creating a reflexive organization that can step back and reflect to solve its problems. Second, KM is about management of information that enables efficient and prompt retrieval of information. In WATSAN sector information management is of key importance as there is ample scattered information but little evidence. It is the role of KM to manage information in a way that leads to creation of evidence for prompt decision making. The speaker remarked that WATSAN educators are very good at advocacy for policy makers but are not very good at advocating to fellow professionals. In this context, he highlighted the importance of engaging with others on their terms to understand and share perspectives and experiences.

Ms. Mugorewera Drocella (Member, Gender and Water Alliance, Rwanda)

Ms. Drocella is also the former Minister of Environment, Rwanda in her response to the draft recommendations highlighted the below points.

- Programmes/ activities should encourage parents to get in involved in WATSAN activates
- Planners in the government should ensure that no cities come up in geographical areas where availability of water is a problem (black water area)
- Effective coordination between ministries is critical in solving problems of water resource management
- Children should be involved in implementation of activities where in new technologies are used, like the use and maintenance of rain water harvesting and other sanitation & water structures)
- Availability of financial resources is a pre condition for maintenance of the WATSAN facilities.

Mr. Samer Eid (Youth Representative, Palestine)

Mr. Eid, started by talking about water and survival, especially in the context of scarcity in Middle East that is compounded in case of Palestine by war. He suggested instead of ESD it should be ESDS, meaning Education for Sustainable Development and Survival. Taking the case of his country where there is no ministry for water resources he talked of the role of youth in water resource management. Bring in the issues of equity and governance he requested the EE and ESD community to provision for training of youth in water resource management. This according to the speaker will enable the youth and their organizations to rightly negotiate for equitable and sustainable use of resources.

The plenary was concluded by chair Mr. Ghosh with a vote of thanks to the plenary panelists.

Recommendations

After receiving the comments on the draft recommendations from the plenary panelist of 'Education for Water Resource Management', the final list of recommendations were prepared. These recommendations are presented below

1. *Overview Session*

   ■ Current efforts at decentralization and scaling up in the water and sanitation (WATSAN) sector need to be intensified and integrated. The convergence of drinking water, sanitation and hygiene is still to emerge. In this context, the importance of knowledge management (KM) demands recognition. Water users in particular, need KM resources, support and skills in their efforts to assume and discharge new responsibilities.

   ■ 'Knowledge Management' is a phrase constantly used and constantly confused with information management and the application of information and communication technology (ICT). While KM includes these aspects, it is distinct in its understanding of knowledge as an individual, intellectual process. There is an urgent need to understand KM correctly, and thus to use it more intelligently.

   ■ KM should be respected and used as an essential component of democratic governance, and as important to achievement of goals of justice and equity in WATSAN access and control.

   ■ The capacity for KM that exists at community levels should not be underestimated. This is thus the bottom-up and top-down processes are interdependent. A willingness to learn is as important therefore as the ability to teach.

2. *Educational Initiatives for WATSAN*

The sector's priorities need to be carefully integrated into environmental education efforts, as in the case of water education now underway in Australia. This can involve:
- Understanding and using behaviour change processes at every level of decision making.
- There is a need for innovative opportunities to constantly update the knowledge of teachers and trainers in the sector
- Change in behavior of service providers who consider knowledge sharing as a favor
- Re-education in the sector becomes important to the sector as service providers are technology driven rather than seeing themselves as facilitators
- Citizens should be encouraged to be managers of waste, and not seen as only its producers.

- The goal of educational and advocacy efforts must be able to mobilize diverse groups of poor men and women to participate in water management and planning at different levels to gain real control over the resource for meeting livelihood needs.

3. *COPs, Networks, Partnerships*

Information Technology applications needs emphasis as it provides new opportunities for developing networks in KM, as in the Wes-Net example in India.

Dissemination skills need to be fostered and encouraged if WATSAN institutions are to develop and evolve as KM/knowledge resource centers. For this the group recommended:
- Coalition approach rather than creating new organizations.

To flourish, resource systems/centers require systems of joint ownership that can encourage transparency of information gathering, dissemination and use. The PRAVAH (www.pravah-gujarat.org) network of WATSAN NGOs in Gujarat is a useful example. Networks should function as champions of knowledge creation, based on sound research, and engage in wide dissemination

4. *Hygiene & Sanitation*

- Sanitation promotion cannot succeed without access to water. Shrinking water sources seriously threaten sanitation promotion and action, demanding priority attention to conserving and replenishing our diminishing water resources.

- Sanitation success depends on re-constructing minds, not just constructing toilets. Solutions and approaches that seek hygiene attitudes and behaviors succeed only when they are based upon and sensitive to local conditions and cultures. Success in seeking sustainable sanitation actions thus depend on this sensitivity, rather than the one-size-fits-all approach that remains all too common.

   This demands (a) listening to households and communities in order to draw on traditional wisdom before setting plans and agendas for action and (b) reaching and involving engineering institutions and professionals toward the social and cultural imperatives of sanitation action.

- Education efforts in hygiene and sanitation deserve priority as essential not only for improving health, but equally for their importance in fostering human dignity, equity, inclusion and empowerment.

- Schools are the essential catalyst of change. This demands urgent attention to the need for every school to have basic sanitation facilities, separately for boys and girls that can give credibility to hygiene education in the class room. Schools should inculcate the dignity of labour in sanitation tasks, including cleaning toilets and other waste.

- The preventive aspect of WATSAN education needs to be promoted to ensure priority for the resources required to take WATSAN activity to scale, by stressing its powerful impact on human health and productivity.

- Systems are needed that can encourage access to hygiene/sanitation information, technology and resources. Wes-Net (www.wesnetindia.org) in India is one of several good examples that can be replicated worldwide.

- Several institutions around the world have developed curricula and materials for hygiene and sanitation education and training (e.g. ESI in Ahmedabad, India – www.esi.org.in). Networking is needed to encourage the sharing of these resources and experience.

- Networking for urban sanitation demands greater attention, as current experience in problem-solving is limited. Access to documented experience, technology options and training facilities are required on a much larger scale than presently exists.

- The concept of private-public partnerships is particularly important and appropriate to urban WATSAN, where the scale of required investment is quite distinct from rural WATSAN.

- There is a divide on matters of urban and rural WATSAN that requires to be urgently bridged. Greater equity is needed in matters of determining need as well as in ensuring access to technologies and financial resources.

- Women's WATSAN requirements need the most urgent attention, and these should include the requirements of bathing spaces and menstrual hygiene that are most often ignored.

- Efforts to control child morbidity and mortality need to take WATSAN into account.

- The WATSAN needs of a growing number of children who have to survive outside of secure home environments demands urgent attention.

  Encouraging the wearing of shoes can be an important means for reducing the spread of infection.

- The recommendations from this Conference should be integrated into current planning for the SACOSAN Conference of South Asian Ministers in 2008.

- Utilize the opportunity of 2008 as the UN International Year of Sanitation

5. *Mainstreaming Gender*

- Misunderstanding persists on the meaning of 'gender' and 'gender mainstreaming', even at higher levels of decision-making. The first task is to ensure that these concepts are clear and shared consistently by all stakeholders.

- The inadequacy of data, reporting systems and indicators for monitoring and evaluating activity toward mainstreaming agenda is a need that must be urgently addressed. There is a need for M&E that can effectively monitor gender issues at every stage of the project cycle, rather than being applied at the end of the project.

- Formal and informal channels of education need to be actively engaged if gender issues are to be integrated into social consciousness.

- Mainstreaming gender must be acknowledged as an integral part of good governance, demanding a high level of political will.

- There is need for studies through water institutions at every level to determine issues of access from a gender perspective. Gender studies needs encouragement and integration through formal education systems, as one essential element within environmental learning.

- There is a need to involve men more actively in the gender dialogue, which is still confused as dealing exclusively with women rather than on relationships and harmony between genders.

- Livelihood needs of men and women need to extend beyond drinking water to recognizing water as a means of production (e.g. livestock, crafts).

- GWA's 'Equity Gauge' now under development in South Asia as an analytical tool for gender/water studies should be widely shared. (The tool looks at work patterns, water entitlements, cost-sharing, participation in decision making, employment benefits, skills and capacities as well as the reasons for gender inclusion or exclusion).

- Systems of reward for positive gender practices are needed as an incentive to accelerate understanding and application of good practices.

6. *Advocacy for Policy Action & Change*

- The key to effective advocacy action is joint action towards specific change objectives. This demands the preliminary of public advocacy before policy advocacy.

- Advocacy is a skill that must be learned. Developing advocacy skills (including dialogue) is a key need, still nascent in most of civil society. Opportunities for

building the capacities required for effective advocacy need to be identified and developed. Essential for this is the understanding of behavioral process.

■ Training in advocacy in the 'south' should draw increasingly on southern examples and learning that reflects the experience of developing societies, rather than continue to be based on 'northern' models.

■ Knowledge institutions, such as those of research and management, need to be brought closer together to promote inter-disciplinary sharing that can strengthen the cases that are built for advocacy.

■ A sound knowledge base is the first essential for effective advocacy. Therefore KM know-how is a key element that can depend on an ability to sift the assumptions on which key decisions are often based. These can often be inaccurate. A foundation of sound research (including action research) thus needs to be assured for advocacy campaigns.

■ Advocacy is a continuous process, not a one-time shot. Therefore mechanisms for feedback and sharing, particularly from and to the voiceless on whose behalf advocacy is conducted, are of critical importance.

■ Demonstration needs recognition as the most powerful tool of advocacy.

■ The sanitation sector should be seized by civil society as a space available for advocacy through demonstration. Unlike water, it has not yet been seized by the powerful.

These thematic recommendations have feed into the process of developing the overall conference recommendations. The conference recommendations adopted by all the delegates of the conference on the November 28, 2007 can be found on www.tbilisiplus30.org.

The Ahmedabad Declaration 2007
A Call to Action Education for life: life through education - 28th November 2007

This declaration was developed from the 24th to the 28th of November 2007. The drafting process involved more than 1,500 participants from 97 countries at the Fourth International Conference on Environmental Education. The conference was sponsored by UNESCO, UNEP and the Government of India and was hosted by the Centre for Environment Education at Ahmedabad, India. Since the first international conference was held in Tbilisi, Georgia, in 1977, conferences have been held every ten years, in Moscow in 1987 and in Thessaloniki, Greece, in 1997. This declaration was drafted in the context of the UN Decade of Education for Sustainable Development.

Our vision is a world in which our work and lifestyles contribute to the well-being of all life on Earth. We believe that through education, human lifestyles can be achieved that support ecological integrity, economic and social justice, sustainable livelihoods and respect for all life. Through education we can learn to prevent and resolve conflicts, respect cultural diversity, create a caring society and live in peace. We can learn from indigenous and traditional patterns of living that respect and honour the Earth and its life-support systems and we can adapt this wisdom to our fast-changing world. We can make individual, community, national and even global choices with due consideration for the collective good. Individuals including youth, civil society, governments, businesses, funding partners and other institutions can appreciate that their daily actions can shape a viable future of which all can be proud.

Ever-increasing human production and consumption is rapidly undermining the Earth's life-support systems and the potential for all life to flourish. Assumptions about what constitutes an acceptable quality of life for some, often means deprivation for others. The gap between rich and poor is widening. The climate crisis, loss of biodiversity, increasing health risks and poverty are indicators of development models and lifestyles that are unsustainable. Alternative models and visions for a sustainable future do exist and urgent action is needed to make them a reality. Human rights, gender equity, social justice and a healthy environment must become global imperatives. Education for Sustainable Development is essential to making this transformation.

Mahatma Gandhi said, "Let my life be my message." The example we set is all important. Through our actions, we add substance and vigour to the quest for sustainable living. With creativity and imagination we need to re-think and change the values we live by, the choices we make, and the actions we take.

We must reconsider our tools, methods and approaches, our politics and economics, our relationships and partnerships, and the very foundations and purpose of education and how it relates to the lives we lead. In making our choices we draw on, and are inspired by, much work that has gone before us, including the Earth Charter and the Millennium Development Goals.

Environmental Education processes support and champion Education for Sustainable Development. Such education processes must be relevant, responsive and accountable.

Research is encouraged to provide additional rigour and credibility and to identify increasingly effective methods of learning and sharing knowledge.

We are all learners as well as teachers. Education for Sustainable Development encourages a shift from viewing education as a delivery mechanism to a lifelong, holistic and inclusive process. We pledge to build partnerships and share our diverse experiences and collective knowledge to refine the vision of sustainability while continually expanding its practice.

In a world with increasing capabilities to network, we embrace our responsibilities and commit ourselves to carry forward the recommendations from this conference. The United Nations system and governments worldwide need to support Environmental Education and develop sound Education for Sustainable Development policy frameworks and commit to their implementation.

We urge all people to join us in pursuing the principles of sustainability with humility, inclusivity, integrity and a strong sense of humanity. We move forward from Ahmedabad in a spirit of hope, enthusiasm and commitment to action.

Annexure 1

Member of Advisory Group for the Working Session 'Meeting Challenges for Knowledge Management in Water and Sanitation'

- **Dr. Sara Ahmed**
  Director
  Action Research – Gender
  Dr. Sara Ahmed has been working on the political economy of water in India since 1986. Her doctoral dissertation (University of Cambridge, 1991) focused on culture and the politics of ritual purity and participation in the 'cleaning' of the River Ganga at Varanasi. Between 1992-2002, she was on the faculty of the Institute of Rural Management, Anand (IRMA) Gujarat, teaching courses in rural development policy, environmental management issues and gender, development and institutional change.

- **Ms. Nafisa Barot**
  Executive Director
  Utthan

- **Dr. Ashoke Chatterjee**
  Consultant – Media and Development

- **Mr. Mayank Joshi**
  Consultant

  Mr. Mayank Joshi has worked in various institutions- educational, industrial and NGO. He has worked in various sectors in development field: natural resources management, WATSAN, disaster management. Capacity building for community mobilization, organization development is of special interest for him. He is actively involved in Resource Center Development (RCD) initiative of IRC, The Netherlands. He is also Coordinator for Inter Agency Group (IAG), Gujarat for strengthening capacities for disaster response. He is going to provide us the overview of the sector in context to knowledge management.

- **Mr. Depinder S Kapur**
  Country Representative
  WaterAid India
  Mr. Depinder Kapur is the Country Representative of WaterAid India. He has also worked in Gujarat with the AKRSP – India.

- **Mr. R. K. Sama**
  Project Director
  WASMO

- **Mr. Arun Mudgerikar**
  Project Officer

UNICEF

Annexure 2

Recommendations from Important Water and Sanitation Conferences and Forums

S No	Name of the Event	Place	Document from the Event	Date	URL
1	**The United Nations Conference on Environment and Development**	Rio de Janeiro	Rio Declaration	**1992**3 to 14 June	http://www.unesco.org/education/information/nfsun
2	**2nd World Water Forum** on water security in 21st century, The Hague	Hague, The Netherlands	Ministerial Declaration of The Hague	**2000**22 March	http://www.worldwatercouncil.org/fileadmin/wwc/Li
3	**Global Forum in Foz do Iguacu**	Foz do Iguacu, Brazil	Iguaçu Action Programme	**2000**November	http://www.wsscc.org/pdf/events/iap_booklet_en.p
4	**International Conference on Freshwater**	Bonn	Ministerial Declaration	**2001**4th December	http://www.water-2001.de/
5	**African Sanitation and Hygiene Conference 2002**	Johannesburg (Midrand),South Africa	Final Statement	**2002**29th July to 1st August	http://www.sanicon.net/pdf/statement.pdf
6	**3rd World Water Forum**---Message from the Lake Biwa and Yodo River Basin---	Kyoto, Japan	Ministerial Declaration	**2003**23 March	http://www.mlit.go.jp/tochimizushigen/mizsei/wwf3
7	**SOUTH ASIAN CONFERENCE on SANITATION - SACOSAN**	Dhaka (Bangladesh)	REPORT OF GWA PARTICIPATION INSOUTH ASIAN CONFERENCE on SANITATION	**2003**21-23 October	http://www.genderandwater.org/content/download/
8	**Commission on Sustainable Development** Twelfth session **CSD 12**	New York	Report of the Secretary-General	**2004**14-30 April	http://www.citizen.org/documents/AnnanonWater.p
9	**Global Forum, Dakar, 2004**Water, Sanitation and Hygiene for All, Solutions and Actions; Local and National	Dakar, Senegal	Dakar Forum Proceedings	**2004**29 November – 3 December	http://www.wsscc.org/pdf/publication/Dakar_Forun
10	**ADB 2nd Water Week 2004**Water for the Poor: Setting the Rules and Finding the Money	ADB Headquarters, Manila, Philippines	4 Days of Meeting	**2004**26-30 January	http://www.adb.org/Documents/Events/2004/Wate
11	**Commission on Sustainable Development** Thirteenth session **CSD 13**	New York	Report of the Secretary-General	**2004**10 December	http://www.gpa.unep.org/documents/sg_report_sa

12	**International Conference on Education for a Sustainable Future**	Ahmedabad, India	Recommendations of the workshop on water and sanitation	**2005**18-20 January	http://ceeindia.org/esf/p_wk5.asp
13	**4th World Water Forum**	Mexico City	MINISTERIAL DECLARATION	**2006**21-22 March	http://www.worldwatercouncil.org/fileadmin/wwc/W
14	**International symposium in Dakar, Senegal**	Dakar, Senegal	The Dakar Declaration: Towards an Improved Faecal Sludge Management (FSM)	**2006**9-12 May	http://www.eawag.ch/organisation/abteilungen/sar
15	**SECOND SOUTH ASIAN CONFERENCE ON SANITATION (SACOSAN-2)**	Islamabad, Pakistan	ISLAMABAD DECLARATION	**2006**20-21 September	http://www.livelihoods.org/hot_topics/docs/CLTS_
16	**39th Annual Meeting ADB**	Hyderabad India	Summary of Proceedings of the Thirty-Ninth Annual Meeting of the Board of Governors	**2006**	http://www.adb.org/AnnualMeeting/2006/Brochure

Annexure 3:
List of Participants

S No	Names	Affiliation	Designation	Address	
1	**Mr. Joe Madiath**	Gram Vikas	**Executive Director**	Orissa, India	gramvikas@gma
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51	**Mr. Ishwarbhai Patel**		Founder	Gujarat, India	
52	Ms. Thresiamma Mathew	Jyothi Jeevan Poorna Trust	Director, Gender and Development	Kerala, India	
53	Ms. Vandana Pandya	WASMO	Manager	Gujarat, India	