



The biggest water challenges that the world faces today

The biggest challenge is that knowledge and awareness do not create the needed change. Water is political, and in most places, the tough political issues are not being addressed, so the problems, if anything, are getting worse.

Incentives often work backward to what we need to create: petroleum subsidies reduce the attention on nontraditional energy which could deliver water with less carbon cost and energy use. New crop science that is water sparing works less well when there is no incentive to save water. Politicians have no incentive to reform water systems if they will be voted out for their pains.

We also haven't solved the basic economic dilemma: the poor still pay more for less drinking water. Phnom Penh and Entebbe, both very challenging places, show that it is possible to have well-managed water systems that can offer the best deal to all.

- Margaret Catley-Carlson
in her interview with
Cezar Tigro, ADB Web Writer
Source: (www.adb.org)

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Cities and Climate Change Initiative (CCCI) in Asia-Pacific Region

Asia is known to be the region most affected by disasters, experiencing 90% of the world's weather-related deaths since 1990. Rapid urbanization has left more than 70% of the urban population in Asia and Small Island Developing States in the Pacific (SIDS) located in areas prone to flooding. This has contributed to the region's vulnerability to natural and man-made disasters which will be further exacerbated by climate change.

UN-HABITAT launched the Sustainable Urban Development Network (SUD-Net), an innovative network of global partners, promoting inter-disciplinary approaches to sustainable urban development. The Cities and Climate Change Initiative (CCCI) is the flagship programme of SUD-Net. The initiative aims to strengthen the climate change response of cities and local governments. Cities are key drivers of climate change due to their high energy consumption, land use, waste generation and other activities that result in the release of the vast majority of greenhouse gases. At the same time, it is cities, and in particular the urban poor, in the developing world, that are most vulnerable to and have the least resilience against, for example, storms, floods, and droughts. Cities need to respond to Climate Change by cutting their greenhouse gas emissions (mitigation).

The CCCI regional strategy aims to have 300 cities in Asia and the Pacific with enhanced climate change plans to increase resilience and to reduce greenhouse gas emissions by 2015. This objective is to be achieved in partnership with other support programmes such as the Asian Development Bank, the World Bank, the Rockefeller Foundation, bilateral development partners, UN agencies, NGOs and academic institutions. The strategy has a three pronged approach:

1. Support city level Climate Change adaptation and mitigation action with support for revised urban plans.
2. Support a national climate change and urban policy review in order to strengthen the national response to the urban dimension of climate change.
3. Support the setting up of Asia-Pacific-wide advocacy, knowledge management and capacity development institutions which will support cities in their efforts to address climate change.

The first implementation phase (2008-2010) of SUD-Net-CCCI provides towns, cities, national governments as well as their stakeholders with pertinent information on climate change responses for human settlements. Four countries (Mozambique, Uganda, Philippines and Ecuador) were selected through a comprehensive demand-driven and participatory approach, with four cities (Maputo, Kampala, Sorso-gon and Esmeraldas) piloting initiatives through local counterparts and networks.

Learning from these experiences, CCCI-Asia/Pacific was launched early 2010 to disseminate, replicate and up-scale these country and city experiences amongst UN-HABITAT's regional network of partners in China, Fiji, Indonesia, Mongolia, Nepal, Papua New Guinea, Samoa, Sri Lanka, Vanuatu and Vietnam, with 10 new cities carrying out participatory assessments of their vulnerabilities to climate change. Country level advocacy activities are being supported to highlight the importance of the urban sector in national climate change response policies and guidelines, supported by initiatives with Local Government Training Institutions and Universities in the region to mainstream climate response capacity-building into their support programmes.

It is planned that the number of cities supported will grow in phases upto 2015. In addition, national legislative reform processes will be supported from 2011. At the regional level, advocacy, knowledge management, capacity building and technical assistance will be provided together in collaboration with regional partners. Fundraising for the strategy is currently under way.



CCCI activities have commenced in 11 countries in the Asia and Pacific Region, 2010. Photo © UN-Habitat

UN-HABITAT Afghanistan Celebrates the World Habitat Day 2010

On 4th of October 2010, it was a great honor and privilege for UN-HABITAT Afghanistan to celebrate the World Habitat Day at its Head Office in Kabul, Afghanistan. UN-HABITAT invited all staff based in Kabul to congratulate them on their efforts to achieve project activities under difficult security condition in 20 provinces across the country of Afghanistan by promoting people's process approach and empowerment of communities. In addition to the Head Office in Kabul, both female and male national staff and international staff who were on mission met together to celebrate the World Habitat Day 2010 in Mazar-e-Sharif with a theme of "Better City, Better Life."

In Kabul, Mr. Jan Turkstra, Country Representative a.i., congratulated for the World Habitat Day 2010 and hailed the achievements made by all the staff working not only in Kabul but in other provinces as well. In his message, it was addressed that "although we had been facing a challenging security environment which had put our staff in the fields in a difficult condition to work, all the endeavors to implement projects would be supported and UN-HABITAT thus calls upon all staff to join hands on to achieve goals of the projects in Afghanistan". In Mazar-e-Sharif, the World Habitat Day 2010 was also widely celebrated in Balkh Province of Afghanistan where high ranking government officials were invited to participate in this special occasion on 4 October 2010.

The celebration ceremony was convened with an opening remark by the Provincial Manager of Balkh Province followed by several other speeches from the government officials and other UN-HABITAT staff. In the speech, it is remarked

that excellent work of UN-HABITAT had been highly appreciated by all partners as well as the governments such as Municipality of Mazar-e-Sharif, Department of Rural Rehabilitation and Development, the Provincial Council of Balkh, Department of Women Affairs, Department of Education, UNAMA and the Department of Religious Affairs. One of the partners said that with UN-HABITAT's philosophy, we had been working with the community, learning from the community and trusting them over the years." Head of Women Affairs Department, Mrs. Fereba Majeed, who was a UN-HABITAT staff in late 1990, said that UN-HABITAT is a family in which every member dedicates his/ her life in the service of people and community. It is the only agency in Afghanistan who has been working closely with communities in a practical approach of people's process.

Mrs. Robaba, who is a representative of the Provincial Council of Balkh and has supported the efforts of UN-HABITAT in Bamiyan and Balkh for a long time, addressed, "I have known this agency for a long time and have worked closely with its staff members. They have been really investing in human capital and helped explore economic opportunities in local communities. I pray and hope that they continue to their good work in a safe environment."

UN-HABITAT Mazar-e-Sharif started its first phase of operations during the Taliban regime in 1996. It has since then implemented projects that extended its reach to both the urban and rural communities. UN-HABITAT in Mazar-e-Sharif, like other provinces, has a credible record of working as a catalyst for the people, with the people and by the people.

2nd Expert Group Meeting on Technical Cooperation for Sustainable Environmental Development in Asia and the Pacific Region

On 30th September 2010, experts in the field of energy across Asia gathered in Fukuoka, Japan to discuss situations and issues related to energy in Asian cities and the potential technical solutions which could be offered from the private and public sectors in Japan.

This expert group meeting was organized by ROAP as part of a Technical Cooperation Project for the objective of enhancing sustainable environmental development of Asian Cities. Ten representatives from both national and city governments, academia, representatives from Water for Asia Team and Habitat Programme Managers addressed the current situations and issues relating to energy in their respective countries and cities such as unfair distribution of power within the country or within cities, unavailability of resources or lack of capacities to establish a stable energy policy, and concerns on the burden to the environment some of the current and traditional energy is causing.

In response, a number of unique and realistic solutions were introduced from the Japanese experts both from the public and private sectors. Just to name a few, a highly reflective coating paint, which enables reduction of heat from the



Experts deliberating during the EGM in Fukuoka, 2010. Photo © UN-Habitat



Other participants of the EGM in Fukuoka, 2010. Photo © UN-Habitat

roof of buildings by up to 30% which contributes to promotion of energy efficient buildings and reduction of CO₂. Others such as generating power from poultry litter biomass, solar cookers which collects sunlight to household level small and portable and low cost solar panels, building waterwheels using only locally available materials and by training local people, solar and geothermal powers were introduced.

From the local governments of Fukuoka, the prefecture government's hydrogen strategy project – where 150 households are running on hydrogen power; largest pilot scale in the world—and Kitakyushu City's latest efforts in creating a low carbon society across Asia, as well as Ooki Town, where the town operates its own bio gas facility under highly efficient waste collection and management policies in a very participatory process.

As a follow up of the Meeting, a few technologies will be selected and will be applied to the participating countries on a pilot scale early 2011. Results of these pilot projects and information will be available on the UN-HABITAT ROAP website >> <http://www.fukuoka.unhabitat.org/kcap>

International Conference on “Hanoi Millennium: City Past and Future”

The International conference on "Hanoi millennium: City Past and Future" was organized on October 12-13, 2010 in Hanoi by the People Committee of Hanoi, Vietnam Urban Planning and Development Association, University of Hawaii's Globalization Research Center and UN-HABITAT to discuss the strategies to address urban challenges and to build up Hanoi as a sustainable city in which the cultural is preserved and absorbed in the modernization process. This conference was a key event for Hanoi's 1000th anniversary & a practical activity to celebrate World Habitat Day on the theme of "Better city, Better life".

According to Mr. John Hendra, Resident Coordinator of the United Nations in Vietnam, there are two very different urbanization scenarios for Hanoi to choose: "In the first scenario the city will fail to meet the needs of its urban citizens. In such a city, many people will live in sub-standard housing and informal settlements, in poorly planned areas where they have little access to basic quality services. Many will end up as migrants, working in the informal economy, and only a minority will be able to realize their productive potential. Such a poorly planned city runs the risk of becoming a dysfunctional metropolitan. In the second scenario, urban challenges are openly debated in public policy discussions. The necessary resources for smart urban growth are available, through both public and private investments. This is the kind of city where careful and rational land use planning is in place, as well as good local governance and efficient urban management, improved access to good infrastructure and basic services, and where technology is used to manage environmental stresses. This green, sustainable city is more resilient to natural disasters and creates jobs and opportunities for its residents, provides decent shelter and helps more people out of poverty." This conference was one of many efforts to put Hanoi at the initial stage of this second scenario.

The conference reviewed many challenges that Hanoi is facing. But in this special time when Hanoi is celebrating 1000th year anniversary, effort to complete the preparation of the Master Plan for Hanoi capital to 2030 become even more necessary.

Mr. Daniel Biau, Director, Regional and Technical Cooperation Division, UN-HABITAT, indicated in his opening address: "The greatest challenge is to define a vision of sustainable and inclusive development whereby Hanoi becomes a positive reality for everyone, not just for urban planners and managers. As urbanization is to continue, in the future Hanoi should function more effectively as the capital of the country and the engine for regional and national development. The significant challenges that the new Plan should address include:

- * to improve competitiveness not only nationwide but also in the region (Hanoi 2009 provincial competitive index is pretty low – ranked 33 among 63 cities and provinces),



Mr. Daniel Biau, Director, Regional and Technical Cooperation Division, UN-HABITAT speaking at the International Conference in Vietnam. Photo © UN-Habitat

- * Development of the other side of the Red River and the Hanoi-Haiphong corridor,
- * Provision of housing for the population of a region of about 10 million people by 2030,
- * Provision of urban infrastructure and services including well-functioning transportation system, water supply, sanitation, drainage, solid waste collection and treatment, education and health care,
- * Potential impacts of climate-related disasters, particularly on the urban poor and the vulnerable groups.

Hanoi's planners have to find a fair balance between economic growth and competitiveness of the city on the one hand, and the protection of its natural wealth and built environment on the other".

During the conference, participants from 8 countries including USA, Canada, France, Singapore, China, Holland, Japan and Vietnam presented and discussed in many thematic panels. They are The city in Transition, Historic Preservation, Climate Change and Sustainable Urban Development, Migration- Reshaping Architecture & Urbanization, Participatory Planning, Peri-urban Transformation, Livable Cities, Public Space, Transformation, Environment and City Region, which are inter-related aspects that Hanoi can use to guide its future development.

Workshop on “Urban Indicators and Urban Management in Vietnam”

The Association of Cities in Viet Nam (ACVN) and UN-HABITAT organized a workshop on “Urban Indicators and Urban Management in Vietnam” on November 7th, 2010 with joint target of setting up a data system for monitoring and evaluating performance of cities/towns in Vietnam, particularly medium and small cities and town, aiming to creating a developed, equal and non poverty society. The workshop was also in conjunction with the Anniversary of the Vietnam Urban day (the 8th of November 2010) in Ninh Binh city with over 700 participants from 96 cities and towns which are members of ACVN, central government management bodies (General Statistics Office of Vietnam, the Vietnam Ministry of Construction), international organizations, professional and social associations, and experts on relevant fields.

The workshop introduced Draft Vietnam Urban Indicators divided into themes, and each theme had specific thematic indicators selected from the reviewed indicator systems. It is a collection of indicators about: labour; housing; urban poverty; education; healthcare; culture; safety; land use; ground altitude and storm water drainage; transportation; power supply, communication, water

supply, wastewater drainage, solid waste treatment, cemetery management; economic development; urban governance; intellectual property.

“The Vietnam Urban Indicator (VUI) is very meaningful for urban management activities, and it is a valuable data base of Vietnam urban system. Budget for the development of this set of indicators is limited but the indicator set will bring about remarkable benefits, and developing an urban observatory system is also municipal responsibility”, said Mrs. Vu Thi Vinh, Deputy General Secretary of ACVN.

“In the context that urbanization in Vietnam has started a new development period, Vietnam Statistics Sector is developing a new development strategy for the period between 2010 – 2020. The Draft Vietnam Urban Indicator System and Urban Observatory System Initiative in Vietnam are expected to contribute to setting up a data base for making analytical reports serving the policy making process. Vietnam cities and towns themselves also have chances to take part in preparing a State of Vietnam Cities Report and are inherited experiences of UN-HABITAT at regional and global scale”, said Mrs. Le Thi Mai Huong, UN-HABITAT Project Manager.

Sanitation Challenge in Asia – An Overview*

The results for sanitation coverage are quite mixed. While the good news is that coverage has increased from 49% in 1990 to about 66% in 2006, yet 1.8 billion people in Asia are still without improved sanitation; 51 million urban people still practice open defecation; in absolute terms 23 million more people in 2006 as compared to 1990 were without access to basic sanitation.

Disparities between urban and rural areas continue. Nearly two third (2/3) people in East Asia and Pacific without improved sanitation live in rural areas.

Disparities between income classes: only 29 percent of the poor have access to improved sanitation. More work needs to be done for providing access to improved sanitation in Cambodia, Indonesia, Lao PDR, Mongolia, Fiji, Kiribati, Papua New Guinea and Timor Leste.

Wastewater Management

Sanitation does not end with provision of toilets, but includes wastewater management as well. About 90% of Asia's wastewater is discharged untreated – polluting groundwater, rivers and coasts. Investments in Water and Sanitation sector are starting from a very low base. A country wise comparison highlights very low levels of investments in the sector.

India: Spending for water supply and sanitation <1% of GDP in 2004

Indonesia: Capital expenditures for sanitation: <1% of public works for urban infrastructure

Philippines: Sanitation investment is 3% of annual investment in water and sanitation = 0.05% of GDP (~USD 33 million per year)

Pakistan: Spending for water supply and sanitation: 0.19% of GDP in 2006/07 (US\$ 1.74 billion allocated in 2005-10 Medium Term Plan)

Uzbekistan: Domestic & toxic waste treatment: 0.27% of total expenditures

It is estimated that the annual costs of meeting the 2015 sanitation target are about \$7 billion for sanitation facilities, and \$53 billion for wastewater treatment. The major barriers and key constraints are as under:

- Lack of political will at top levels
- Sanitation is considered as a dead-end investment.
- Public spending is low and budget reallocation is difficult
- Lack of awareness: Efforts to generate and stimulate consumer demand are very weak.
- Sanitation & Hygiene is still seen as a private matter (hence, public investment allocation is low)
- There is no single institutional home for sanitation – Gross lack of ownership and accountability; conflicting mandates and lack of coordination among various agencies
- Lack of capacity to
 - (a) develop and implement innovative bankable projects,
 - (b) identify affordable technologies;
 - (c) access financing, and
 - (d) engage private sector.

Wastewater Management Revolution:

Several Drives Needed

1. Knowledge Drive

Information system which may provide technology and financing options and applications; working models as well as good practices

2. Technology Drive

Focus has to be on appropriate, cost effective, less energy intensive and environmentally sound technologies. There is also the need for different standards, treatment levels and technologies to meet different needs and uses.

3. Financing and Incentives Drive

- Investment and business opportunities
- Delivery and financing mechanisms
- Recognition for innovative solutions and champions
- Awareness and Advocacy Drive
- Knowledge exchange and capacity development

The cost of inaction is quite high. The table below indicates the impact of such inaction in some countries of Asia.

	Total Impact (US\$ million)	Per Capita Impact (US\$)	Impact as % of GDP
Cambodia	448	32.5	7.2
Indonesia	6,344	28.6	2.3
Lao PDR	193	--	5.6
Philippines	1,412	16.8	1.3
Viet Nam	780	9.3	1.3

Awareness and Advocacy (Knowledge) Drive

Hygiene and environmental education in schools in many countries in Asia has been the key mechanism for creating awareness for sanitation. In Philippines, "Fit School Program" has helped in creating greater degree of awareness among school children and through them to the community at large. Community-led total sanitation has helped in triggering demand in some countries in Asia that include Bangladesh in South Asia and Cambodia in Mekong region. Similarly, there have been efforts on social marketing of sanitation as in India. Stakeholder participation has helped in planning, O&M and monitoring. SANI-MAS programme in Indonesia is another good example in this regard.

The benefits from improved sanitation:

- A \$1 investment could yield a return of \$3 - \$34
- Increases productivity and income levels
- Attracts more investments and tourists
- Improves living conditions, provides more amenities
- Results in cleaner environment
- Results in higher land values
- Lowers the cleanup costs

Source: Water and Sanitation Program. Economics of Sanitation Initiative – Phase 1

Expanding the knowledge base:

In order to share knowledge of appropriate technologies and good practices, several efforts have been made that include production of publications and CDs such as (a) Toolkit: Smarter Sanitation (CD) (b) Sanitation Decision Support System (c) Making Sanitation Everybody's Business (d) Coming Clean on Sanitation (DVD) (e) India's Sanitation for All: How to Make it Happen (f) Asian Sanitation Data Book and (g) Economics of Sanitation Initiative (with WSP) to list a few.

* This story is based on the presentation made by Alan Baird, ADB at the International Workshop on Sanitation in Palenbang, Indonesia, 29 November 2010

Technology Drive

The table below provides several examples of appropriate technology options.

Toilets	- Sulabh pour-flush toilets with twin pits; attached to biogas digesters in unsewered areas in India - Eco-san toilets – produce safe fertilizer: are getting popular in Philippines and PR China
Decentralized wastewater treatment system (DEWATS)	- Urban poor communities are using DEWATS in 22 provinces in Indonesia - Used in public markets in Philippines - Extensive use in peri-urban areas in Viet Nam
Constructed Wetlands	Ningbo and Nanjing (China) , Bayawan City (Philippines), and Nepal
Conventional centralized	- DaNang (Viet Nam) - Sihanoukville (Cambodia)

Financing and incentives drive

In order to ramp up investments in the sector, there is a need to show business and investment opportunities, develop bankable projects, allocate higher budget for sanitation, increase public awareness and involve stakeholders to stimulate demand. Efforts are also needed to promote partnership with the private sector (PPP). For this it will be important to address sustainability issues through cost recovery mechanisms and also address affordability issues by supporting small-scale providers and entrepreneurs.

There are several examples of tapping potential revenues from different countries which can be shared and replicated. These include:

India: Reuse of treated wastewater for industrial use, in Surat, Gujarat State through PPP is augmenting water supply, earning US\$6 million per year

Xiamen, PR China: The Shiweitou Sewage Treatment Plant supplies 24,000 cu.m/day of treated wastewater for watering plants in more than 500 ha., earning RMB 2 million per year

Bali, Indonesia: Reuse of treated wastewater from the "Eco-Lagoon," which is also a tourist attraction

Bangladesh: duckweed-based wastewater treatment pond-net profit of almost US\$ 2000/ha/yr from operation & using duckweed as feeds in aqua-farms.

Targetting the Poor

Information, education and capacity development, enabling participation of the poor in planning, implementation and monitoring, partnership between the local governments, utilities, poor communities and non-State providers and flexible payment terms are among the mechanisms to target the urban poor. There are several examples of innovative financing mechanisms e.g. socialized community fund (Gram Vikas) in India; Microfinancing in Bangladesh and Philippines; Revolving fund in India and Viet Nam and Output-based Aid in Nepal and Philippines. To achieve MDG Targets, Business as usual cannot continue. The major concerns of sanitation coverage in Asia include (i) improving quality and ensuring sustainability of sanitation projects. There is also the need to ramp-up financing and investment; institutional reform and capacity development. There is also a great need to engage communities and partner with the private sector. Knowledge, technology and financing options underscore the need to scale up successful pilot projects, promotion of wastewater reuse.

International Workshop on Sanitation in Palembang, Indonesia

UN-HABITAT was a partner with Citynet and ADB in organizing an International Workshop on Sanitation from 29-30 November 2010 in Palembang, South Sumatra, Indonesia. The Workshop was attended by the City Mayors, elected representatives, senior officials, policy makers and NGOs from Indonesia, Bangladesh, Sri Lanka, Nepal, Thailand & other Southeast Asian countries. The workshop provided an overview on the sanitation challenges in Asia and also showcased Indonesian Sanitation experiences besides depicting what other Asian Cities are doing. It also discussed different sanitation approaches of various stakeholders in the Asia. UN-HABITAT shared its partnership experience with the private sector particularly Coca Cola in India and Nepal. There was a panel discussion on the Sanitation Databook to Actions.

Several participating cities in the Workshop expressed their commitment to participate in the second edition of the Sanitation Databook which is now being discussed and planned by all the three partners namely ADB, Citynet and UN-HABITAT. The Indonesian cities also expressed their inclination to bring Indonesian Cities Sanitation Databook in 2011-2012. The workshop also discussed various actions and recommendations for meeting Sanitation Target by 2015. The workshop also received lots of Media attention through wider and intense coverage in the local newspapers.



MUAN's Role in Sanitation Sector in Nepal

Planned development programmes on public water supply and sanitation in Nepal started from the 1st Five Year Plan (1956-1961). However, the water and sanitation sector started receiving priority only during the 4th Five Year Plan (1970-1975). Currently, the water supply coverage in Nepal is about 80.4% whereas basic sanitation coverage is only 46%. The main focus of the government has been and still is on coverage rather than on quality in both these sectors. Being the umbrella association of all 58 Municipalities of Nepal (MUAN) has been working actively with multi-stakeholders to address the issues of sanitation and water supply at the municipal/ local level. Some of the major projects undertaken by MUAN in recent years are 'Strengthening Water, Air, Sanitation and Treasuring Health' (SWASTHA) project, demonstration of

localizing MDG on water and sanitation in Kalaiya Municipality, School sanitation improvement project in Tansen Municipality and documentation of successful municipal solid waste management practices.

Though all these projects involve different stakeholders, they aim to address the same issue i.e. provision of water and sanitation services to people living in some of the poorest municipalities of Nepal. Some major activities of these projects include partnership with local authorities, behavioral change campaigns, reaching for the urban poor, providing girl friendly sanitation at schools, replicating feasible practices and so on. MUAN seeks to get involved with more stakeholders for initiating such activities in the days to come.

Event of "Water for Better City and Better Life" held during Shanghai Expo

On 05 October 2010, an event of "Water for Better City and Better Life" was successfully held at UN Pavilion, Shanghai Expo. Around 1,000 people participated in the event. Andre Dzikus, Chief of Water and Sanitation Section-II, UN-HABITAT delivered an opening speech and addressed the importance of water in urban development and people's daily life and also introduced the water and sanitation programme of UN-HABITAT. He also presented the Human Values-based Water, Sanitation and Hygiene Education (HVWSHE) programme during the event, highlighting the importance of a new water and sanitation ethic in society that needs to accompany scientific and technological advances. Mr. Chen Xiaolong, the Deputy Director of Tongji University, gave a presentation on "Green Campus Construction". Water saving, rain water harvesting and wastewater re-use initiatives are being implemented in Tongji University. The Experts from Shanghai and Kunming also introduced water supply and water

saving projects experiences. Both the cities have used new technology, and also focusing on raising the public awareness about water supply and water saving.

During the closing session of the event, an awarding ceremony for Water Saving Proposals competition was organised which was attended by thirty six schools of Shanghai. The Deputy Director of Shanghai Education Commission gave a speech and introduced the purpose of the competition. Two first prize winners, four second prize winners and six third prize winners were awarded by the joint certificates from UN-HABITAT and Shanghai Municipal Education Commission (SHMEC). The competition enhanced the knowledge and awareness amongst students on the rational use of water and encouraged innovative technological solutions to reduce wastage and enhanced reuse of waste water.



Eco-efficient and Sustainable Urban Infrastructure training in South Korea

International Urban Training Center (IUTC), South Korea, UN-HABITAT and UN-ESCAP organized an international training course on "Eco-efficient and Sustainable Urban Infrastructure" from November 14-20, 2010 at IUTC, Gangwon Province, South Korea.

The overall objective of this course was to build the capacity of participants in planning and developing infrastructure in an integrated way, taking into account eco-efficiency and sustainability principles. Such approaches helps identify win-win solutions leading to improved quality of life and competitiveness through environmentally sustainable urban development. The specific targets of the course were to:

- Familiarize participants with the key concepts of eco-efficiency and sustainability and how they relate to urban infrastructure;
- Equip participants with tools to assess the eco-efficiency of urban infrastructure development and to feed into decision-making and policy development;

structure development and to feed into decision-making and policy development;

- Present and discuss approaches and cases on urban infrastructure development from the Asia and Pacific region with a view of identifying good practices and lessons learned;
- Enable participants to identify and prioritize strategies and policies to ensure eco-efficient and sustainable outcomes

Participants from India, Pakistan, Bangladesh, Nepal, Indonesia, Thailand, Cambodia, Mongolia, Philippines, Vietnam, Laos PDR and Sri Lanka participated in the training course. Resource persons were invited from Australia, UN-HABITAT, UN-ESCAP as well as the Experts and Heads of various organizations of South Korea.

The resource persons gave lectures on eco efficient infrastructure works, emission of green house gases, climate change, Environment Impact Analysis, Transportation System etc. From India, Mr. Manish has given lecture on Energy Savings, From Singapore Mrs. Lee has presented Water Supply System Of Singapore and from Bangkok Mr. Mettakun has presented the Transportation system of Bangkok.

From India, Mr. Krishna Kumar Shrivastava, Project Manager, Project UDAY, Gwalior Municipal Corporation, and Mr. Ashish Kumar Shrivastava, Project Manager, Project UDAY, Jabalpur Municipal Corporation, India participated in this training course and made presentations on UN-HABITAT initiatives in Madhya Pradesh under the Water for Asian Cities Programme.



NHB's Experience on Water and Sanitation in India

National Housing Bank of India initiated its housing microfinance (HMF) programme and has over the last few years been focused on micro finance institutions (MFIs)/Non Governmental Organizations (NGOs) as a major target segment for reaching out to the economically weaker segments in both rural and urban areas. NHB has taken a series of initiatives to engage the MFIs/NGOs in housing by providing long term financial support and technical assistance and training in housing finance and enable their increased participation in housing finance. NHB has, till date, extended financial assistance for both rural and urban housing microfinance projects in Andhra Pradesh, Maharashtra Tamil Nadu, Orissa, Gujarat, Kerala Karnataka, West Bengal and Uttar Pradesh. The Bank has sanctioned an amount of INR 923.2 million which will generate over 24,185 dwelling units in these states.

NHB has also opened a specialized window for Water and Sanitation (W&S) programmes being taken up by MFIs for their members of Self Help Groups. These programmes form an integral part of the HMF programme of the Bank. The Bank entered into a Memorandum of Agreement with United Nations Human Settlements Programme (UN-HABITAT) for implementing water and sanitation programme through MFIs and other agencies. The focus of the Agreement with the UN-HABITAT is on the provision of water and sanitation facilities in the housing projects financed by NHB for low income households either as part of the housing and habitat project or stand alone projects for the provision of water and sanitation facilities. Also, the Bank and UN-HABITAT will undertake research studies on sustainable financing systems, and related issues including sustainable human settlements, land security and tenure, appropriate technology, building etc. Under its W&S programme, the Bank has sanctioned about INR 46.5 million which is expected to result in construction of 7481 toilets in different states.



*Participants of the Workshop at Nagpur, Maharashtra on 03 December 2010.
Photo © UN-Habitat*

Workshop on Water and Sanitation

Under the purview of this agreement, NHB and UN-HABITAT organized a one day workshop on water and sanitation programme on 3rd December 2010 at Nagpur. The main objective of workshop was to inter-alia discuss salient issues pertaining to water and sanitation projects in the country, experiences and challenges faced during the implementation of these projects.

The participants consisted of professionals from microfinance institutions such as Friend's of Women World Banking, Adhikar, Evalangical Social Action Forum, Mahasakthi Foundation, Sambhav Social Service Organization, Sahara Utsarga Welfare Society, Sangamithra Rural Financial Services, Society for Human Advancement and Rural Education, Development Alternatives. Also, a number of beneficiaries of water and sanitation microloans participated in the seminar and shared their experiences on how beneficial water and sanitation facilities have proved for them.

UN-HABITAT and Coca-Cola Partnership in Mekong

The Coca-Cola Company has been a key partner to UN-HABITAT in efforts to achieve healthy watersheds and access to water and sanitation for communities in South Asia, and this cooperation is further developed in the Mekong region countries, particularly with a focus in Cambodia and Vietnam. A contribution agreement has been signed between UN-HABITAT and the Coca Cola South-East Asia Inc in late 2010: it is envisaged that US\$ 600,000 will be contributed by Coca Cola, over a three year period, towards the scaling up of ongoing MEKWATSAN projects in Cambodia and Vietnam. Currently UN-HABITAT is investing nearly US\$5 million in the two countries.

Under the first year of this partnership, in Vietnam, UN-HABITAT, in Cau Viet town, will be extending the tertiary water supply network to reach 205 poor households in Gio Thanh commune. Furthermore UN-HABITAT will rehabilitate the water supply network by replacing 500m of dilapidated piped network (50-80mm dia.) in order to improve water supply coverage for 700 HH and reduce the water loss from 30% to 25% in Gio Viet commune. In Cambodia, under the first year of partnership, the project will operate in over 12 villages in Praek Thmei Commune. There are 3,352 households and 19,971 habitants in this

area. The initial outputs include (1) participatory selection of poor households who presently do not have access to clean water services, (2) upgrading and mobilizing the Water and Sanitation Committees (WSC) to actively engage in the proposing project, (3) providing systematic training and capacity building to WSC to enable them to undertake their primary roles in this project, (4) setting-up a local mechanism for effective communication and advocacy which aims at protecting consumers' right, (5) subsidizing the connection fee for the selected poor households, and (6) mobilizing local participation and contribution toward the cost of deposit and pipe extension.

"Water is critical to the health and prosperity of local communities and when it comes to environmental sustainability, we all have a role to play," said Martin Gil, General Manager Indochina and Chief Representative, Vietnam, Coca-Cola Southeast Asia Inc. "We believe that the collective efforts of many can create waves of positive change," he said.

"I am looking forward to successful scaling up of MEKWATSAN through this new partnership with Coca Cola", said Andre Dzikus, Chief, Water & Sanitation Section-II, UN-HABITAT.

UN-HABITAT and BASF Partnership in Mangalore, India

UN-HABITAT and BASF Social Foundation recently signed an agreement for a joint project on Water and Sanitation Education in Mangalore city in India. The objectives of the project are to foster water, sanitation and hygiene education in schools and to improve quality of drinking water through implementation of a student led drinking water quality monitoring programme. The project also aims at addressing the objectives of the United Nations Decade of Education for Sustainable Development (DESD) (2005-2014), which seeks to integrate the principles, values, and practices of sustainable development into all aspects of education and learning, in order to address the social, economic, cultural and environmental problems we face in the 21st century; as well as the International Year of Chemistry in 2011, which stresses that chemistry makes a vital contribution towards achieving the goals of the DESD.

Under this project, scientific laboratories will be established in selected schools where the students will be trained to analyze the essentials of drinking water quality parameters in the field as well as in the laboratories. Interactive GIS based digital water quality maps will be developed based on the water quality monitoring programme and displaying the gradation of municipal and ground water quality, will be installed at strategic locations of the city for the benefit of the city population. Water Classrooms will also be established in selected schools to promote human values-based water, sanitation and hygiene education. The Water Classroom and Water Quality monitoring programmes would also help the city administration taking up measures to improve their urban basic services as well as promote citizens to adopt point of use treatment of drinking water. Safe drinking water facilities will also be created in few schools.

NASA Administrator visits First Water Classroom in Nepal

On October 5, 2010, Major General Charles F. Bolden, Jr. NASA Administrator visited the Water Classroom in Shree Yashodhara Boudha Secondary School (GLOBE Member School) together with American Embassy officials and foreign delegates.

Honorable Madhavi Shakya (Guruma), Founder of the school, welcomed guest dignitaries with Buddhist garlands. Mr. Sanjay Shakya, a Science teacher and Coordinator for the Water Classroom welcomed all guests on behalf of the school.

Mr. Yogendra Chitrakar, Director of Environmental Camps for Conservation Awareness (ECCA) Nepal, explained about how the Water Classroom was established with the support of UN-HABITAT, the Ministry of Education and ECCA Nepal through the "Human Values-based Water, Sanitation and Hygiene Education (HVWSHE) Programme". He explained that the Water Classroom helps students understand the value of water from the social, cultural, religious, economic, natural and scientific aspects. He added that the classroom helped add on the value of improving the school environment and has become a one stop learning center on water for all Nepalese schools.

The school students also explained about the water classroom and it comprises watershed models and ground water recharge systems, a water cycle board, a hydraulic water turbine and 3-Dimensional landscapes of natural surface water systems, a creative wall information board as well as a reading corner. Apart from it, a rainwater harvesting and ground water recharge system and a bio-sand filter has also been set up at the school premises, which were shown to Administrator Bolden by the students.

During his visit to the Water Classroom in Yasodhara Baudha Secondary School, Administrator Bolden presented books to the School Principal Ms.



Major General Charles F. Bolden, Jr. NASA Administrator visiting the Water Classroom in Kathmandu, Nepal, 2010. Photo © UN-Habitat

Ramila Shakya and interacted with more than 100 students and teachers. He shared his experiences as an astronaut with the National Aeronautics and Space Administration (NASA) and stressed the importance of working hard in school in order to achieve personal and professional goals, and not being afraid of failure or asking questions to teachers until they were satisfied with the answers. When asked by a student about the possibility of him becoming an astronaut, Bolden replied that he too came from a modest background and nothing was impossible through hard work and determination. He demonstrated the students how to enter a space shuttle in a very encouraging way.

Dhalmati Sensitizing People on Sewage Management in Nepal

High Powered Committee for Integrated Development of the Bagmati Civilization/ Government of Nepal, National Trust for Nature Conservation, Guthi, and Environment and Public Health Organization has developed a tele-serial "Dhalmati" with support of UN-HABITAT to sensitize people on faecal sludge management and promote septic tank at household level.

The tele-serial, directed by MaHa Sanchar, was premiered in Lalipur on 26 November, 2010 amid a programme organized to mark the World Hand Washing Day 2010 and the World Toilet Day 2010 in Nepal.

The Premier Show was inaugurated by the Deputy Prime Minister and Minister for Physical Planning and Works Mr. Bijay Kumar Gachhadar, who told that the tele-serial would be very successful to motivate people to contribute in reducing river pollution by constructing septic tanks. He added that the serial had also highlighted the significance of wastewater treatment plant for sewage management in urban areas.

Dr. Roshan Raj Shrestha, Chief Technical Advisor of UN-HABITAT South Asia Region said that the construction of septic tank would help to reduce the trend of discharging untreated sewage in the river, which would improve river water quality and, in turn, urban environment. He suggested the local government authorities to associate with private sectors for the construction of wastewater treatment plant. In his opinion, it would increase job opportunities in addition to managing sewage and improving river environment.

Speaking about the Dhalmati, renowned artist Madan Krishna Shrestha told that toilet construction is not getting priority due to lack of public awareness on sanitation. In such condition, Dhalmati would be effective to sensitize people on the importance of septic tank and sewage management, he said. He also urged all urban dwellers to take initiative in an individual level for cleaning the rivers. After the Premier Show, the tele-serial has been telecasted through a national level television channel for the broader dissemination of the mes-

sages about septic tank and sewage management.

The Dhalmati showing its concerns towards river pollution and its impact on environmental sanitation and public health has attempted to raise public awareness on sewage management and significance of the use of septic tank. Meanwhile, it has also presented the technical aspects that one should consider at the time of construction of septic tank.

In the serial, renowned artist Hari Bamsha Acharya has performed the role of Hari Prasad, a tenant deprived of toilet facility. Similarly, Madan Krishna Shrestha played the role of house owner, who never wished to discharge sewage in the river and always wished to keep river clean.

The tele-serial moves around the problems confronted by Hari Prasad and his family for not having a toilet. Dhalmati, in addition to entertaining the audiences, also advocates for proper sewage management, which is being directly discharged into the river affecting river ecosystem adversely. The serial has also suggested the concerned government bodies to construct modern wastewater treatment plants to manage the toilet waste generated from the Kathmandu Valley.



Largest RBT System handed over to the Community in Nepal

The Shreekhandapur Reed Bed Wastewater Treatment (RBT) System, largest wastewater treatment system of its kind in Nepal, has been handed over to local Users Committee on 2 September, 2010.

The treatment system had been constructed by Dulikhel Municipality and Shreekhandapur Wastewater Treatment Plant Users Committee with support of UN-HABITAT Water for Asian Cities (WAC) Programme Nepal at Shreekhandapur in 2008. The municipality contributed four ropanis of land worth USD 26,000, where as financial support amount USD 90,000 was received from the UN Habitat for the construction purpose.

After this hand over, the users committee has announced to initiate the septic tank sludge treatment service as well. Before this, the treatment system was being used only for the treatment of wastewater produced from the households in the community. Chairperson of the committee Purna Bahadur Karmacharya said that they have planned to provide this service at NRs. 500 to the local residents of Dhulikhel Municipality, and otherwise they will charge NRs. 1000 for the same service.

Acting Chief Technical Advisor of UN-HABITAT WAC Nepal, Sudha Shrestha told that it must have been the first case in Nepal that a municipality, trusting the capacity of the users committee, was handing over such a large treatment system to the community. She also suggested the municipality to continue its technical and financial support to the community in days ahead.

Deshi Lal Mandal, Engineer at Dhulikhel Municipality believed that the users committee should have acquired the capacity to operate and manage the wastewater treatment system themselves as they were involved in the project from very beginning. Continuing his speech, he informed that the municipality will continue its support to run the treatment system in future as well. Apart from wastewater treatment system, a biogas reactor has also been connected



to the plant for biogas generation purpose. It generates biogas from the human excreta separated the wastewater.

Thus generated biogas is being supplied to 5 households in the community, who pays NRs. 350 every month to the committee for this facility.

The liquid waste is then passed to 'Reed Bed Treatment Plant' for further treatment. The plant consists of a flow diversion manhole, a coarse screen and grit chamber, two diversion chambers, two 75 cubic meter biogas reactors, six horizontal reed-bed plants, two sludge drying beds and 11 collection manholes. The treated water will be then discharged into the river.

Currently, the treatment system is providing wastewater treatment service to 100 households in Shreekhandapur, said Purna Karmacharya, who informed that committee raises NRs. 200 per month from the users for this service. He added that the committee is communicating with other households in the community to divert their wastewater to this treatment system. There are 200 households in Shreekhandapur VDC.

Follow-up Workshop on Gender Mainstreaming in WATSAN held in Nepal

UN-HABITAT Water for Asian Cities Programme Nepal in association with Gender Water Alliance (GWA) organized a Follow Up Workshop on Gender Mainstreaming in Water and Sanitation (WATSAN) from 22 – 24 September, 2010 in Lalitpur, Nepal.

The workshop had been held to enhance the understanding of WATSAN stakeholders on gender, share the experiences of the participants on gender mainstreaming and increase equal gender participation in the sector. It also aims to consult on their Gender Mainstreaming Action Plans and make necessary improvements for its effective implementation in WATSAN sector. There were around 30 participants at the workshop particularly from different government agencies, municipalities and non-governmental organizations.

Speaking at the programme, Sudha Shrestha, Acting Chief Technical Advisor, UN-HABITAT WAC Programme Nepal informed that the follow up workshop will also be organized in Laos, Vietnam, Indonesia and Cambodia immediately after Nepal so that the participants of these workshops will share their experiences on gender mainstreaming, which will be used as reference to develop a "Resource Book for Gender Mainstreaming in WATSAN Sector in Asia".

Ester de Jong, Deputy Director of GWA told that the workshop had been expected to enhance the organizational capacities in addition to increasing knowledge of the WATSAN stakeholders on gender mainstreaming.

Senganphone Chitthalath, Gender Program Officer, Mekong River Commission shared about the success stories of the gender mainstreaming in water resource development and other WATSAN activities along Mekong Basin.

During the workshop, the participants were introduced to gender mainstreaming and suggested to use different indicators to measure gender mainstreaming at different levels including policy, technology, organizational and programme



Participants of the Gender Mainstreaming workshop in Kathmandu. Photo © UN-Habitat

level. They were also guided on gender budgeting, and different principles of effective gender and water governance.

Apart from it, the workshop reviewed the lessons and experiences of the operational aspects of the action plans of each participating organizations. Based on the consultation among the participants, these plans were improved to make it more effective at organizational level. These action plans had been developed in the previous gender mainstreaming workshop held last year in Nepal to institutionalize gender mainstreaming in WATSAN sector.

UN-HABITAT & UNICEF awarded the Central Emergency Response Fund (CERF)

The joint initiative of UNICEF and UN-HABITAT to prevent deaths of vulnerable population through lifesaving WASH promotion and response has managed to receive the fund from the United Nations Central Emergency Response Fund (CERF). The Central Emergency Response Fund is a humanitarian fund established by the United Nations to enable more timely and reliable humanitarian assistance to those affected by the natural disasters and armed conflicts. CERF was approved by consensus by the United Nations General Assembly on 15 December 2005 to promote early action and response to reduce loss of life and strengthen core elements of humanitarian response in underfunded crisis.

This joint initiative with the funding from the CERF will promote hygiene behavior through orientation and distribution of hygiene supplies (soap, chlorine, ORS) among the most vulnerable communities where diarrhea epidemics and cholera is prevalent. Demonstration of handwashing campaigns and water disinfection through chlorination will be done by mobilizing the local volunteers (FCHVs, teachers, Red Cross volunteers and women groups). Meanwhile, the project will also protect water sources and undertake minor repair work for ensuring continued supply of improved water to the vulnerable communities.

The local Water and Sanitation Users Committees (WSUCs) and Village Maintenance Workers (VMWs) will be trained and mobilized to maintain the water systems during the rainy season. In the case of the terai, elevated hand pumps and latrines will be installed to secure drinking water and latrine facilities in the high land areas where people take shelter in the event of heavy flooding. In this process, similar structures will be upgraded in public schools, health facilities, and community buildings as a back-up option for short term shelter in case of displacement caused by flooding and inundation.

The target population for this life saving initiative is approximately 900,000 people in 10 disaster prone districts. Special attention will be given to reach the most disadvantaged and deprived which includes women, children, people with disabilities and people living with HIV/AIDS.

While implementing this joint initiative, UNICEF will focus its intervention in rural areas whereas UN-HABITAT will concentrate in the urban and peri-urban areas of selected districts. Apart from this UNICEF and UN-HABITAT will work closely with the government counterparts, particularly with MPPW, DWSS and I/NGO partners at national level.

Promotion of Rainwater Harvesting and HVWSHE in Mongar, Bhutan

Bhutan, a small mountainous country landlocked between India and China has an environment which is amongst the most pristine in Asia, with clean air, water and primeval forests. However with high growth rates in population, unchecked rural to urban migration, increased population density in the towns and cities, rapid increases in imports of cars and rising demand for fuel wood, roads and building construction, the future suggests many negative effects on environmental assets, which can further expose the population to climate change vulnerabilities (NAPA Bhutan). The average rainfall varies greatly within the country ranging from 500 mm in the Himalayan regions to 5,000 mm in the south. The urban population is expected to increase by three times in the next one decade. Today, the urban population comprises 31 percent of the total population, and it is projected that, by 2020, more than 50 percent of the population will live in urban areas. This rapid urban growth has already created pressures on services like drinking water, sanitation and waste disposal. While basic urban facilities exist in all the towns, they are inadequate or they require improvement and expansion.

Mongar, a fast growing town and the second largest in the Eastern side of the country has been suffering from acute water shortages despite good rainfall. It has been noticed that streams supplying the town have been drying up, most probably due to climate change induced effects. This town represents the typical challenge that Bhutan faces from the impacts climate.

UN-HABITAT's Water for Asian Cities programme (WAC) has demonstrated innovative approaches to improve access to water supply and sanitation in several countries of Asia. In neighboring Nepal, demonstration of Rain harvesting has led to Government putting in place policy measures and incentives to promote this practice. UN-HABITAT's approach of Human Values Based Water Sanitation and Hygiene Education (HVBSHE) has also proven effective in promoting a new water use ethic leading to wiser use and conservation of water-important increasingly in the face of water shortages. The WAC programme has led to increased demand for UN-HABITAT's support from existing partner countries and also from other countries in the region, like Bhutan, which would like to benefit from a collaboration with UN-HABITAT.

In November 2010, UN-HABITAT has signed a cooperation agreement with Department of Urban Development and Engineering Services (DUDES) to implement a project on "Promotion of Rainwater Harvesting and Human Value-based Water, Sanitation and Hygiene Education in Mongar, Bhutan". This small project responds to a request from Bhutan to introduce innovative practices in water and sanitation provision and will demonstrate an innovative approach to augment water supply by harvesting rain-water and raise aware-

ness of rainwater harvesting as a means to adapt to the impacts of climate change. Simultaneously, it will demonstrate the Human Values-based Water, Sanitation and Hygiene Education (HVWSHE) approach to improve hygiene and water conservation practices in schools together with essential rehabilitation of water and sanitation facilities. The specific objectives of the Project include:

1. Demonstrate the potential of RWH systems as a measure for augmenting water availability to the community;
2. Advocacy for implementing RWH systems to supplement the shortage of drinking water in urban centres;
3. Capacity building of local people for the implementation of rain water harvesting system; and
4. Establishing an HVWSHE classroom for promoting Human Values-based Water, Sanitation and Hygiene Education (HVWSHE) in schools through the mechanism of capacity building of teachers and educating students to bring about changes in attitudes and behaviour among them towards wise and sustainable use of water and sanitation practices.

The project will be implemented in close collaboration with the Department of Urban Development and Engineering Services, Ministry of Works and Human Settlement, of the Royal Government of Bhutan. A joint UN-HABITAT and DUDES team, back -stopped in the field by UN-HABITAT's Regional Technical Adviser, based in neighboring Nepal, will be responsible for detailed design and implementation of project activities.

This team will also coordinate with the HPM in Nepal and ROAP so that lessons can be dovetailed into other initiatives to promote planning for sustainable urbanization, taking into consideration the needs for the provision of water and sanitation and rain water harvesting as a suitable option to address these needs. The team in the field will be back-stopped by WSSII, WSIB.

DUDES will manage and implement the project in close coordination with UN-HABITAT. Activities that are directly related to the obligatory functions of the DUDES will be carried out directly by DUDES, while for others -such as awareness raising, capacity building, etc. external experts will be recruited. UN-HABITAT will be closely involved during the "Selection Procedure" of consultants/ experts/ NGOs which.

Such procedures will be consistent with UN rules and regulations. Besides facilitating and mobilizing local resources, DUDES will be responsible for coordination and implementation of activities in the target area.

Case Study on Provision of Improved Sanitation Services towards reaching the MDGs project in Cambodia

Mrs. Pen Sophea is living in Tarang Bal village, Sangkat Koy Trabek, Svay Rieng Town, Svay Rieng Province. She was born in 1965 in Banteay Kraing Village, Banteay Kraing Commune, Kampong Ror district, Svay Rieng province.

When the Pol Pot regime was defeated by the revolution army, Mrs. Pen Sophea moved to live in Tarang Bal Village, Sangkat Koy Trabek, Svay Rieng Town, Svay Rieng Province. In 1979, she got married and her occupation was a farmer and she planted vegetables, as a secondary crop, to support her family. Mrs. Pen Sophea was married but her husband got sick and passed away in 1989, leaving her as a widow with three young sons. Without a husband to financially support the family, she quickly became poor, vulnerable and her living situation became dire. However, Mrs. Pen Sophea tried her best to generate a family income through planting vegetables such as water spinach (morning glory), gourds and raising some chickens and pigs to sell at the local market to generate an income to feed her family and for her sons' education.

Participating in project 'Provision of Improved Sanitation Services towards reaching the MDGs in Svay Rieng Town, Svay Rieng Province in Cambodia'

One day Mrs. Pen Sophea heard about a health and sanitation awareness meeting in her village prepared by the Sangkat Council with the participation of local villagers, and she attended this meeting. Not so long after the meeting, she was interviewed by the Village Leader and she was told that her household was registered as being 'very poor'. The Village Leader told her that Koy Trabek Sangkat Council had a meeting the week before with the organization 'Center for Development (CfD)'; the aim of the meeting was so that, CfD with UN-HABITAT support, could give information about a possible project 'Provision of Improved Sanitation Services Towards Reaching the MDGs in Svay Rieng Town, Svay Rieng province, in Cambodia' that could happen in the local area. Project goals and objectives:

1. Provide necessary materials to poor households to construct toilets
2. To set up Water and Sanitation Committee (WSC) and increase capacities to undertake sanitation improvements
3. To increase community awareness and promote behavior changes and open defecation-free urban villages
4. To promote gender equality in decision-making to increase household access to improved sanitation
5. To develop a community-based revolving funds for sanitation facilities

Mr. Prak Dorn, Leader of Tarang Bal Village, and Mr. Meas Sarann, Sangkat Chief, informed Mrs. Sophea about the target group and project information.



Mrs. Pen Sophea working with her Sanitation Self-Help Group to arrange for the transport of the toilet materials to the household construction sites Photo © UN-Habitat



Mrs. Pen Sophea outside her newly constructed toilet. Photo © UN-Habitat

Project target:

1. Partnership at the Provincial and District level: Provincial Departments/ Expertise Offices and organizations
2. Partnership at the Sangkat Level: Health centers/Schools/ Sangkat councils and WSCs
3. Beneficiary target groups: Poor and vulnerable households

The project started in January 2010 and will end in September 2011. In August 2010, Mrs. Pen Sophea was invited by the Chief of Sangkat Council to attend a training course on toilet construction, operation and maintenance. This course was facilitated by a Community Facilitator from Center for Development. On that day, the Chief of Sangkat Council advised the sanitation self-help groups that had been formed to help each other in transporting and delivering the toilet materials to the village and in constructing their toilets. Mrs. Pen Sophea is a member of Group Number 1 and there are 5 members in her group. Mrs. Pen Sophea arranged the land for the toilet and cleaned the area where the toilet would go.

Receiving the Toilet Materials and Construction Process

In the middle of September, Mrs. Sophea was requested by Mr. Ros Chantha (WSC member) and the leader of her Sanitation Self-Help Group to take the toilet materials which were located at the Sangkat Hall. She suggested that all the members in her group assist each other in taking and delivering the toilet materials to each of the households, and everyone in the group agreed to this. Mrs. Sophea built her toilet by herself, with only a little assistance from her group members and her uncle for the very heavy lifting. Regarding her contribution, she did not have enough money to build the wall with bricks or concrete because her family is poor. Therefore she built the foundations with brick, the wall was built using clay and rice straw and the roof and door is made of the zinc. Mrs. Pen Sophea earned the money to contribute to her toilet by selling vegetables and chickens that she had for a long time. Even if her family is poor she was able to construct her toilet with CfD/UN-HABITAT help. She is very happy with her toilet and expressed her sincere thanks to UN-HABITAT and (CfD) that supported her family to have a private toilet that makes her family healthier and means that they get ill less often.

Behavior change caused a good impact

Mrs. Pen Sophea said "After I got the toilet materials from the project, I constructed the toilet straight way. It is easier for my family to defecate now and I and my children do not need to go to the field to defecate anymore. The environment is cleaner as a result, my family members get ill less often and we do not need to face the snakes and leeches in the fields at night time. I always follow the advice from CfD staff as well as from the WSC, Village Leader and Sangkat Council when they provide awareness and coaching to me on how to be hygienic such as preparing food hygienically and always drinking clean water. I now know how to maintain my toilet properly."

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Water and sanitation for schools in Luang Prabang

A joint UN-HABITAT, Japan Habitat Association (JHA) and Nam Papa project has been launched in Xieng Ngeun district, Luang Prabang province to build much needed latrines to schools in the area. JHA recently donated \$30,000 towards improving the water and sanitation facilities in primary and secondary schools in the beautiful yet poor mountainous district not far from the famous World Heritage site of Luang Prabang. Resource mobilizing assisted by UN-HABITAT in support of NPSE Luang Prabang, the project complements the ongoing activities in the area as schools are located in towns where there are completed or existing MEK-WATSAN projects. The project will be wholly implemented and managed by a long-term partner, a local water supply company Nam Papa under the Ministry of Public Works and Transport, with support from UN-HABITAT.

Five schools in total will be receiving extra latrines, while two schools will be connected to a water source. A community at a remote town of Phonsa-at will receive a complete rainwater harvesting system for their school as well as a new water pump for the village.

The head teacher Mr. Somsa at Ban Moud secondary school commented: "We only have three existing toilets for 450 students, so the new gender-segregated latrines are very welcome." Lack of access to water and sanitation is a serious issue in the educational institutions in Lao PDR. According to the Ministry of Education data, in the Xieng Ngeun district only 28% schools have access to a sustainable water source and improved sanitation. The JHA-sponsored project is due to complete by spring 2011.



Students from Pak Thor primary school playing in front of the existing latrines. The building works for new toilets (left) have already begun. Photo © UN-Habitat

Supporting Global WATSAN Education

UN-HABITAT and Project Wet Foundation plan to hold a seminar during the World Water Day in Cape Town, South Africa on 22 March 2011. This seminar will provide an opportunity to review UN-HABITAT supported initiatives on the Human Values Based approach to Water, Sanitation and Hygiene Education (HVWSHE) in Asia, Africa and the Latin America and the Caribbean Regions. Views of water and sanitation experts in the seminar will contribute towards further developing the HVBSWSHE approach and making it responsive to new challenges such as climate change.

UN-HABITAT and Project Wet Foundation also plan to hold the first global conference solely focused on education as an innovative solution to water and sanitation issues – "Sustaining the Blue Planet" in Bozeman, USA from 13-16 September 2011. UN-HABITAT is pleased to be a partner in this conference. The conference provide an opportunity to elicit the views of education experts on water and sanitation education. The seminar during World Water Day and the global conference will also contribute towards preparing an urban water and sanitation education module for global dissemination. Details on the global conference on education can be obtained from: <http://projectwet.org/blueplanet>

Global Concert Series to Promote WATSAN

Water and Sanitation Section II, Water, Sanitation and Infrastructure Branch, UN-HABITAT is developing a Global Concert Series that will target young people for raising awareness of water and sanitation issues through the medium of music. WSSII is working with Rolf Stahlhofen, a well known musician and an UN-HABITAT "Messenger of Truth" for developing this concert series which is proposed to be held during UN-HABITAT's next Governing Council meeting in Nairobi; the World Water Day conference in Cape Town in March 2011; and in locations in Asia and Germany. In addition to Rolf Stahlhofen, the concert series will feature other well known musicians as well as local musicians. Detailed planning for the series was commenced recently with a visit by WSSII and Rolf Stahlhofen to the settlement in Kibiera in Nairobi.



ROLF STAHLHOFEN