

# WORLD WATER WEEK

in Stockholm  
August 21–27, 2005



## Final Programme

- 15th Stockholm Water Symposium on Drainage Basin Management – Hard and Soft Solutions in Regional Development
- Plenaries and Workshops
- Seminars and Side Events
- Prize and Award Ceremonies
- Social Events

## Table of Contents

Welcome .....	3
Overall World Water Week Strategy .....	3
Map of the Venue.....	4
Convenors and Co-Convenors .....	5
World Water Week Overview.....	6–7
Purpose and Scope of the Symposium .....	8–9
Sunday Activities.....	10
Monday Activities .....	16
Tuesday Activities .....	20
Wednesday Activities .....	28
Thursday Activities .....	38
Friday Activities .....	46
Saturday Activities .....	48
EU Water Initiative Meeting.....	50
General Information .....	52

### **Sponsors of the World Water Week are:**

- Sweco
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- Varim
- Arkpressen



## Strength in Diversity at the 2005 World Water Week in Stockholm!

In our globalised world, and in the water sector, a great strength is that of diversity – diversity of peoples, ideas and solutions.

Diversity will be on display at the 2005 World Water Week in Stockholm and the week's Stockholm Water Symposium, "Drainage Basin Management – Hard and Soft Solutions in Regional Development." One-size-fits-all solutions are out. Future water resources development, water supply and sanitation, and water management solutions will undoubtedly contain a mix of approaches, from technology to management and policy making. Such diverse solutions will be at the core of the Symposium's plenary sessions, debates and workshops.

The World Water Week seminars and side events, and the organisations convening them, take this diversity even further. Topics cover water and related development issues ranging from corporate sustainable development to transboundary water management.

As always, the World Water Week's prize award ceremonies, social events and technical tours will be first class. Most notably, the prestigious Stockholm Water

Prize will be presented for the 15th time on behalf of efforts to the conservation and protection of the world's water resources, which contribute to the health of the planet's inhabitants and its ecosystems.

Annually, the top experts from over 100 countries and a variety of disciplines participate in the World Water Week. Experts from academia, business, civil society, development agencies, financial institutes, non-governmental organisations, international organisations, governments and water management find the World Water Week in Stockholm to be a key ongoing platform for dialogue in the field.

We are especially pleased that an increasing number of organisations use the World Water Week in Stockholm as an annual occasion to review and follow up on long-term international processes and projects.

Welcome to Stockholm!

Anders Berntell  
Executive Director, SIWI

## Strategy of the World Water Week

The aim of the World Water Week in Stockholm is to serve as a link between practice, science, policy and decision making in the search for sustainable solutions for water resources management. While the character of the World Water Week is comprehensive and reflective, the agenda also includes discussions on specific issues. The purpose is to secure a proper tie between problems and their main causes on the one hand, and technology and governance perspectives of problem solving on the other. As a venue for the awarding of distinguished prizes and honours, the World Water Week also focuses attention on outstanding efforts on different water issues.

The approach is integrative – across disciplines, professions and societal sectors – encompassing natural sciences, engineering, social sciences, and scientific understanding with policy responses and citizen involvement.

Discussions take place in different formats; in plenary

with presentations or panel debates, in workshops and poster sessions on specific topics where papers for presentation have been accepted, and also in seminars arranged by different international organisations on a number of important topics at the core of the ongoing international debate.

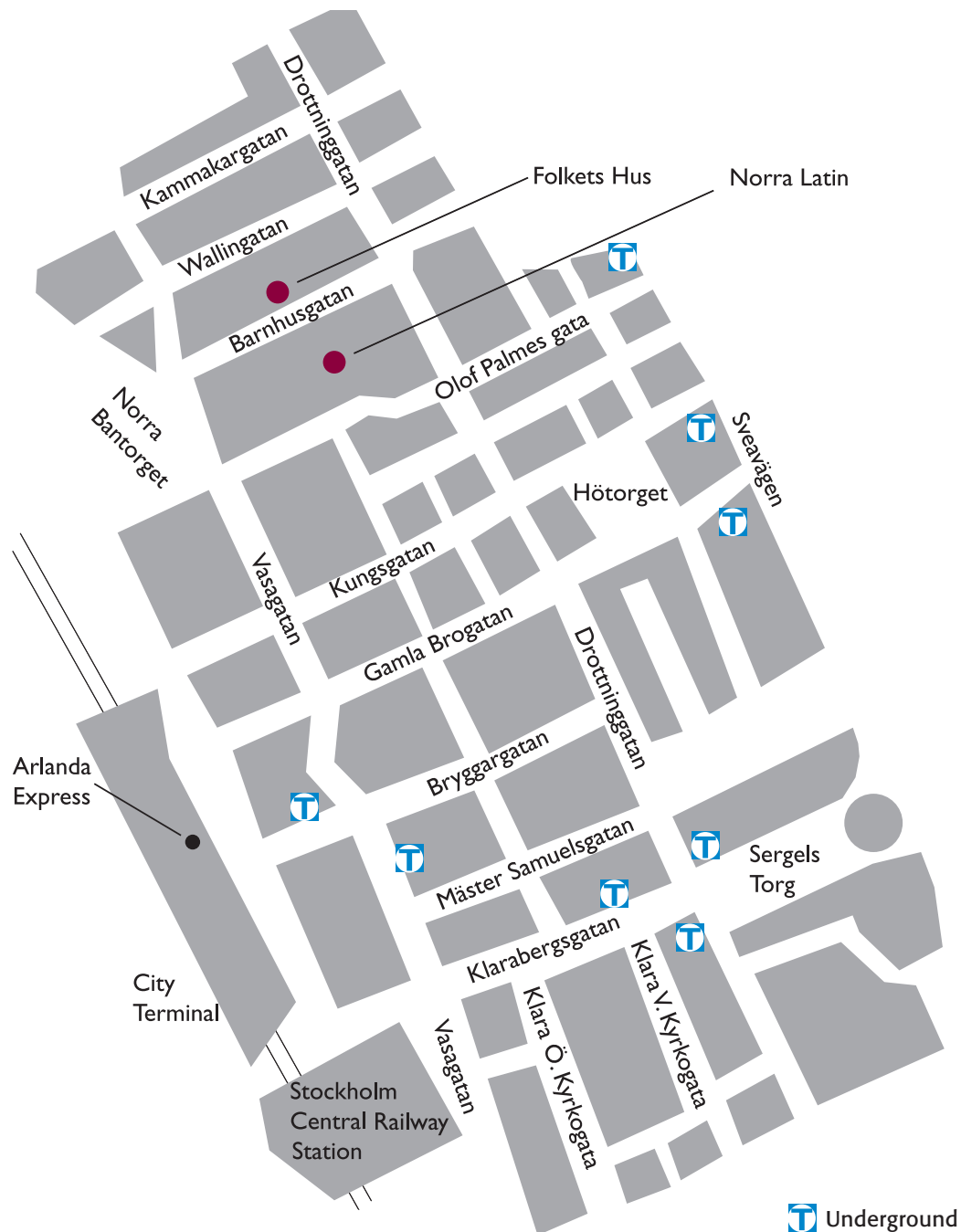
The basic perspective is global, but with a particular focus on similarities and differences between regions of the world, representing various phases of development, political systems and climatic conditions.

For the Stockholm Water Symposium, a niche is selected and followed for a range of years. The philosophy is to address the issues in a logical, sequential manner. The present niche (2003–2007) is "Drainage Basin Security: Prospects for Trade offs and Benefit Sharing in a Globalised World." Often solutions to water policy issues can only be found as part of broader packages that relate to wider issues of national and international policy and development.



City Conference  
Centre Folkets Hus  
(FH)

City Conference  
Centre Norra Latin  
(NL)



# Convenors and Co-Convenors of Activities at the 2005 World Water Week in Stockholm

Photo: SB

- Centre for Science and Environment, India
- Centre for Transdisciplinary Environmental Research (Stockholm University), Sweden
- Chalmers, Sweden
- Co-operative Programme on Water and Climate
- Council for the Stockholm-Mälardalen Region, Sweden
- DHI Water & Environment, Denmark
- DRM World Institute for Disaster Management
- Environment Canada
- European Academy of Sciences and Arts
- European Commission
- Expert Group on Development Issues at the Ministry for Foreign Affairs (EGDI), Sweden
- Global Water Partnership
- Global Water Partnership-Mediterranean
- Globetree, Sweden
- Harvard University, United States
- Helsinki University of Technology, Finland
- Hydroinform, Prague, Czech Republic
- Institute for Social and Environmental Transition, USA/Nepal
- Institute of Water Modelling, Bangladesh
- Institute of Water Resources Planning, Vietnam
- International Association of Hydrological Sciences
- International Development Enterprises
- International Food Policy Research Institute
- International Hydropower Association
- International Water and Sanitation Centre
- International Water Association
- International Water Management Institute
- International Water Resources Association
- Israel/Palestine Center for Research and Information
- IUCN – The World Conservation Union
- IVL (Swedish Environmental Research Institute)
- Lake Victoria Region Local Authorities Cooperation
- Local Conflict Group (Swedish Water House)
- Northern Water Network
- Partners for Water and Sanitation (PAWS)
- Regional Land Management Unit (RELMA)
- Rotary International
- Secretariat of the 4th World Water Forum
- Stakeholder Forum
- Stockholm Environment Institute
- Stockholm International Water Institute
- Stockholm Office of Regional Planning and Urban Transportation (RTK)
- Stockholm County Administrative Board
- Stockholm Water Company
- Stockholm Water Foundation
- Swedish Institute for Climate Science and Policy Research at Linköping University
- Swedish International Development Cooperation Agency
- Swedish Meteorological and Hydrological Institute
- Swedish Ministry for Foreign Affairs
- Swedish Royal Institute of Technology
- Swedish Water House
- Swedish Water and Wastewater Association
- The 24 UN system entities that work on water issues and cooperate through 'UN-Water'
- The International Working Group guiding the Global Review of PSP
- The Resilience and Freshwater Initiative (Swedish Water House)
- Third World Centre for Water Management, Mexico
- Transparency International
- UN Millennium Project
- Union of the Baltic Cities
- United Nations Educational, Scientific and Cultural Organisation (UNESCO)
- United Nations Environment Programme – Finance Initiative
- Universities Partnership for Transboundary Waters
- University of Toronto, Canada
- Varim, Sweden
- VERNA Ekologi AB, Sweden
- Water and Sanitation for the Urban Poor
- Water and Sanitation Programme
- Water Environment Federation
- Water Management Authority, Czech Republic
- Watershed Media Project
- Water Supply and Sanitation Collaborative Council
- Water Supply and Sanitation Technology Platform
- World Agroforestry Centre (ICRAF)
- World Bank
- World Business Council for Sustainable Development
- World Economic Forum Water Initiative
- World Health Organization
- World Meteorological Organization
- World Water Council

# World Water Week Overview

■ Seminars

■ Symposium Workshops

Time Schedule	Seminar Day Sunday, August 21	Opening Day Monday, August 22	Workshop Day Tuesday, August 23
Registration Hours	08:00–18:00 Registration*	08:00–18:00 Registration	08:00–18:00 Registration
Morning Session	<p><b>SEMINARS ON:</b></p> <p>Young Water Professionals (10)</p> <p>Water and Energy (11)**</p> <p>Meet Int. Water Targets Without Fighting Corruption? (12)</p> <p>Prediction in Ungauged Basins: Data, Science and Policy (13)</p>	<p><b>OPENING SESSION</b></p> <p>with the Official Address, Special Guest Speakers, the Keynote Address and the 2005 Stockholm Water Prize Laureate Lecture (16)</p>	<p><b>EU Water Initiative Partners Meeting (whole day) (50)</b></p> <p><b>Workshop 1: Design and Operation of Infrastructure for Development Objectives (20)</b></p> <p><b>Workshop 2: Coping with Climate Variability and Water-Related Hazards (21)</b></p> <p><b>Workshop 4: Tailoring Water and Sanitation Solutions to Reach the Millennium Development Goals (22)</b></p> <p><b>Workshop 5: Strategies to Increase Resource Use Efficiency in Industrial and Agricultural Sectors (23)</b></p> <p><b>Workshop 6A: Political and Social Negotiation Processes: Sustainability and the Politics of Water (24)</b></p>
Coffee Break			
Lunch			
Afternoon Session	<p><b>SEMINARS AS ABOVE AND:</b></p> <p>IWRM – Do We Practice it in the North? (14)</p> <p>Best Practices in the NGO Sector: Role of Rotary Clubs (14)</p> <p>Political Economy of Defecation (15)</p> <p>Harnessing Uncertainty: Taking Complexity and Vulnerability Seriously in IWRM (15) (17:15)</p>	<p>Plenary Session (17)</p> <p>Workshop Introduction Panel on Hard and Soft Solutions in Regional Development (17)</p> <p>High Level Panel Debate on Large-Scale Water Infrastructure (17)</p>	<p>EU Water Initiative Partners Meeting (50)</p> <p>Workshops as above continue</p>
Coffee Break			
Evening		<p>Side Events (18–19)</p> <p>The Mayor’s Reception at the Stockholm City Hall (19)</p>	<p>Poster Session (25)</p> <p>Side Events (26–27)</p> <p>Stockholm Junior Water Prize Award Ceremony at Dansens Hus at the Conference Venue (27)</p>

\* Please note that registration is possible even on Saturday, August 20, 15:00–17:00

\*\* Page numbers are in parentheses

# World Water Week Overview

Side Events

Awards

Social Programme

Workshop Day Wednesday, August 24	Seminar Day Thursday, August 25	Closing Day Friday, August 26	Seminar Day Saturday, August 27
08:00–18:00 Registration	08:00–18:00 Registration	08:00–15:00 Registration	08:00–13:00 Registration
<p>EU Water Initiative Partners Meeting (whole day) (50)</p> <p>UN–Water Seminar (32)</p> <p>Workshop 3: Water Provision Across Sectors and Jurisdictions (28)</p> <p>Workshop 7: Approaches to Mitigate Land Degradation and Gully Erosion (30)</p> <p>Workshop 8: Water Quality Degradation by Hazardous Substances and the Cost of Non-Action (31)</p>	<p>SEMINARS ON:</p> <p>EU Water Initiative Multistakeholder Forum (51)</p> <p>AMIWASH – African Ministers to Meet the MDGs (38)</p> <p>Hydraulic Infrastructure for Economic Growth (39)</p> <p>Shared Water Problems in the Middle East (41)</p> <p>Transboundary Trialogue (40)</p> <p>Millennium Sum. to 2015 (42)</p> <p>Local Actions 4th WWF (42)</p> <p>Decentralised, Centr. Water and Sanitation Systems (43)</p> <p>Current Interest in Water and Wastewater Treatment (43)</p>	<p>PLENARY SESSION</p> <p>with High Level Representation of Governmental or UN Agency, Science and Business (46)</p> <p>World Water Week Synthesis Panel (46)</p> <p>CLOSING SESSION (46)</p> <p>Conclusions of the Workshops (46)</p> <p>Best Poster Award (47)</p> <p>Swedish Baltic Sea Water Award Presentation (47)</p>	<p>Technical Tours (49):</p> <p>Lovö Waterworks and Increased Protection of Lake Mälaren</p> <p>Lake Bornsjön – Local Drainage Basin Management</p> <p>New Sanitation Solutions in Stockholm</p>
<p>Stockholm Industry Water Award Ceremony and Founders Luncheon (37)</p> <p>Founders Seminar on Business, Water and Development (32)</p> <p>ACP-EU Water Facility Session (50)</p>	<p>SEMINARS AS ABOVE AND:</p> <p>Marketing Sanitation and Hygiene – How Do We Sell Toilets Like Toothpaste? (38)</p> <p>Modelling the World of Water (44)</p> <p>Finance for Water Solutions (44)</p>	<p>End 13:00</p>	<p>SIWI Seminar on Benefit Sharing from Integrated Land and Water Use in River Basins (48)</p>
Poster Session (33)			
Side Events (35–36)			
World Water Week Dinner (37)	<p>Stockholm Water Prize Award Ceremony and Royal Banquet at the Stockholm City Hall (45)</p>	<p>Excursion to the Aquaria Water Museum (45)</p>	



# Purpose and Scope of the 2005 Stockholm Water Symposium

Photo: Mats Lannerstad

## **Drainage Basin Management – Hard and Soft Solutions in Regional Development**

The 2005 Stockholm Water Symposium will explore the complementarities of soft and hard approaches in water management.

In the plenary sessions and workshops, discussions will focus on three areas:

- Water resources development, conveyance, allocation and environmental flow
- Water supply and sanitation to cater for household requirements
- Water management, including pollution abatement, in industrial and food producing sectors

The Stockholm Water Symposium has established itself as a meeting place of high integrity. Prominent decision makers, researchers and representatives of civil society exchange views, experiences and seek remedies to a variety of challenges. The 2005 Stockholm Water Symposium presents an opportunity to move forward in identifying effective strategies to achieve drainage basin security by a proper combination of hard and soft solutions.

### **The good and the bad natural variation**

Natural variations in the hydrosphere provide the context for human existence, and affect how we live. Food production and biomass in general thrive as a result of a mix of wet and dry periods. Variation in flow regime is fundamental for aquatic ecosystems. In aesthetic terms, natural variations are at the heart of our fascination for Nature.

Yet, the natural order is not necessarily benign. Erratic rainfall brings risks and hazards. Floods, droughts and other extreme natural hazards wreak havoc on cultivated fields and infrastructure, leading to human despair and loss of livelihood.

### **Necessary human interventions**

For both water provision and the safeguarding of water and environmental quality, human intervention is neces-

sary. Historically, we have relied on physical structures to store water or to change its path. We still do. But the scale of the interventions and the degree of centralisation and decentralisation has varied. Although direct interventions in blue water systems, i.e. rivers, lakes and aquifers, are the usual focus in water management, it cannot be forgotten that river flow originates from land, and that land management also means water management.

Globally, rain fed agricultural systems and natural flow regimes are most important for overall food production and livelihood sustainability. By contrast, household water supplies, urban growth, energy generation, leisure, industry and the recent expansion of food production, have all been achieved through greater control over blue water flows.

### **Hard and soft solutions**

Humans have used two complementary strategies to cope with these challenges. One may be labelled the “hard path” and refers to physical structures for water development, storage, conveyance, productivity enhancement and treatment.

The other is the “soft path.” It focuses on the human dimension of water management, i.e. institutional arrangements and governance, which determine “the rules of the game,” including the market, legal, political, administrative and human resource systems. Incentives and sanctions are important tools.

### **Changing political and public contexts**

The actual and perceived need for different kinds of solutions varies. In the so-called hydraulic civilisations, physical structures were organised and governed through strong political and cultural institutions. In the mid 20th century, a wave of strong political support for hydraulic structures swept through the world.

Today, this momentum had been reduced considerably due to environmental and social concerns, tightening budgets, perceived financial and other risks and a relatively poor performance of many of the existing schemes. Apparently, there is a widespread belief that it is better



to improve institutional and governance arrangements rather than building another dam and pipe.

### Not an either/or issue

Choosing between hard and soft approaches is not an either/or issue. Institutions per se cannot deliver water to parched fields or to settlements. Similarly, problems related to eutrophication and hazardous substances require technical solutions as well as legal and other institutional arrangements. The performance depends on the complementarities of the chosen mix but also on circumstances outside the water sector. For instance, electricity outages can devastate the functioning of many treatment plants. Similarly, institutional arrangements are powerless without political and legal backing and/or if strong interest groups object to them.

### Regional variations and the need to choose

Three factors – variations in climatic conditions, already secured storage and socio-political contexts – must determine what mix of solutions that could and should be promoted. For communities with strong seasonal variation in precipitation, water storage capacity is needed to bridge the rainy and dry seasons. The amount of infrastructure facilities varies tremendously in the world. In the United States, for instance, the storage capacity is about 5,000 m<sup>3</sup> per person, whereas in part of the Nile region it is about 50 m<sup>3</sup>.

Identifying the best combination of hard and soft solutions is a delicate task. Today, the design of physical structures and the probable benefits and impacts can be evaluated beforehand. Similarly, governing institutions are under increasing pressure to increase transparency and to enter into a public dialogue.

### What is the level for soft solutions?

The physical drainage basin is often considered the natural unit for water management. Socio-economic systems, however, are not confined within these geographic boundaries. Planning processes usually follow political borders. Provision of water to many rapidly growing urban areas cannot be arranged within basins. Political decisions to develop certain regions have also meant that the basin as a unit for water management is not always the sole context. The national level is a key for strategic and long-term water policy. At the same time, the active involvement of stakeholders at different levels of decision-making is increasingly important. Management in the various water sectors, i.e. irrigation, water supply and sanitation, etc., must also be harmonised with other arrangements in society such as land policies and social programs.

### What about people in drainage basin security?

The distinction between hard and soft approaches is a simplification. Irrespective of the quality and efficiency of the various arrangements, it is crucial to remember that solutions are being conceived of, implemented and run by people, not by institutions.

The mindset, motivation, ideas and diligence of individuals are extremely important. Human history is full of examples where technical and institutional arrangements have been promising but where the human factor has failed. The slogan from the 2nd World Water Forum, “Water is Everybody’s Business,” illustrates the importance to see people for what they are: individuals, a resource and a barrier. People are part of Nature, for good and bad.



Photo: Michael Moore

## The 2005 Stockholm Water Symposium Scientific Programme Committee (SPC)

- Professor Jan Lundqvist, Linköping University, Sweden (Chair)
- Ms. Katarina Andrzejewska, SIWI, Sweden (Secretary)
- Professor Asit K. Biswas, Third World Centre for Water Management, Mexico
- Dr. Thorsten Blenckner, Uppsala University, Sweden (co-opted)
- Dr. Gunilla Brattberg, Stockholm Water Company, Sweden
- Professor Klas Cederwall, The Royal Institute of Technology, Sweden
- Professor Boniface Egboka, Nnamdi Azikiwe University, Nigeria
- Professor Malin Falkenmark, SIWI, Sweden
- Ms. Ulla-Britta Fallenius, The Swedish Environmental Protection Agency, Sweden
- Mr. Claus Hagebro, Denmark
- Dr. Anders Jägerskog, Expert Group on Development Issues, Ministry for Foreign Affairs, Sweden
- Mr. Johan Kuylenstierna, SIWI, Sweden
- Professor Saburo Matsui, Kyoto University, Japan
- Mr. Jim Oatridge, Severn Trent Plc, UK
- Professor Ausaf Rahman, USA
- Mr. Michael Rouse, UK
- Professor Peter Söderbaum, Mälardalen University, Sweden

## SIWI Seminar for Young Water Professionals: Water Demand Management – An Effective Strategy That Incorporates Both Soft and Hard Solutions?

Convenor: Stockholm International Water Institute

Water demand management (WDM) aims to improve water use efficiency by incorporating soft solutions, such as capacity building, with hard solutions, such as water reuse. Demand management is more than just water savings; it is also a critical element of improving water provision which, while usually implemented in urban areas, is equally important in rural areas for long-term water security. Could this approach be an effective strategy which incorporates both soft and hard solutions in water resources management in these areas? While motives and social norms are often underestimated in water resources management, attitudes and perceptions of policy makers, water managers and users do actually shape the outcome of a strategy such as demand management. This seminar supports young professionals in their efforts related to water. Water demand management will be discussed through a combination of presentations, a panel debate and active dialogue.



Photo: Mats Kullberg

### Programme

FH/Room 300

**CHAIR:** *Dr. Therése Sjömander-Magnusson*, Swedish International Development Cooperation Agency, Sweden

**CO-CHAIR:** *Mr. Michael Moore*, Stockholm International Water Institute, Sweden

**RAPPORTEUR:** *Ms. Petra de Regt*, The Netherlands

- 09:00 Welcome and Introduction. *Dr. Therése Sjömander-Magnusson*, Swedish International Development Cooperation Agency, Sweden
- 09:15 Keynote Speech: Why Water Demand Management – The Case for Southern Africa? *Ms. Ruth Beukman*, Zimbabwe
- 09:45 Keynote Speech: Water Demand for Ecosystem Services: Coping with Uncertainty and Surprises. *Dr. Line Gordon*, International Water Management Institute, Sri Lanka
- 10:15 Presentations of Water Demand Management Experiences:
  - Navigating the Learning Curve: The State of Water Demand Management in the Front Range of Colorado, USA. *Mr. Paul W. Lander*, USA
  - Resolving Conflict Issues in Watershed Development Programmes for Water Demand Management in Districts of Madhya Pradesh and Maharashtra in India. *Mr. Reena Ahuja*, India
- 10:30 Coffee Break
  - Water Conservation: Towards Sustainable Development in China. *Dr. Chen Ying*, China
  - The Application of Water Demand Management to Rural Areas (Zambia). *Mr. Jonathan Kampata and Mr. Andrew Mondoka*, Zambia
- 12:15 Lunch
- 13:15 Panel Debate with All Seminar Speakers Discussing the Issue of Water Demand Management
- 13:45 Young Water Professionals Programme at the International Water Association. *Mr. Tom Williams*, International Water Association, UK
- 14:00 Smaller Group Discussions on Issues Raised During Morning Discussions and Panel Debate
- 15:45 Coffee Break
- 16:00 Group Presentations and Discussion
- 16:45 Finalising the Day: Formulation of Key Messages to be Contributed to the Stockholm Water Symposium
- 17:00 End of Seminar

### Poster Session

- Rainwater Harvesting as a Part of Water Demand Management – Pilot Case Study from the University of Nairobi, Kenya. *Mr. Teshamulwa Okioga*, Kenya



Photo: Dr. Olli Varis

# Water and Energy

**Convenors: Third World Centre for Water Management, International Hydropower Association, Helsinki University of Technology, and International Water Resources Association**

Production of water and generation of electrical energy are closely interrelated. Needs of both of these resources are increasing steadily in most countries. The water sector is a major user of energy, and equally, no large-scale electricity generation is possible without water. In some countries like France, the electricity sector is the main user of water. Similarly, in a country like India, nearly one quarter of electricity is generated by hydropower, and the water sector is a consumer of a similar percentage of electricity.

The water profession has basically ignored the water requirements for the energy sector, even though the electricity requirements of major developing countries like Brazil, China, India and Turkey have been increasing recently by 6 to 10 percent each year. If the two countries which have the highest economic growth rates in the world at present, China and India, are to continue with this progress, their energy requirements will increase as well. This will have significant implications for the water sector.

The Seminar will address issues like how the accelerating water requirements of the energy sector can be met efficiently in the future, the role of hydropower to satisfy burgeoning electricity requirements of developing countries, geopolitical implications of energy security on the water sector, energy requirements of the water sector, building capacity to manage water-energy related issues in a holistic manner, and a host of other water-energy interrelationships that have not been adequately considered earlier.

The Seminar will also consider how the accelerating water and energy requirements of the different countries of the world can be met in timely, cost-effective, and socially-acceptable ways. It will objectively review and assess experiences in water and energy developments from different parts of the world, in terms of policies, programmes and projects, as well as financial and institutional arrangements.

The economic, social and environmental ramifications of concurrent water development and electricity generation will be discussed, as will the impacts of such developments on poverty alleviation, regional development, and income distri-

bution. The investment requirements for such developments, especially for developing countries, will be addressed, as will where such investments could come from. The roles of governments, private sector and NGOs will also be examined.

Leading experts and policy-makers from different parts of the world have been specially invited to participate in this Seminar. Following the Seminar, the papers will be published as a book.

## Programme

**FH/Room 307**

**RAPPORTEURS:** *Cecilia Tortajada*, Mexico and *Olli Varis*, Finland

### OPENING SESSION

**CHAIRS:** *Asit K. Biswas*, President, Third World Centre for Water Management, Mexico and *Dogan Altinbilek*, President, International Hydropower Association, Turkey

09:00 Introduction to the Seminar. *Asit K. Biswas*, Mexico

09:15 Water and Energy: Role of Hydropower. *Dogan Altinbilek*, Turkey

09:40 Water Demands for Bioenergy Production. *Olli Varis*, Finland

10:05 Coffee Break

### 10:25 High-level Panel Discussion

**MODERATOR:** *Asit K. Biswas*

**PANELLISTS** (in alphabetical order):

- *Veysel Eroglu*, Director General, DSI, Turkey
- *Martha Karua*, Minister of Water Resources, Kenya
- *Hinrich Mercker*, Director, Division of Environment, Energy and Water, InWent, Germany
- *Jamal Saghir*, Director, Division of Water and Energy, World Bank, Washington, D.C., USA
- *Klaus Töpfer*, Under Secretary-General and Executive Director, UNEP

12:00 Lunch

### TECHNICAL SESSION: PERSPECTIVES ON WATER AND ENERGY

**CHAIR:** *Aly Shady*, President, International Water Resources Association, Canada

13:00 Case of Brazil. *Benedito P. F. Braga*, Brazil

13:25 Case of China. *James Nickum*, Japan

13:50 Case of India. *C. D. Thatte*, India

14:15 Case Study from Indonesia. *Mikiyasu Nakayama*, Japan

14:40 Discussions

15:00 Coffee Break

### FINAL SESSION

**CHAIR:** *Dogan Altinbilek*, President, International Hydropower Association, Turkey

15:15 *Casio Viotti*, President, ICOLD, Brazil

15:40 *Peter Rae*, Chair, Hydro Tasmania, Australia

16:05 *J. M. Devernay*, Vice-President, EDF, France

16:30 Concluding Remarks. *Dogan Altinbilek*



## Can We Meet International Water Targets Without Fighting Corruption?

**Convenors:** Stockholm International Water Institute, Swedish International Development Cooperation Agency, Swedish Water House, Transparency International and Water and Sanitation Programme

Within public service institutions for water, corruption remains one of the least addressed challenges. Historically, bilateral and multilateral organisations and their clients more or less tacitly accepted corruption in public service delivery. Corruption was seen as a “necessary evil” and sometimes something that could “grease the wheels” of development efforts. In recent years, there has been an important shift in thinking and anti-corruption measures are now viewed as central to equitable and sustainable development. There is now also a growing body of studies showing that corrupt practices are detrimental to

economic efficiency and social equity and thus limiting the scope for development opportunities within the water sector. The seminar aims to illuminate corruption in the water sector and its consequences on water resources, water services and related institutions, particularly in light of international water targets. The seminar will comprise presentations of case studies and showcase efforts to combat corruption.

The seminar concludes with a roundtable that points to the ways forward.

### Programme

NL/ Room 456

**CHAIR:** *Mr. Piers Cross*, Water and Sanitation Programme – Africa, Kenya

09:00 Introduction

Welcome Address and Introductory Remarks by Convenors

09:20 Keynote Presentations

- Corruption – Widespread Problem but Good Chances to Fight it. *Mr. Hansjörg Elshorst*, Transparency International, Germany
- Transparency, Honesty and Corruption in the Water and Sanitation Sector: Lessons Learned from an E-Conference. *Mr. Laurent Stravato*, IRC, The Netherlands

10:15 Coffee Break

10:30 Case Study Presentations and Discussions – Understanding the Problems and Experiences in Controlling Corruption

- No Duck No Dinner: How Sole Sourcing Triggered Lesotho’s Struggle Against Corruption. *Mr. Anton Earle and Dr. Anthony Turton*, African Water Issues Research Unit
- Development of Anti-Corruption Sectoral Agreement among Pipe Manufacturing Companies: A Case Study of Colombia. *Ms. Alma Rocío Balcázar*, Transparency International, Colombia
- Water Management in the “Moral Hazard Trap”: The Example of Irrigation. *Dr. Walter Huppert*, GTZ, Germany

- Reducing Rent Seeking and Dissipative Payments: Introducing Accountability Mechanisms in Watershed Development Programs in India. *Mr. Crispino Lobo*, Watershed Organisation Trust, India

12:00 Lunch

13:00 Case Study Presentations and Discussions Continued. (Coffee Break 14.30–14.45)

- Corruption and Governance in South Asia. *Dr. Jennifer Davis*, MIT, USA
  - Fighting Corruption in Water Resources Management: A Case Study of the Nairobi Water and Sewerage Company (NWSC). *Mr. Jeremiah Owiti*, Centre for Independent Research, Kenya
  - Accountability in the Post-tsunami Reconstruction of Water and Sanitation Services in Aceh. *Ms. Janelle Plummer*, Water and Sanitation Programme, Kenya
  - Community Voice as an Aid to Accountability: Experiences with Citizen Report Cards in Bangalore. *Mr. Gopakumar K. Thampi*, Public Affairs Foundation, India
  - Improved Transparency and Service Using Site Selection as a Tool. *Mr. Laurent Stravato*, IRC, The Netherlands
- 15:30 Panel Discussion – How can Anti-Corruption Measures be made a Strong Part of the Water Agenda? Moderated by *Dr. Håkan Tropp*, Stockholm International Water Institute, Sweden

16:30 End of Seminar

# Prediction in Ungauged Basins (PUB): Data, Science and Policy

**Convenor: International Association of Hydrological Sciences**

Hydrological data are the cornerstone of hydrological science and engineering, but more importantly, the foundation for all water resources planning and policy making. The complete lack of data in many cases and the decline in existing hydrological networks worldwide are barriers to the development of robust policy. Without such data and information, Integrated Water Resources Management becomes a highly theoretical exercise. If we are to settle disputes among competing uses of water, a sound knowledge base is essential. Therefore, the International Association

of Hydrological Sciences (IAHS) has recently initiated the Prediction in Ungauged Basins (PUB) programme. This aims to evaluate the hydrological methods available for dealing with data-sparse catchments as well as provide a rational basis for establishing the worth of long-term data collection programmes. This seminar seeks contributions that provide examples of the necessity of hydrological data in the development of policy and water resources. Examples of where key deficiencies in hydrological networks and data in developing countries are particularly encouraged.

## Programme

## FH/Room 203

- |  |  |
|--|--|
| 08:45 Introduction and Overview of the PUB Problem   | 12:00 Managing Input Data and Parameter Estimation in a Global Water-Balance Model. <i>Prof. Sven Halldin</i> , Uppsala University, Sweden   |
| 09:00 Perspectives on PUB. <i>Prof. Jeff McDonnell</i> , Oregon State University, USA  | 12:30 Lunch  |
| 09:30 Assessing and Integrating the Hydrological Sciences – More Lessons to be Learnt?<br><i>Dr. Stewart Franks</i> , University of Newcastle, Australia             | 14:00 Integrated Water Resources Assessment and Modeling for Policy Making in Semi-arid Regions. <i>Dr. Thorsten Wagener</i> , Pennsylvania State University, USA  |
| 10:00 Is Hydrological Data Scarcity a Threat to Water Resources Development in Africa?<br><i>Dr. Rikard Lidén</i> , SWECO International AB, Sweden                   | 14:30 Systematic Modelling of Streamflow Responses to Rainfall Using Catchment Descriptors: A UK Perspective for the PUB Decade.<br><i>Dr. Ian Littlewood</i> , Centre for Ecology and Hydrology, UK         |
| 10:30 Coffee Break   | 15:00 Addressing Uncertainties in the Prediction of Water Use by Commercial Afforestation and Other Dryland Crops in Ungauged Basins. <i>Prof. Graham Jewitt</i> , University of KwaZulu-Natal, South Africa |
| 11:00 The Value of Data for Runoff Estimation in Ungauged Catchments. <i>Prof. Jan Siebert</i> , Stockholm University, Sweden  | 15:30 Open Discussion  |
| 11:30 The Value of Hydrological Process Understanding to Make Predictions in Data Scarce Regions. <i>Prof. Stefan Ulhenbrook</i> , UNESCO-IHE Delft, The Netherlands |  |



## Integrated Water Resources Management (IWRM) – Do We Practice It in the North?

**Convenor: Northern Water Network**

The Northern Water Network (NOWNET) is a network of country level water partnerships in the North, established to improve the sharing of knowledge and experience among North-North and North-South actors. NOWNET has been initiated by water partnerships and water forums in Australia, Denmark, Japan, the Netherlands and Sweden, in close co-operation with the World Water Council and the Global Water Partnership. NOWNET is encouraging and facilitating the creation of water partnerships in the North, and their participation in the global knowledge exchange.

The purpose of the seminar is to provide examples of how IWRM is – or is not – practised in Northern countries, and discuss these examples with stakeholders from North and South.

### Programme

**NL/Room 351**

- 14:00 Welcome
  - 14:10 Partnerships in the North – Presentation of the Northern Water Network. *Prof. Torkil Jøneh-Clausen*, Danish Water Forum, Denmark
  - 14:30 Presentations – including coffee break
    - Water Framework Directive and IWRM in Europe. *Dr. Henrik Larsen*, DHI – Water and Environment, Denmark
    - IWRM in the Netherlands. *Prof. Eelco van Beek*, Netherlands Water Partnership, the Netherlands
    - Swedish Practice of the EU Water Framework Directive. *Mr. Lennart Sorby*, Director, Swedish Water Authority for the North Baltic River Basin District, Sweden
    - IWRM as Practiced in the USA. *Dr. Jerome Priscoli*, US Army Corps of Engineers, USA
    - IWRM in River Basin Management in Japan. *Dr. Kenji Suzuki*, Project Leader for Planning, Japan Water Forum, Japan
  - 16:30 Panel Discussion
  - 17:00 Closing
- Refreshments will be served after the seminar.*



## Best Practices in the NGO Sector: The Role of Rotary Clubs in Supplying Safe Water to Communities Worldwide

**Convenor: Rotary International**

Rotary is an organisation of business and professional men and women who provide humanitarian service to communities in need. With 1.2 million members and 33,000 clubs worldwide, Rotary provides a network of volunteers in 166 countries. Rotary members recognise the importance of providing access to potable water and sanitation in suffering communities. The seminar will focus on how Rotary clubs and other NGOs have served as partners in the global fight for safe drinking water and sanitation.

### Programme

**FH/Hall C**

- 13:30 Introduction and Overview of Rotary International. *Dr. F. Ronald Denham*, General Coordinator, Water, Health & Hunger Resource Group, Rotary International, Canada
- 14:00 How Non-Governmental Organisations (NGOs) Combat the Issue of Water. *Dr. F. Ronald Denham*
- 14:30 Best Practices Example – Guinea Worm in Uganda. *Mr. Ron Cowan*, Rotary Club Member
- 15:00 Coffee Break
- 15:30 How Other Organizations can Collaborate with Rotary Clubs. *Mr. Ravi Narayanan*, Executive Director, WaterAid
- 16:00 Future Goals: How will NGOs Continue to Impact Water Issues? What are the Best Methods for Civil Society Participation? Facilitator: *Dr. F. Ronald Denham*
- 16:30 Open Discussion
- 17:00 End of Seminar

# The Political Economy of Defecation: Tales of Water and Excreta

## The Imperative of Rainwater Harvesting, Reuse and Recycling in Cities of the South

**Convenors: Centre for Science and Environment and Swedish International Development Cooperation Agency**

For many cities of the South, water demand and scarcity is increasing. Yet, increased water consumption and a lack of waste treatment facilities increases the untreated wastewater discharged into the environment, leading to pollution and stress on downstream users. Can cities of the industrialising South afford to adopt the capital and material intensive water-based sewage approach? Or will

they need to rethink the water and waste management paradigm?

The seminar will discuss the experiences of water and excreta management in cities and the emerging imperative for new eco-system based approaches in the field of water and sanitation and their wider application in the context of poverty eradication and of sustainable development.

### Programme

### FH/Hall B

**CHAIR:** *Dr. A Vaidyanathan*, Madras Institute of Development Studies, Chennai

- 13:30 Chairman's Opening Speech. *Dr. A Vaidyanathan*, Madras Institute of Development Studies, Chennai, India
- 13:45 Overview on the Water-sewage Imperative in Cities of South. *Ms. Sunita Narain*, Centre for Science and Environment, New Delhi, India
- 14:15 Case Study of Delhi and its River, Yamuna. *S.V. Suresh Babu*, Centre for Science and Environment, New Delhi, India
- 14:40 The City of Chennai: Its Water Use: Results of a Survey. *Dr A Vaidyanathan*, Madras Institute of Development Studies, Chennai, India

- 15:10 Bangalore-Kolar: Groundwater Use and Contamination. *K.V. Raju*, Institute For Social And Economic Change, Bangalore, India
- 15:30 Looking for New Sewage Paradigms. *R.K. Srinivasan*, Centre for Science and Environment, New Delhi, India
- 15:50 Ecological Sanitation – Helping to Meet the Millennium Development Goals. *Arno Rosemarin*, Stockholm Environment Institute, Sweden
- 16:10 Challenges Ahead and Our Common Agendas. *Ms. Sunita Narain*, Centre for Science and Environment, New Delhi, India
- 16:30 Questions and Discussions
- 17:00 End of Seminar

# Harnessing Uncertainty

## Taking Complexity and Vulnerability Seriously in Integrated Water Resource Management

**Convenor: The Resilience and Freshwater Initiative (Swedish Water House)**

**Co-Convenors: Centre for Transdisciplinary Environmental Research (Stockholm University), Stockholm Environment Institute, Institute for Social and Environmental Transition USA/Nepal and Stockholm International Water Institute**

Managers around the world somehow or another have to deal with the uncertainty inherent in water management such as sudden flooding, unexpected algae blooms, technological innovations, or unanticipated high levels of toxic pollutants in freshwater resources. In addition, uncertainties arise due to unpre-

dictable key drivers such as climate and technological change. This seminar explores why present rigid water governance systems might become outdated and even increase the vulnerability of key water resources, and how the concept of resilience shifts the perspective of integrated water resource management.

### Programme

### NL/Room 353

**CHAIR:** *Dr. Johan Rockström*, Executive Director, Stockholm Environment Institute

- 17:15 Opening Speech. *Dr. Johan Rockström*, Stockholm Environment Institute, Sweden
- 17:25 Complexity, Environmental Change, and the Design of Institutional Arrangements for Integrated Water Resource Management: Lessons from Watershed Management Efforts in the United States. *Dr. Mark T. Imperial*, University of North Carolina at Wilmington, USA
- 17:45 Eutrophication Policy Implications of a Regime Shift in the Baltic Sea. *Mr. Henrik Österblom*, The Swedish Environmental Advisory Council, Sweden

- 18:05 Does the European Water Framework Directive Build Resilience? – Harnessing Complexity and Uncertainty in European Water Resources Management. *Mr. Victor R. Galaz*, The Resilience and Freshwater Initiative/Centre for Transdisciplinary Environmental Research, Stockholm University, Sweden
- 18:25 Freshwater and Livelihood Resilience – Adaptive Strategies for Flood and Drought Mitigation in South East Asia. *Dr. Marcus Moench*, Institute for Social and Environmental Transition USA/Nepal
- 18:45 Water for Resilient Agriculture: A New Initiative. *Dr. Guoyi Han*, Stockholm Environmental Institute, Sweden

# World Water Week Plenary Day

Main Congress Hall

- 10:00 **World Water Week Opening Session**  
**CHAIR:** *Mr. Johan Kuylenstierna*, Project Director, Stockholm International Water Institute (SIWI), Sweden
- 10:00 **Cultural Event**
- 10:15 **Welcoming Speech**  
*Mr. Anders Bernzell*, Executive Director, Stockholm International Water Institute (SIWI), Sweden
- 10:25 **Official Opening Address of the 15th Stockholm Water Symposium**  
*Prof. Lena Sommestad*, Minister of the Environment, Swedish Ministry for Sustainable Development, Sweden
- 10:40 **Keynote Speaker**  
 Water Security in Developing Countries – A People Centered Approach.  
*H.E. Buyelwa Patience Sonjica*, Minister of Water Affairs and Forestry, South Africa
- 11:05 **Keynote Speaker**  
 Working Partnerships and Combined Approaches for Improved Water and Sanitation Services for the Poor. Empowering Experiences in Cali, Columbia. *Ms. Mariela Garcia Vargas*, CINARA, Universidad del Valle, Colombia
- 11:30 **2005 Stockholm Water Prize Laureate Lecture**  
 The Want and Waste of Water: The Paradigm Shift for Water Management in the South. *Ms. Sunita Narain*, Director, Centre for Science and Environment, India
- 12:00 **Lunch**
- 13:30 **Plenary Session**  
**CHAIR:** *Mr. Anders Bernzell*, Executive Director, Stockholm International Water Institute (SIWI), Sweden
- 13:30 Hydrosolidarity: Ample Opportunities for Human Ingenuity (15 Year Message Stockholm Water Symposia)  
*Prof. Malin Falkenmark*, SIWI, Sweden
- 13:40 IWRA Crystal Drop Award
- 13:45 **Stockholm Water Symposium Workshop Introduction Panel (see to the right)**  
**MODERATOR:** *Prof. Jan Lundqvist*, Chair, Scientific Programme Committee, Stockholm Water Symposium  
 Eight Stockholm Water Symposium Workshops will provide opportunities to explore different hard and soft solutions in drainage basins.
- 15:00 **Coffee Break**
- 15:30 **High Level Panel Discussion: "Large-Scale Water Infrastructure" (see to the right)**  
**MODERATOR:** *Mr. Nik Gowing*, BBC World
- 17:00 **End of Plenary Session**



Photo: SIWI



## Workshop Introduction Panel

Eight Stockholm Water Symposium workshops will provide opportunities to explore different hard and soft solutions in drainage basins.

To jump-start and stimulate workshop discussions on these key subjects, a special Workshop Introduction Panel will take place on the World Water Week's opening day. This panel event will enable attendees to gain a brief introduction to these concepts, to hear the panelists' thoughts on the linkages between the issues and to participate in an open dialogue with these leading experts.

### Panelists

- *H.E. Maria Mutagamba*, Ministry of Water, Lands and Environment, Uganda
- *Prof. Ben Braga*, Agencia Nacional de Aguas (ANA), Brazil
- *Dr. Steven Merrett*, Water Resource Economics and Management, United Kingdom
- *Ms. Perween Rahman*, Orangi Pilot Project Research and Training Institute, Pakistan
- *Dr. Eiman Karar*, Department of Water Affairs and Forestry, South Africa



## High Level Panel on Large-Scale Water Infrastructure

Photo: SIWI

**The 20th century saw major water infrastructure development on a massive scale. Today, this hard-solutions trend is decreasing. The reasons are complex, but one factor, undoubtedly, is that the construction of dams, for example, exacerbates tensions between different stakeholders. Such infrastructure can also be hard to maintain, both in terms of financing and management.**

Still, new water infrastructure (small- and large-scale) can be relevant in many developing countries to improve livelihoods, be it for gaining water security, generating power, or supplying agricultural, industrial or domestic needs.

With its 2002 report, the World Commission on Dams (WCD) attempted to improve the decision making process for such infrastructure. Planning, construction, operations and management were examined to ensure fair and equitable participation and benefit sharing from project development. Still, the WCD recommendations have not gained global acceptance among all actors, and while other initiatives such as the IHA Sustainability Guidelines have stepped in to try to fill the gap, resistance towards water infrastructure development nonetheless remains strong among many stakeholders.

Panel representatives from governments, the corporate sector, NGOs and multilateral organisations will address a number of related key issues. These include water infrastructure needs in coming decades, past experiences, equity and long-term benefits, responsibilities of different actors and stakeholders, and financing.

### Panelists

- *Mr. Mike Anane*, League of Environmental Journalists, Ghana
- *H.E. Martha Karua*, Minister of Water Resources Management and Development, Kenya
- *Mr. Steven R. Loranger*, President and CEO, ITT Industries, USA
- *Ms. Sunita Narain*, Director, Centre for Science and Environment, India
- *H.E. Buyelwa Patience Sonjica*, Minister of Water Affairs and Forestry, South Africa
- *Mr. Jamal Saghir*, Director, Energy and Water, World Bank
- *Ms. Victoria Tauli Corpuz*, Executive Director, Tebtebba (Indigenous Peoples' International Centre for Policy Research and Education), The Philippines
- *Dr. Richard Taylor*, Executive Director, International Hydropower Association Central Office, United Kingdom

## Side Events

A Plan to End Poverty:

FH/Room 300, 17:15–19:10

### Meeting the Millennium Development Goals by Investing in Development

**Convenors: Stockholm International Water Institute, Swedish Ministry for Foreign Affairs, Swedish Water House and UN Millennium Project**

This side event will give an overview of the Millennium Development Goals, the world's time-bound and quantified targets for addressing extreme poverty in its many dimensions, and discuss the conclusions of the UN Millennium Project and its Task Force on Water and Sanitation. The Project's final report, *Investing in Development*, is a cost-effective blueprint for cutting extreme poverty in half and radically improving the lives of at least one billion people in developing countries by 2015. The final report of the Task Force on Water and Sanitation, *Health, Dignity and Development*, outlines a series of actions in the water and sanitation sector critical to reaching the Goals. Presenters include: Mr. Anders Oljelund, Deputy Direc-

tor General for International Development Co-operation, Swedish Ministry for Foreign Affairs, Mr. Albert Wright, Co-Coordinator, UN Millennium Project Task Force on Water and Sanitation, H.E. Martha Karua, Minister of Water Resources Management and Development, Kenya, Mr. Ravi Narayanan, Director, WaterAid, Mr. Roberto Lenton, Co-Coordinator, UN Millennium Project Task Force on Water and Sanitation, the Earth Institute at Columbia University, Dr. Carlos Linares, Senior Water Advisor, UNDP. Moderator of Panel Discussion: Mr. Johan Kuylenstierna, Stockholm International Water Institute.



### Water-Related Risk Management

FH/Lilla Teatern Room, 17:15–19:00

**Convenors: Co-operative Programme on Water and Climate, Stockholm Environment Institute and Stockholm International Water Institute**

CPWC, in collaboration with SEI and SIWI, will discuss a first draft of a compendium document on Water-Related Risk Management under preparation by the Research Partnership of CPWC, with contributions from its partners and illustrated with international cases. After presentation of the outline, a guided discussion will be convened on the challenges for the development of vulnerability analyses and instruments to identify the risk-related hotspots at regional, basin, country and local levels. Examples of such vulnerability analysis tools as the Climate Vulnerability

Index, the Flood Vulnerability Index and the “Water Test” are invited. Attendees will also be invited to bring their own examples of vulnerability analysis to the meeting, for inclusion in the document. Presenters include: Chair: Prof. Dr. Pavel Kabat, Co-operative Programme on Water and Climate, Henk van Schaik, Co-operative Programme on Water and Climate, Dr. Madeleine van Mansfeld, Co-operative Programme on Water and Climate, Dr. Thomas Downing, Stockholm Environment Institute, Oxford, UK and Prof. Dr. Ir. Van Beek, WL Delft Hydraulics, The Netherlands.

## The Rainwater Advantage: Policy and Practice in Africa and India

FH/Room 307, 17:15–19:00

**Convenors: Centre for Science and Environment, Regional Land Management Unit (RELMA) at the World Agroforestry Centre (ICRAF)**

This side event will highlight the trans-continental collaboration between the Centre for Science and Environment and the Kenya-based NGO, RELMA in ICRAF. It will feature several presentations, including “The Imperative of Rainwater Harvesting” by Ms. Sunita Narain, Director, Centre for Science and Environment; “The India-African

Programme: What We Do and Why” by Ms. Sumita Dasgupta, Coordinator, CSE, and Mr. Malesu Maimbo, Coordinator, RELMA in ICRAF. The event will also include a panel discussion of key politicians/policy makers from India and Africa, entitled “Bringing to the Centre Stage the Issues that are Equally Relevant in both the Continents.”

## Meeting the MDGs and Strengthening the Competitiveness of the European Water and Sanitation Sector: Objectives, Goals and Achievements of the EU Water Supply and Sanitation Technology Platform (WSSTP)

FH/Room 203, 17:15–19:00

**Convenors: Swedish Water House, Water Supply and Sanitation Technology Platform, The Institute of Advanced Studies on Sustainability of EASA**

This side event will give an overview of the work performed within the EU WSSTP ([www.wsstp.org](http://www.wsstp.org)). The participants are invited to contribute recommendations to be considered in the formulation of (i) a vision, (ii) a strategic research agenda and (iii) an implementation plan. These three documents may serve as guidelines for structuring the research policy of the EU, focused on the achievement of the MDGs and on strengthening the Water and Sanitation sector within the EU in a short (2010), medium (2020) and long (2030) term.

The WSSTP is a European initiative, open to all stakeholders involved in European water supply and sanitation. Major achievements have been made over the past 15 months within the five thematic working groups (Water Management, Urban and Peri-Urban Water Systems, Water in Industry, Water in Agriculture, and Cross-Cutting Issues). The documents produced by these groups have been merged into three comprehensive documents ready for further discussion and refinement.

## Social Activity

**City Hall, 20:00–21:30**

### The Mayor's Reception

The Lord Mayor of Stockholm, on behalf of the City of Stockholm, is pleased to give an opening reception at the Stockholm City Hall for all World Water Week participants. Join your colleagues in Stockholm's beautiful City Hall, with its imposing facades and National Romantic style inspired by the palaces of the Renaissance.

**Price: By invitation of the City of Stockholm.**



Photo: SB

Workshop 1

# Design and Operation of Infrastructure for Multiple Development Objectives

Convenor: Stockholm International Water Institute

Co-convenor: IUCN – The World Conservation Union and World Water Council

**The workshop will focus on dams and reservoirs and their contribution to the socio-economic development of many countries in the world. In this context, the principle of sustainable development and the search for multi-purpose projects are crucial.**

## Entry Points for the Discussion

Infrastructure generally represents large investments and a cost-effective and safe management of such systems depends on qualified design and operation procedures. In water resources management, dams are crucial in providing storage capacity for river flow and regulation. But they are also a potential source of disturbances on the environment and particularly for people affected by the project. This fact also underlines the importance of strategic planning in implementation of new projects as well as in rehabilitation and upgrading of existing systems.

### Sustainable infrastructure systems

Every project is site specific in some sense and lessons to learn are therefore related to a proper understanding of these characteristics. Which are the crucial aspects in-

herently linked to the requirements of sustainability and multi-purpose objectives in project implementation?

### Dams and reservoirs in water resources management

Dams and water storage projects are urgently needed for securing access to safe and adequate water supply and food production and also for flood mitigation. In this context, they are often seen as the best option, especially when increasing problems and complexity due to climate change have to be taken into account. What can be done to provide legitimacy to dams and reservoirs as basic tools in water resources management?

### Experience from small and large-scale multi-purpose projects

Multi-purpose approaches are necessary for meeting a wide range of societal interests in infrastructure services. Experience and insight in these issues is a valuable platform for improving project implementation capacity. Is it then reasonable to assume that integration of different systems can offer better overall solutions and therefore may become more acceptable in society? In what way can differences in water resources project scale and cultural and environmental settings as a consequence lead to different water management alternatives?

## Programme

FH/Room 300

**CHAIR:** *Prof. Benedito Braga*, Brazilian Water Agency (ANA), Brazil

**RAPPORTEUR:** *Mr. Jakob Granit*, World Bank

**CO-RAPPORTEUR:** *Mr. Claus Hagebro*, Denmark

### 09:00 INTRODUCTION

09:10 *Mr. Ger Bergkamp*, IUCN\*

09:30 Design of the Multiple Objective Water Projects and Cost Sharing. *Dr. Kuppannan Palanisami*, India

09:45 Social, Environmental and Economic Impacts of the High Aswan Dam. *Dr. Cecilia Tortajada*, Mexico

10:00 Investment in 'Watery' Efficiency as a Strategy for Avoiding Costs of New Infrastructure: Cases in Mexico. *Ms. Margaret McMorrow*, USA

### 10:15 Discussion

10:30 Coffee Break

11:00 Enhanced Reservoir Operation for Securing Water Quality and Quantity in Water Stressed Areas. *Dr. Jochen Froebrich*, Germany

11:15 Hierarchy of Criteria for Integrated Water Resources Projects Prioritization. *Mr. Madhi Zarghaami*, Iran

11:30 Application of the Integrated Hydrologic-Economic Decision Support System: The Case of Bui Dam, Volta Basin. *Dr. Maria Plotnikova*, Germany

11:45 An Assessment of FCD Projects in Bangladesh. *Mr. Giasuddin Ahmed Choudhury*, Bangladesh

### 12:00 Discussion

**COMMENTATOR:** *Mr. John Briscoe*, World Bank

### 12:30 Lunch

### 13:30 Panel Discussion:

- Hydrologic Criteria for Development and Flood Mitigation in Drainage Basins of Semi-Arid Regions. Case Study: Wadi Watair Basin – South Sinai, Egypt. *Dr. Mohamed Ali Sonbol*, Egypt
- Operating the Sacramento River for Multiple Objectives in the Face of Climate Change: Developing Strategies through Stakeholders Processes. *Dr. Annette Huber-Lee*, USA
- Integrated Management of Inter-Basin Water Transfers: The Case of the Lesotho Highlands Water Project. *Dr. Mampiti Matete*, Lesotho
- Yacyreta Dam: The Social and Environmental Impacts of the Mega Dams. *Prof. Juan Miguel Picolotti*, Argentina
- Strategies for Flood Plains – Space for Nature or Human Living Space? *Prof. Heinz Patt*, Germany
- The Water Infrastructure Challenge in Victoria. *Ms. Robyn McLeod*, Australia

15:00 Coffee Break

15:30 **Final Discussion** – Challenges and Opportunities

17:00 End of Workshop Session

\* Indicates invited speaker

# Coping with Climate Variability, Climate Change and Water-Related Hazards

**Convenor:** Stockholm International Water Institute

**Co-convenors:** Co-operative Programme on Water and Climate, Swedish Meteorological and Hydrological Institute, Swedish Institute for Climate, Science and Policy Research at Linköping University and World Meteorological Organization

**This workshop will focus on the proper combination of soft and hard solutions that would increase the ability of society to cope with climate variability, change and hazards related to these. Management approaches (soft solutions) which elaborate on necessary infrastructure development (hard solutions), and the combination of both, will be presented. Examples from developing and developed countries will help to illustrate variation in approaches and to what extent experiences can be shared between different parts of the world.**

## Entry Points for the Discussion

The ability to cope with climate variability and change is crucial for related long-term sustainable development in general (food, agriculture, water quality and quantity) and water management in particular. This dialogue aims at identifying concrete, realistic and low-cost solutions in order to cope with climate variability, change and water-related hazards.

### Drainage basin management

How and to what extent should management concrete-

ly be adjusted in order to decrease the potential risk of climate-induced damages?

### Hard and soft solutions

Which hard and soft solutions are most effective in specific climate regions and how can their effectiveness be evaluated? Can new warning systems be developed and planning improved? How can this be achieved at a regional level?

### Sharing of experiences

How and under what circumstances can successful approaches be transferred to other areas (increasing awareness) within the same climate region and what are the criteria for a successful coping strategy in general? Training courses?

### Mainstreaming water and climate into the international development agenda

Can the current support mechanisms for adaptation in developing countries (IWRM plans) be improved? Is creating a new MDG for risk management warranted and/or feasible and would more science on the relations between risks (climate) and MDGs help?

## Programme

FH/Room 307

**CHAIR:** *Dr. Avinash Tyagi*, World Meteorological Organization

**CO-CHAIR:** *Prof. Sten Bergström*, Swedish Meteorological and Hydrological Institute, Sweden

**RAPPORTEUR:** *Mr. Henk van Schaik*, Co-operative Programme on Water and Climate

**CO-RAPPORTEUR:** *Dr. Thorsten Blenckner*, Uppsala University, Sweden

### 09:00 Introduction

09:10 Climate, Science and Policy Beyond 2012. *Prof. Gunilla Öberg*, The Swedish Institute for Climate Science and Policy Research at Linköping University, Sweden\*

09:40 Mitigating the Greenhouse Effect by Sequestering Carbon by Woods Planted in Dry-Zones, Utilizing Wasted Water Resources. *Prof. Arie S. Issar*, Israel

10:00 Mainstreaming Climate Adaptation in Watershed Management in Northwest India. *Mr. Holger Hoff*, Germany

### 10:20 Discussion

10:30 Coffee Break

11:00 Implementation of INMAS Strategy, Coping with Climate and Water Related Hazards in Sri Lanka. *Mr. Meegasmullage Sirisena*, Sri Lanka

11:20 Multi-Agent Modelling of Climate Outlooks and Decision Making on a Community Irrigation Scheme in Limpopo, South Africa. *Dr. Thomas E. Downing*, UK

11:40 Role of Watershed Development Programs in Augmenting Groundwater Resources Through Recharge.

*Ms. Sarbani Mukherjee*, India

12:00 Lunch

13:30 Climate Variability and EU Water Policy? *Mr. Oldrich Novicky*, T.G. Masaryk Water Research Institute, Czech Republic\*

14:00 Strategies to Cope with the Climate Variability and Change in the Murray-Darling Basin, Australia. *Mr. Awadhesh Prasad*, Australia

14:20 Quantifying Nutrient Transport Impacts of Future Climate and Regional Development Scenarios in the Swedish Norrström Drainage Basin. *Ms. Amélie Darracq*, Sweden

### 14:40 Discussion

15:00 Coffee Break

15:30 Assessment of the Water Resources Vulnerability of Belarus to Climate Change. *Dr. Mikhail Kalinin*, Belarus

15:50 Lake Nasser Management, Integration with Risks Posed by Climate Changes. *Dr. Mohamed Abdel Aty Sayed*, Egypt

16:10 Climate Change impact on the Water Resources of Eastern Caucasus (Kura basin) Rivers and ways of its Mitigation. *Dr. Rafiq Verdiyev*, Azerbaijan

16:30 **Final Discussion** – Challenges and Opportunities

17:00 End of Workshop Session

\* Indicates invited speaker

Workshop 4

# Tailoring Water and Sanitation Solutions to Reach the Millennium Development Goals

**Convenor:** Stockholm International Water Institute

**Co-convenors:** International Water Association and Water Environment Federation

**The issues fundamental to the global water and sanitation challenge are complex and progress will require a multifaceted approach involving a diverse group of stakeholders operating on an international, regional, national, and local basis.**

## Entry Points for the Discussion

### Governance and the role of policy, regulations, and local institutions

What regulatory and governance steps can be most effective? How to facilitate transparency and oversight? How can the optimal technical and policy approach be identified for a specific location? How can local input/control contribute to sustainable solutions? What role can participatory processes and community education/empowerment play?

### Funding, affordability and equity

How should improvements in local systems be funded – by full cost recovery? If so, how can the needs of the

poor be addressed? Can “revolving” funds and selective subsidies play a role? What is the future of public/private partnerships? How can international donors and funding organizations best serve as catalysts?

### Identifying appropriate technology

What factors should be considered in choosing or designing the most appropriate technology solution for a specific location? To what extent and how can lessons learned be transferred and replicated elsewhere? What characterises a sustainable technology or management option? What are the related institutional, cultural, and public education issues?

### Taking action

The major issue is: Where do we go from here – what key steps should be taken? How can we learn from the examples presented in the workshop and what is the potential for replicability?

## Programme

FH/Hall A

**CHAIR:** *Mr. Paul Reiter*, International Water Association

**CO-CHAIR:** *Mr. Bengt Johansson*, Swedish International Development Cooperation Agency (Sida), Sweden

**RAPPORTEUR:** *Mrs. Lynn Orphan*, Water Environment Federation

**CO-RAPPORTEUR:** *Dr. Gunilla Brattberg*, Stockholm Water Company, Sweden

### SESSION 1: NATIONAL INSTITUTIONS AND SYSTEMS

09:00 **Introduction** (Chair)

#### KEYNOTE SPEAKER:

09:05 *Mr. Piers Cross*, Water and Sanitation Programme, Nairobi, Kenya\*

09:35 Decentralization as a Tool for Optimizing Rural Water Supply and Sanitation Sector Service Delivery Mechanism – Experience in Sri Lanka. *Mr. Dahanayake Kamal*, Sri Lanka

09:45 Catchment Area Management in Transition Economies: The Bregalnica River Basin Management Approach, Macedonia. *Dr. Daniel Wild*, Switzerland

09:55 “Use Now, Pay Later”: An Innovative Approach to Increasing Access to Improved Latrine Facilities in Rural Communities in Ghana. *Mr. Benjamin Arthur*, Ghana

10:05 **Panel Discussion with Speakers/Questions from Participants**

10:35 Coffee Break

### SESSION 2:

#### COMMUNITY AND LOCAL GOVERNMENT LEVEL INSTITUTIONS

11:00 **Introduction** (Chair)

11:05 Reaching the Millennium Development Goals. Financing and Institutional Mechanisms: The Need to Innovate. *Mr. Alain Mathys*, Ondeo Services, France\*

11:35 Poverty and Water Action in Rural Nepal. *Ms. Sanna-Leena Rautanen*, Finland

11:45 A Community Based Water and Sanitation Solution for the Slums in Dhaka City. *Ms. Saila Parveen*, Bangladesh

11:55 Cost Recovery and Affordability Challenges for Small Urban Water Supply Schemes: A Case Study of Rakai Town, Uganda. *Mr. Kasinye Kyamugambi*, Uganda and *Mr. Mark Rubarenzya*, Belgium

12:05 Building Dignity, Not Toilets. *Ms. R.V. Jayapadma*, India

12:15 Lunch

13:30 Panel Discussion with Speakers/Questions from Participants

### SESSION 3: TECHNICAL OPTIONS AND INNOVATIONS

14:00 **Introduction** (Chair)

14:05 Selecting Appropriate Technologies [...]. *Dr. Julian Sandino*, Black and Veatch, USA\*

14:35 Recycling of Grey Water in Cyprus. *Dr. Chrysostomos Kambanellas*, Cyprus

14:45 Appropriate Technologies for Wastewater Treatment and Reuse in the Rural Areas of the Middle East – Case Study of Successful Regional Cooperation. *Mr. Isam Sabbah*, Israel

14:55 Harvesting Human Urine in Tepoztlán, Mexico: Cultural, Logistical and Institutional Challenges for Closing the Nutrient Loop to Urban Agriculture. *Mr. Ron Sawyer*, Mexico

15:05 Coffee Break

15:30 Applying Appropriate Technologies and Participatory Approaches to Water Management: Lessons from the Field. *Mr. Mario Kerby*, USA

15:40 Arsenic-Safe Aquifer as Sustainable Source of Drinking Water Supply: A Case Study from Matlab Thana in Southeast Bangladesh. *Dr. Prosun Bhattacharya*, Bangladesh/Sweden

15:50 **Panel Discussion with Speakers/Questions from Participants**

16:20 **Final Discussion** – Challenges and Opportunities

17:00 End of Workshop Session

\* Indicates invited speaker

## Workshop 5

# Strategies to Increase Resource Use Efficiency in Industrial and Agricultural Sectors

Convenor: Stockholm International Water Institute

Co-convenor: World Business Council for Sustainable Development

The workshop will focus on the combination of hard and soft approaches available which aim to increase water use efficiency and pollution minimisation in industry and agriculture. Examples from different regions will help to illustrate variation in approaches.

### Entry Points for the Discussion

As strong driving forces keep increasing the pressure on finite water resources, it is getting more and more essential to increase water use efficiency and minimise water pollution in both agriculture and industry. This will call for new strategies and a combination of hard and soft approaches.

#### How should resource use efficiency be interpreted?

What are the differences and linkages between social, environmental and economic resource use efficiency?

#### What realistic strategies are there to increase agricultural water use efficiency?

What are the technical components in rain fed agriculture, what data support is needed, and what are the barriers to implementation among smallholder farmers in Sub-Saharan Africa and South Asia? What are the technical components in irrigated agriculture, how complex is the effort to

implement, and what are the main barriers to be overcome? What are the suitable soft components that will encourage and support increased water use efficiency?

#### What realistic strategies are there to increase industrial water use efficiency?

What are the key technical components for improving process water efficiency and for minimising pollution outflow to maximise downstream water usability? What are the key soft components in terms of incentives to initiate and stimulate increased water use efficiency?



Photo: SIWI

## Programme

FH/Hall B

**CHAIR:** *Mr. Robert Martin*, World Business Council for Sustainable Development

**RAPPORTEUR:** *Ms. Ulla-Britta Fallenius*, The Swedish Environmental Protection Agency, Sweden

**CO-RAPPORTEUR:** *Prof. Ausaf Rahman*, USA

### SESSION 1:

#### 09:00 Introduction

09:10 Valuing a Critical Resource: Innovative Water Approaches Taken by Industry. *Ms. Jan Dell, P.E.*, Vice President, Industrial Business Group\*

09:40 Producing More Food with Less Water: Finding Synergies When Faced with Trade-offs. *Dr. Johan Rockström*, Sweden\*

10:10 Participatory Decision Making Model for Regional Hydro-System Nadela in Serbia: Case Study. *Ms. Zorica Srdjevic*, Serbia and Montenegro\*

10:30 Coffee Break

### SESSION 2: PANEL – AGRICULTURAL EFFICIENCY

11:00 Increasing Land and Water Resources Use Efficiency Through Nutrient Amendments and Supplementary Irrigation-A Case of Manyame River Basin in Zimbabwe.

*Mr. Edward Guzha*, Zimbabwe

- Assessing Physical Efficiency of Small Reservoir Irrigation Systems Through Integrative Watershed Modelling.

*Dr. Luna Bharati*, Germany

- Water Efficiency – A Sustainable Way Forward for Oman. *Ms. Andrea Turner*, Australia

- BMP Strategies to Increase Water Sustainability in Commodity Supply Chains. *Mr. Richard Holland*, The Netherlands

- Participatory GIS for Planning Efficient Water Resource Management Towards Improved Agricultural Productivity in Canal Command Areas. *Dr. Biplab Saha*, India

12:00 Lunch

### SESSION 3: PANEL – INDUSTRIAL EFFICIENCY

13:30 Rainwater Harvesting for Industries Case Study in Bangalore, South India. *Mr. Vishwanath Srikantaiah*, India

- Effectiveness of Cleaner Production on Water Resources Contamination Control. *Prof. Ines Restrepo-Tarquino*, Colombia

- The Reuse of Water in Mediterranean Stressed Industrial Districts: The Experience of the Textile District of Prato, Tuscany Region, Italy. *Mr. Giorgio Cesari*, Italy

- Water Use Efficiency in Industrial Sector, Myth or Reality: Experience of a Textile Cluster in South India.

*Mr. Prakash Nelliya*, India

14:30 Coffee Break

### 15:00 SESSION 4: GENERAL DISCUSSION – CHALLENGES AND OPPORTUNITIES

17:00 End of Workshop Session

\* Indicates invited speaker

Workshop 6 A

# Political and Social Negotiation Processes: Sustainability and the Politics of Water

Convenor: Stockholm International Water Institute

Co-convenors: Global Water Partnership, Stakeholder Forum and Water Supply and Sanitation Collaborative Council

The workshop will focus on the following issues: how can true participatory dialogue among all parts of society involved in and affected by a water decision be arranged? What are the different ideological backdrops against which actors are basing their decisions?



Photo: Mats Larnerstad

## Entry Points for the Discussion

### Stakeholders and societal negotiation processes

Who shall formulate the agenda? What is the role of different stakeholders? Are they supposed to cover their own limited group interests or should each stakeholder at the same time be regarded as responsible in relation to society as a whole?

### Institutional sustainability

Different circumstances and situations require different institutional solutions. What kind of arenas and institutional arrangements will facilitate constructive dialogue? Can barriers be identified that systematically hinder dialogue?

### Mechanisms for sound transboundary water management

Transboundary water politics is an area receiving strong attention from the international community. The World Bank is investing heavily in the Nile Basin Initiative (NBI) and other development partners are seeking ways to promote co-operation over shared watercourses. How can increased sustainability and equity be achieved in this area? Does international law have a role to play? Is there a need for increased “third-party” involvement?

## Programme

FH/Hall C

**CHAIR:** *Mr. Emilio Gabbrielli*, Global Water Partnership

**CO-CHAIR:** *Mr. Gourisankar Ghosh*, Water Supply and Sanitation Collaborative Council

**RAPPORTEUR:** *Mr. Felix Dodds*, Stakeholder Forum, UK

**CO-RAPPORTEUR:** *Prof. Peter Söderbaum*, Mälardalen University, Sweden

09:00 Introduction

### STAKEHOLDER PERSPECTIVE AND RELATIONSHIPS

09:10 Social Processes Strengthen the Political Negotiations for Change. *Ms. Perween Rahman*, Oranji Pilot Project, Pakistan\*

09:30 Women in the Water World. *Ms. Tatiana Bogdanova*, Belarus

09:45 The Gap Between Theory and Practice of Consensus Building in South Korea: The Case of the Hantan River Dam. *Dr. Jaekyung Koh*, Korea

10:00 Negotiation or Neglect? Interface of Positive Discriminatory Policy and Professional Ideologies. *Dr. Pranita Bhushan Udas*, Nepal

10:15 Towards Sustainable Equitable Management of Water in Nairobi City: Enhancing the Participation of Women in Water Management Discourse. *Ms. Beatrice M. Khabakali*, Kenya

10:30 Coffee Break

### PANEL 1: INSTITUTIONAL ARRANGEMENTS

(5 min introduction and 6–7 min each followed by dialogue)

11:00 Economic, Political and Environmental Risks with Bulk Water Supply BOTs. *Mr. David Hall*, United Kingdom and *Mr. Emanuele Lobina*, United Kingdom

- Conflicts of Sustainable Water Access. The Dilemma Between the Social and Economic Values of Water in Poor Countries.

The Case of Bolivia. *Mr. Jose Francisco Chanez Mendina*, Bolivia

- Bureaucracy and Irrigation Reforms: Lessons from Andhra Pradesh, India. *Mr. Bala Raju Nikku*, India

- Watering the Slums: Resistance and Reform in Bangalore’s Public Water Sector. *Ms. Genevieve Connors*, Singapore

12:00 Lunch

### PANEL 2: INSTITUTIONAL ARRANGEMENTS – GOVERNANCE AT NATIONAL, REGIONAL AND METROPOLITAN LEVEL

(5 min introduction and 6–7 min each followed by dialogue)

13:30 Institutional Development for the Water Sector in Honduras.

*Ms. Patricia Phumpiu*, Sweden

- Assessing the Influence of Cultural Differences Between Suppliers and Users of Environmental Information on Informed Decision Making. *Ms. Ernita van Wyk*, South Africa

- Basin Management in a Metropolitan Setting – Soft Solutions for a Hard Problem. *Ms. Margaret Pageler*, USA

- Pollution Prevention in India: HyWaMIS (Hyderabad Water Management Information System) – An Integrated Approach. *Dr. Rattan Dhar*, India

- Use of a Methodology to Support the Design of a Multi-Stakeholder Platform in the Case of a Water and Sanitation Project in Tiquipaya (Bolivia). *Mr. Vladimir Cossio*, Bolivia

14:30 Coffee Break

15:00 Discussion – Challenges and Opportunities

17:00 End of Workshop Session

\* Indicates invited speaker



## Workshop 1

- Environmental Impact Assessment of Greater Dhaka Flood Protection Structures. *Prof. M. Habibur Rahman*, Bangladesh
- Multipurpose Development Through Rubber Dam Projects in Bangladesh: A Cost Effective and Improved Technology for Water Management. *Ms. Reba Paul*, Bangladesh
- Southeastern Anatolia Project: A Sustainable Integrated Regional Development Project. *Prof. Osman Ozdemir*, Turkey
- Water Level Change in Wells Along the Dead Sea Jordan Rift Valley, A Predictor for Earthquakes? *Prof. Akiva Flexer*, Israel
- Possibility of Improvement of Management the Dnepr Reservoirs in Conditions of Emissions of Radioactive Pollution. *Mr. Vladimir P. Sizonenko*, Ukraine
- Design and Operation of the Water Infrastructures for Multiple Development Objectives: Uzbekistan's Initiatives in Syrdarya River Basin. *Prof. Umid Abdullaev*, Uzbekistan
- Japan's Expansion of Rural Water Supply and Innovative Water Purification Membrane Technology: New Possibilities for Assisting Developing Countries. *Prof. Masahiro Fujiwara*, Japan
- Features of Complex Use of Water Resources in Natural-Technical Systems. *Prof. Konstantine Bziava*, Georgia
- Realization of the Program of Reconstruction And Modernization of the Water-Sewer Economy of City of Cherepovets. *Dr. Sergey Iljin Narcisovich*, Russian Federation

## Workshop 2

- Livelihood Vulnerability and Climate Change: Lessons from Challenges and Responses from India. *Mr. Srinivas Mudrakartha*, India
- Vulnerability to Flood Hazards: Adaptation and Coping Mechanisms in Two River Basins in India and Nepal. *Dr. M. Monirul Qader Mirza*, Canada
- Influence of Climate Warming on Hydrological Regime of Lakes and Reservoirs of Belarus in the Years from 1988 to 2002. *Ms. Irina Danilovich*, Belarus
- The Recent Northern Hemispheric Drought: Implications for Drought Mitigation and Transboundary Water Flows. *Dr. Alexander Lotsch*, USA
- Understanding Water-Related Disaster Through Geohazard Survey and Assessment. *Ms. Yolanda Gomez*, The Philippines
- Impacts of Climate Change on Design Floods for Dam Safety in Sweden. *Mr. Johan Andréasson*, Sweden
- Global Change and the Effects on Industrial Water Use in the Catchment Area of the Upper Danube. *Mr. Matthias Egerer*, Germany

## Workshop 4

- Faecal Coliform Removal in WSP Effluents by a Coupled Dynamic Roughing Filters and Subsurface Horizontal Flow Constructed Wetland in Tanzania. *Dr. Richard Kimwaga*, Tanzania
- Meeting the MDG on Sanitation in Asia: Learning from the Japanese Experiences. *Dr. Mushtaq Ahmed Memon*, Pakistan/Japan
- Applying Water Resources Management Techniques. *Mr. Nicholas Senyonjo*, Uganda
- Local Community Responsive and Participatory Initiatives to Meet the Millennium Development Goals on Water and Sanitation. *Ms. Carolyne E. Nabalema*, Uganda
- Cost Optimization in Small Towns Water Supply Project Implementation and Management. *Mr. Dabanayake Kamal*, Sri Lanka
- The Use of Natural Plant Coagulants in Removal of Bacteria, Bacteriophage and Clay Particles from Turbid Waters. *Mr. Bijan Bina*, Iran

- Tailoring Water and Sanitation Solutions to Eradicate Extreme Poverty in Sri Lankan Circumstances. *Mr. Meegasmullage Sirisena*, Sri Lanka
- Demand Responsive Approach for Rural Water Supply Project: Case Study Experiences. *Mr. Mohamed Aheeyar*, Sri Lanka
- A Single Planning Framework Applicable to Urban Water Management Around the World: An International Demand Management Framework. *Prof. Stuart White*, Australia
- Rainwater Harvesting and Ecological Sanitation-Made for Each Other in India. *Mr. Vishwanath Srikantaiah*, India
- First Eco-San-Toilet in Ukraine: Cooperation for Sustainable Rural Development. *Ms. Anna Tsvietkova*, Ukraine
- Public and private urinals in an Ecosan project – a rapid way to sensitise the population. *Dr. Theophile Gnagne*, Ivory Coast

## Workshop 5

- Water and Natural Resource Management: Experiences of the Traditional Water Wisdom. *Dr. Ram Boojh*, India
- Regenerative Aquaponics: Integrating Fish and Vegetable Production To Optimize Wastewater and Nutrient Recycling for Urban Food Production. *Dr. Eli Rogosa Kaufman*, Israel/USA
- Thirty Years of Research and Outreach to Improve Water and Soil Resources in Rain-Fed Agricultural Areas of the Pacific Northwest Region of the USA. *Dr. Robert Mahler*, USA
- Extension Service as a Tool to Increase Productivity of Irrigated Agriculture in Central Asia. *Dr. Vadim Sokolov*, Uzbekistan
- The Analysis of Yellow River Water Regulation During Emergent Drought Period in 2003. *Ms. Ke Sujuan*, China
- Results of the Demonstration Projects Implementation in Agriculture and Industry in the Neman River Basin. *Dr. Aliaksandr Pakhomau*, Belarus
- Impact Assessment of Industrial Wastewater Disposal into Irrigation Drainage System – Case Study. *Prof. Iman Elazizy*, Egypt
- Quantification capability requirements for efficient decrease of combined agricultural, industrial and household water pollutant loads in a catchment. *Mr. Georg Lindgren*, Sweden

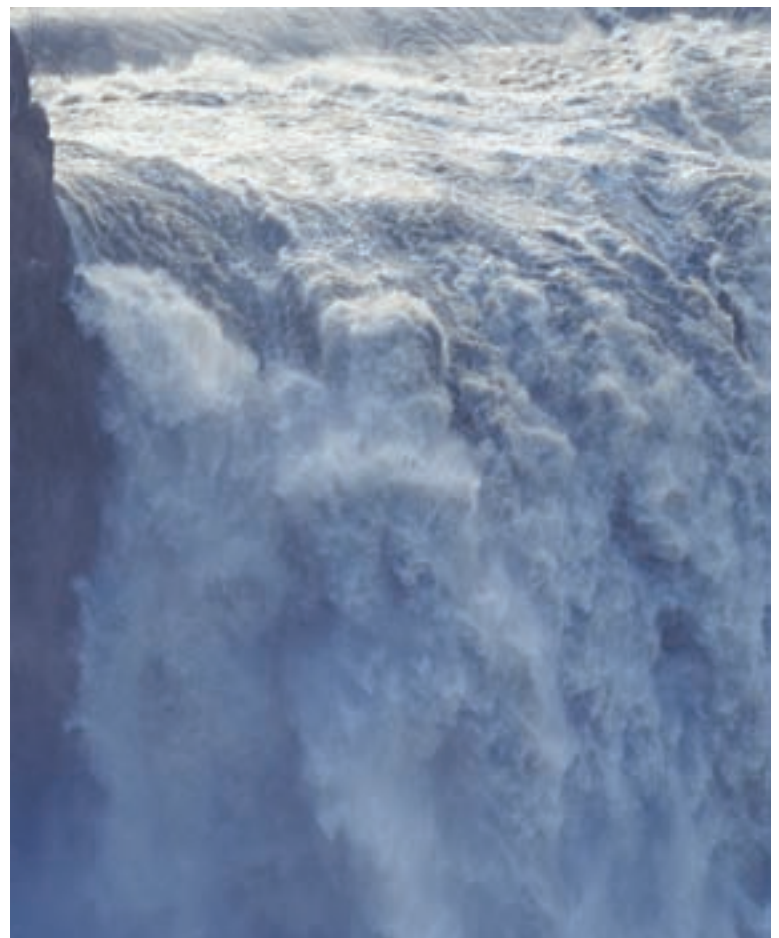


Photo: SIWI



Photo: Mats Lannerstad

FH/Room 203, 17:15–19:00

## Building Capacity in the African Water and Sanitation Sector

**Convenor: Partners for Water and Sanitation (PAWS)**

PAWS is a tri-sector partnership between the United Kingdom Government, civil society and private sector that assists countries in Africa with work in the provision of clean water and adequate sanitation. The Type II UN registered partnership was founded at WSSD in 2002, and currently works with South Africa, Nigeria and Uganda.

Each partner organisation has a unique set of skills and expertise, which are directed to areas of need and priority that have been identified together with the partnering country at a national or local level and aiming to work alongside existing water and sanitation programmes. The emphasis of partner involvement is on capacity building in the institutional, financial or technical area, to ensure the sustainability of projects and potential for replication.

PAWS Chair *Mr. Ashley Roe* will present lessons learned from the tri-sector approach and a case study from Benue State in Nigeria.

**Contact person:**

*Ms. Anne Lise Due*, PAWS Secretariat, [secretariat@partnersforwater.org](mailto:secretariat@partnersforwater.org)

FH/Room 307, 17:15–19:00

## IWRM and Local Conflict

**Convenors: Local Conflict Group (Swedish Water House)**

Research and experience has underlined that the risk of conflicts in connection with water is greater in local settings than on the transboundary level. The Water and Local Conflict Group will present a report containing ideas on how conflict analysis and the monitoring of potential conflict issues can lower the risk for problems in Integrated Water Resources Management (IWRM) and water projects.

# Global Review of Private Sector Participation in Water Supply and Sanitation

FH/Room 300, 17:15–19:00

Convenor: The International Working Group Guiding the Global Review of PSP

The Global PSP Review originated from the increasing costs of conflict linked to private sector involvement in water and sanitation. Controversies associated with PSP continue to polarise the water sector, taking up energy and resources that could be better spent extending access. The “Global Review of Private Sector Participation in Water Supply and Sanitation (Global PSP Review)” is a multistakeholder initiative that aims to assist in reaching the MDGs. Under the guidance of an International Working Group, national dialogues provide a balanced bottom-up assessment of experience with private sector delivery of water and sanitation, use the review to strengthen ongoing national water supply and sanitation programs, and feed lessons to the global level review process. National Multistakeholder dialogues are being developed and implemented in Brazil, South Africa, Uganda, the Philippines and Indonesia.

Come and meet members of the International Working Group at this side event, to discuss initial lessons from the national dialogues and to see how to participate in this initiative. We especially appreciate donor agencies and IFIs to share their experiences and views with us.

Support for the PSP Review has been provided by BMZ and GTZ.



Photo: Mats Lamerstedt

## Award Ceremony

### Stockholm Junior Water Prize

19:00, Main Conference Venue, Groundfloor Area

**The Stockholm Junior Water Prize was awarded for the first time in 1995 to encourage the interest of the next generation in water and science issues. Since 1997 the Prize is awarded internationally and the competition is open to young people up to the age of 20 who have completed a water-related project. The projects can be performed individually or in a group, and may focus on a local, regional or global problem.**

The Prize, worth USD 5,000, is presented during the World Water Week in Stockholm. HRH Crown Princess Victoria of Sweden is the Patron of the Stockholm Junior Water Prize.

For these young water enthusiasts, the World Water Week provides an opportunity to meet top world water experts convening in Stockholm at the same time, participate in seminars, visit research and technical facilities and attend cultural and social events. This year, around 30 countries are participating in the competition in Stockholm. The competing projects deal with a wide variety of topics, from the development of advanced technical devices to aspects of relevance for the implementation of the Millennium Development Goals, from simple local solu-

tions for dry countries to innovative pollution abatement ideas, dissemination of key results and public awareness campaigns to the local population.

The winner will be announced during the Award Ceremony on the evening of Tuesday, August 23, in Dansens Hus, a part of the World Water Week main venue. A meeting for representatives of the National Organisers in the participating countries will also be arranged.



Photo: SIWI

Workshop 3

# Water Provision Across Sectors and Jurisdictions

Convenor: Stockholm International Water Institute

Co-convenors: International Water Association and International Water Management Institute

The workshop will focus on intersectoral and interregional transfers of water, and maintenance of water quality, to meet the resource needs of the future. Transfers will also include re-allocations from one sector to another, for instance, from uses which yield a low return per flow unit of water to activities that promise to give a comparatively high return per unit water flow. The workshop will consider an integrated approach to supply cities and agriculture through cascading use, re-use and re-allocations of available water resources.

### Entry Points for the Discussion

With a concentration of human activities in urban centres and to some regions and with a growth in national aggregate demand for water services, it becomes necessary to scrutinise principles for water allocation and options for re-use. However, the long-term social, economic and environmental opportunities and challenges of water transfers, re-allocations and re-use have not been adequately considered. To meet the increasingly complex mix of sectoral and regional demands on water, a combination of hard and soft solutions approaches is essential.

### Inter-sectoral issues

Water is not only flowing by gravity, but also towards sites and sectors where financial and other resources are available. Is there a need for mechanisms that restrain or stimulate an increase in the inter-sectoral and inter-jurisdictional transfer of water?

### Technical and economic aspects

What are the technical, socioeconomic and environmental considerations and solutions that could facilitate or hinder projects aiming at a transfer or re-use of water across sectors and jurisdictions?

### Water quality consideration in the developmental context

Water supply and sanitation remains a huge challenge in low-income countries with severe environmental and human health implications, for example where urban wastewater is used for irrigation. How can we link “water supply and sanitation” and “water and agriculture” across the urban-rural divide?

### Policy implications

What are the policy principles that facilitate the necessary transfers, re-allocations and re-use of water in a national and regional development context? Which institutional arrangements are appropriate for the implementation of such a policy?

## Programme

FH/Room 300

**CHAIR:** *Prof. Olli Varis*, Helsinki University of Technology, Finland

**CO-CHAIR:** *Dr. Pay Drechsel*, International Water Management Institute, Ghana

**RAPPORTEUR:** *Dr. Anders Jägerskog*, EGDI, Ministry for Foreign Affairs, Sweden

### 09:00 Introduction

09:10 Urban Water Management: Is the River Basin Enough?  
*Prof. Ben Braga*, Brazil\*

09:30 Potential and Options for the Use of Partially or Untreated Urban Wastewater in Agriculture: An African Perspective.  
*Mr. Pay Drechsel*, Ghana\*

09:50 Sustainable Urban and Rural Water Supplies in Australia.  
*Mr. Barry Lewis*, Australia

### 10:05 Discussion

10:30 Coffee Break

11:00 Protecting Natural Capital Such as Water Across Sectors and Jurisdictions While Meeting the Resource Needs of the Future by Using the Net Gain Principle. *Mr. Erik Veldman*, Canada

11:15 A Water Soft Path for Ontario, Canada: Barriers and Opportunities. *Mr. Robert Patrick*, Canada

11:30 Agricultural Development and Secured Urban Water Supply – Case Study of the Umbeluzi River in Swaziland and Mozambique. *Mr. Rikard Lidén*, Sweden

11:45 Planning for Environmental Flows: An Advanced Least Cost Approach to Sydney’s Demand-Supply Balance.  
*Prof. Stuart White*, Australia

### 12:00 Discussion

12:15 Lunch

13:30 Realisation of Sustainable Development: Efficiency and Equity in Water Resource Management.  
*Ms. Hanlie Hattingh*, South Africa

13:45 Economic Instruments for Efficient, Sustainable and Equitable Water Demand Management: Lessons for Developing Countries.  
*Ms. Durba Biswas*, India

14:00 Introducing a Realistic Water Pricing Regime in Urban Local Bodies. *Mr. Aniruddhe Mukerjee*, India

14:15 Quantitative Cross-Sectoral Analysis of Water and Pollutant Cycling in Catchments. *Mr. Christian Baresel*, Sweden

### 14:30 Discussion

15:00 Coffee Break

15:30 **Final Discussion** – Challenges and Opportunities

15:45 End of Workshop Session

\* Indicates invited speaker

## Workshop 6 B

# Political and Social Negotiation Processes: Sustainability and the Politics of Water

Convenor: Stockholm International Water Institute

Co-convenors: Global Water Partnership, Stakeholder Forum and Water Supply and Sanitation Collaborative Council

**The workshop will focus on the following issues: how can true participatory dialogue among all parts of society involved in and affected by a water decision be arranged? What are the different ideological backdrops against which actors are basing their decisions?**

### Entry Points for the Discussion

#### Stakeholders and societal negotiation processes

Who shall formulate the agenda? What is the role of different stakeholders? Are they supposed to cover their own limited group interests or should each stakeholder at the same time be regarded as responsible in relation to society as a whole?

#### Institutional sustainability

Different circumstances and situations require different institutional solutions. What kind of arenas and institutional arrangements will facilitate constructive dialogue? Can barriers be identified that systematically hinder dialogue?

#### Mechanisms for sound transboundary water management

Transboundary water politics is an area receiving strong attention from the international community. The World Bank is

investing heavily in the Nile Basin Initiative (NBI) and other development partners are seeking ways to promote co-operation over shared watercourses. How can increased sustainability and equity be achieved in this area? Does international law have a role to play? Is there a need for increased “third-party” involvement?



Photo: Mats Lannerstad

Wednesday  
August 24

## Programme

FH/Hall C

**CHAIR:** *Mr. Emilio Gabbrielli*, Global Water Partnership

**CO-CHAIR:** *Mr. Gourisankar Ghosh*, Water Supply and Sanitation Collaborative Council

**RAPPORTEUR:** *Mr. Felix Dodds*, Stakeholder Forum, UK

**CO-RAPPORTEUR:** *Prof. Peter Söderbaum*, Mälardalen University, Sweden

### POLITICS OF TRANSBOUNDARY WATER RELATIONSHIPS

13:30 Introduction Day 2

13:40 Transboundary Governance and Politics.

*Ms. Margaret Catley-Carlson*, Global Water Partnership\*

14:00 Intra-State Conflict Resolution Between Local Communities and Central Governments – Namibian Cases.

*Ms. Maria Amakali*, Namibia

14:15 Water Resources Management in the Tigris-Euphrates River Basin: Evolving Discourses and Practices. *Dr. Aysegul Kibaroglu*, Turkey

14:30 Coffee Break

15:00 Negotiating the Ganges Water: Theory, Practice and Way Forward. *Prof. Dr. Islam Faisal*, Bangladesh

15:15 Institutional Power: Decision Making on Large-Scale Hydropower Development and Water Resources Management in China. *Mr. Darrin Magee*, USA

15:30 Mediation of the Civil Society as a Way Out of the Imbroglia in Cooperative Water Management in the Ganges-Brahmaputra-Meghna Basin. *Prof. Jayanta Bandyopadhyay*, India

15:45 **Final Discussion** – Challenges and Opportunities

17:00 End of Workshop Session

\* Indicates invited speaker

Workshop 7

# Approaches To Mitigate Land Degradation and Gully Erosion

Convenor: Stockholm International Water Institute

Co-convenor: Stockholm Environment Institute

**Water-induced land degradation is mostly related to physical processes involving erosion and sediment transport. These problems frequently appear in combination with bio-chemical pollution and other similar forms of soil and water degradation. The primary causes maybe an effect of natural climatic phenomena for instance as a consequence of unpredicted strong climatic variability or, unfortunately, also due to human mismanagement in a variety of forms or a combination of both causes.**

### Entry Points for the Discussion

#### Analysis of processes and impacts

How should we develop a diagnostic capacity to understand the complex processes involving interaction between natural and anthropogenic activities related to land and water degradation in the landscape?

#### Management strategies

Management strategies have to focus on a variety of sector interests for stable physical infrastructure performance, securing food production, ecosystem preservation and also for fulfilling cultural needs. How should par-

ticipatory processes be developed to actively involve those who are suffering from land degradation problems? What is the framework for a management strategy that will engage all concerned in the problem resolution?

#### Institutional implications

Effective management of particularly agricultural and physical infrastructure systems are complicated and sometimes very costly for society. How can the institutional and political dimensions in this context promote positive development in management of land and water resources?

#### Systems approach

It is essential to realise that local measures in the landscape generally have quite widespread effects. This is typical for a watershed where activities in the drainage system have a direct impact downstream and sometimes also upstream. How is an adequate systems approach developed and applied in problem analysis and problem mitigation? In what way can the management strategy be widened to include all the relevant physical, environmental, economic and human resource components?

## Programme

FH/Room 307

**CHAIR:** *Dr. Johan Rockström*, Stockholm Environment Institute, Sweden

**CO-CHAIR:** *Prof. Boniface Egboka*, Nnamdi Azikiwe University, Nigeria

**RAPPORTEUR:** *Dr. Line Gordon*, International Water Management Institute, Sri Lanka

**CO-RAPPORTEUR:** *Prof. Klas Cederwall*, The Royal Institute of Technology, Sweden

#### BLOCK 1:

##### 09:00 Introduction

09:10 *Mr. Col. Bala Mande (Rtd.)*, Minister of Environment, Nigeria\*

09:30 Sediment Yield and Catchment Scale Erosion in the Ebro Basin from Holocene Valley Incision and Sedimentation in Roman and Present-Day Reservoirs. *Mr. C. Silva Aguilera*, Venezuela

10:00 Erosion Control and a Sustainable Environment: Scaling Up Livelihood Approaches in Ebo Itu Mbonusu. *Mr. Uwem Otu*, Nigeria

10:15 Property Tax Credits As A Tool For Watershed Management. *Mr. Michael Kinney*, USA

10:30 Coffee Break

#### BLOCK 2:

11:00 Managing Landscapes for Livelihoods. *Dr. Deborah Bossio*, International Water Management Institute, Sri Lanka\*

11:20 Effectiveness of Intervention Measures Applied in Mitigating Severe Soil/Gully Erosion in Tropical Areas of Nigeria and the Atlantic Coastline. *Dr. Luke O. Anike*, Nnamdi Azikiwe University, Nigeria

11:40 Integrated Approach for Land and Water Resources Management Using Remote Sensing and GIS. *Ms. Vuppala Padmaja*, India

12:00 Lunch

#### BLOCK 3:

13:30 Water Harvesting, Land Rehabilitation and Poverty Reduction in the Sahel. *Dr. Chris Reij*, Free University of Amsterdam, The Netherlands\*

#### 14:00 PANEL DISCUSSION WITH INTRODUCTORY STATEMENTS:

- Mitigation Factors for Ecological Disasters of Gully Erosion and Landslides in Southeast Nigeria: The Role of the National Assembly in Governance. *Mr. Ike Ekwerehadu*, Nigeria
- Costs and Benefits of Land Degrading Activities Versus Sustainable Land (and Water) Management, SLM. *Dr. Gunilla Björklund*, Sweden
- Soil Erosion, and Its Impact on Agricultural Land Use Systems: A Case of Decertified Region. *Dr. R. Jaganathan*, India
- From Hill Slope to Landscape Scale – Soil Erosion and Reservoir Sedimentation in Burkina Faso. *Ms. Almut Brunner*, Germany

15:00 Coffee Break

#### BLOCK 4:

15:30 Final Discussion – Challenges and Opportunities

17:00 End of Workshop Session

\* Indicates invited speaker

# Water Quality Degradation by Hazardous Substances and the Cost of Non-Action

Convenor: Stockholm International Water Institute

Co-convenors: International Water Resources Association and Third World Centre for Water Management

The workshop will focus on deficiencies in the policies and practices concerning water quality issues in the industrial and agricultural sectors. It is very important that water quality issues are put firmly on the global political agenda in order to cope with the use, emissions, containment and treatment of hazardous substances in society. The precautionary principle should be the guide and the basis for policy formulation and implementation. The social and economic cost of non-action will be illuminated through relevant examples.

## Entry Points for the Discussion

During recent decades, the number and magnitude of human activities have increased exponentially. While these have had many positive impacts in improving human welfare, some of them have negative impacts on the environment and human health. There are many examples of serious mistakes and bad decisions from the past and still new mistakes are done due to a lack of effective policy and economically biased decisions in many sectors.

## Management of hazardous substances as part of the political and social agenda

What steps can be taken so that management of hazardous substances becomes an important component of the political and social agenda? What could be the process through which such steps and actions could be taken? Who should initiate and be responsible for driving that process?

## Identify the hazardous substances

Which are the most hazardous substances that are spread through water and thereby affecting human health and the environment? Do we have enough of knowledge to predict cause – effect relationships between the presence of hazardous substances in water, exposure and their impacts on the environment and human health? What are the likely future impacts, if effective actions are not taken to reverse the current trend in the emission and spread of hazardous substances?

## Cleaning up contaminated areas

How can the current situation be improved where surface and groundwater sources are already contaminated? What are the main constraints to clean up already contaminated areas: lack of money, inadequate management, absence of effective legal provisions, improper institutional structure and enforcement, high levels of corruption, etc.?



Photo: Mats Iannersted

## Programme

FH/Hall A

**CHAIR:** Mr. Patrick Murphy, European Commission

**CO-CHAIR:** Mr. Aly Shady, International Water Resources Association

**RAPPORTEUR:** Dr. Cecilia Tortajada, Third World Centre for Water Management, Mexico

**CO-RAPPORTEUR:** Prof. Saburo Matsui, Kyoto University, Japan

09:00 INTRODUCTION

09:10 Human Diseases Induced by Chemical Pollution: The Paris Appeal. Prof. Dominique Belpomme, International Declaration on Diseases Due to Chemical Pollution (ARTAC), France\*

09:35 REACH – the Proposed New EU System for Managing Hazardous Substances. Ms. Eva Sandberg, Environment DG, European Commission, Sweden\*

10:00 The Welfare Costs of Non-action with Toxic Pollutants in Water: An Economic Perspective. Prof. William K. Easter, Michigan State University, USA\*

10:25 Questions

10:30 Coffee Break

11:00 Groundwater Quality Degradation Due to Industrialization

– the Cost of Non-Action: A Case Study of Patancheru, India.

Dr. Thekkilakkattu Iype Eldho, India

11:15 Common Effluent Treatment Plants: Concept and India's Experience. Mr. Ajay Raghava, India

11:30 Wellhead Protection – Strategies for Drinking Water Wells. Mr. Vincent W. Uhl, USA

11:45 Managing Water Quality Risks from Already Existing Environmental Legacies of Hazardous Substances. Prof. Georgia Destouni, Sweden

12:00 Lunch

13:30 Disposal of Wastewater Effluent to Land: Fate of Heavy Metals and Nutrients. Dr. Saleh Al-Mogrin, Saudi Arabia

13:45 Is There a Real Danger of Radionuclide Contamination of Irrigated Soils and Crops of South of Ukraine by the Dnieper River Waters? Prof. Igor Gudkov, Ukraine

14:00 DISCUSSION:

Challenges of Hazardous Substances on Health and Environment and Opportunities to Cope with these.

15:00 Coffee and End of Workshop Session

\* Indicates invited speaker

# Seminars

## UN-Water

**Convenors: The 24 UN system entities that work on water issues and cooperate through 'UN-Water'**

Multiple international water fora have delivered passionate statements in the past asking the 24 UN-system entities dealing with water to coordinate their activities for better synergy and delivery. UN-Water, established in 2003, ensures coherence and coordination in activities related to water within the UN system and is working progressively towards involving non-UN partners in this endeavour. UN-Water has developed a substantive plan of work focusing initially on water scarcity, disaster risk reduction and sanitation access from a thematic perspective and on Africa from a geographical standpoint.

Seminar presentations will outline aspects of UN-Water's work on the international policy environment (CSD, MDG, etc.); the global monitoring and reporting on status and trends through the World Water Assessment Pro-

gramme and the Joint Monitoring Programme; and the International Decade Water for Life. A panel discussion, with audience participation, on ways to enhance involvement of non UN-actors and on the specific activities for the decade will round off the seminar.

### Programme

**FH/Hall C**

- 09:00 Opening Address. *H.E. Maria Mutagamba*, Chair, AMCOW
- BACKGROUND AND ORGANISATIONAL ISSUES**
- 09:15 UN-Water: An Attempt at Coordination and Transparency. *Dr. Avinash Tyagi*, WMO
- 09:35 Action on the Ground: UN Country Level Action on Water Issues. *Mr. Carlos Linares*, UNDP
- 09:55 Questions and Answers
- SAMPLE OUTPUTS – MONITORING AND REPORTING**
- 10:15 The World Water Assessment Programme and the World Water Development Report. *Dr. Gordon Young*, WWAP
- 10:45 Joint Monitoring Programme. *Ms. Vanessa Tobin*, UNESCO
- 11:05 Q & A, Round Table on to Get Involved in UN Water Activities
- 12:30 End of Seminar

## The 2005 Founders Seminar: Business, Water and Development

**Convenors: Stockholm Water Foundation and World Business Council for Sustainable Development**

The Founders Seminar is presented annually in honour of the Stockholm Water Prize Laureate. Founders of the Stockholm Water Prize are Swedish and international companies in co-operation with the City of Stockholm.

They are: Anglian Water, Bacardi, DuPont, Europeiska Insurance, Fujitsu Siemens Computers, General Motors,

Grundfos Management, Hewlett Packard, Hilton and Scandic, ITT Flygt, Kaupthing Bank Sverige, Kemira Kemwater, KPMG Sweden, P&G, Ragn-Sells, Scandinavian Airlines (SAS), Snecma, Stockholm Water Festival, Swedish Railways (SJ), Uponor Group and Water Environment Federation.

### Programme

- MODERATOR:** *Mr. Nik Gowing*, BBC World
- 14:00 Welcome and Introduction. *Mr. Stig Larsson*, Chairman, Stockholm Water Foundation and *Mr. Ulf Ehlin*, Scientific Director, Stockholm International Water Institute
- 14:10 The 2005 Stockholm Water Prize Laureate. Centre for Science and Environment, India, its Goals and Achievements. *Ms. Sunita Narain*, Director.
  - The Importance for India of the CSE Work. *H.E. Deepa Gopalan Wadhwa*, Ambassador.
  - The 2005 Stockholm Industry Water Award Laureate PuR, Purifier of Water. *Dr. Gregory S. Allgood*, Director, Children's Safe Drinking Water, Procter & Gamble.
  - Safe Water – Saves Lives – Rapid Water Treatment in Emergencies. *Mr. Robert Fraser*, Senior Officer, International Federation of Red Cross & Red Crescent Societies.
  - Discussion with participation of the speakers, former Stockholm Water Prize Laureates, and the audience.
- 15:10 Coffee.

### NL/Music Room, by invitation

- 15:30 Panel Discussion: Sustainable Livelihoods (SL) Business – An Opportunity for the Private Sector.
  - Introduction: *Mr. Per Bertilsson*, Project Director, Stockholm International Water Institute.
  - The Potential Market for Sustainable Livelihoods Business. *Mr. Björn Stigson*, President, World Business Council for Sustainable Development.
  - The Millennium Development Goals and ITT Industries Products, Activities and Engagements. *Mr. Robert L. Ayers*, Senior Vice President, ITT Industries and President, Fluid Technology.
  - Examples of Sustainable Livelihoods Business in the Activities of Suez. *Mr. Alain Mathys*, Managing Director, Water for All Programme, Suez.
  - The Experience of "Agua para Todos" – Water for All, Bolivia. *Mr. Gustavo Heredia*, Director, Agua Tuya, Bolivia.
  - Discussion with the participation of the speakers and the audience.
- 16:45 End of Seminar





## Workshop 3

- Spatial Variation in Water Supply and Demand across River Basins of India. *Mr. Noel Aloysius, USA*
- Coping with and Ensuring Water Security in Tamilnadu, India through Eco-system based Integrated Watershed development. *Mr. Arumugam Gurunathan, India*
- Application of Dynamic System for Sustainable Urban Water Supply: A Case Study in Hanoi City. *Dr. Nga Tran Thi Viet, Japan*
- Introducing Agency into Water Resource Simulation Models. *Dr. David Purkey, USA*
- The GLOWA Volta Project: A Framework for Water Resources Decision-Making in a Transnational West African Basin. *Dr. Charles Rodgers, Germany*
- Sustainable Water Management in Colombia. *Mr. Adam John Rankin, Colombia*
- The Water Demand Management Challenge – National Water Master Planning in Jordan. *Ms. Suzan Taba, Jordan*

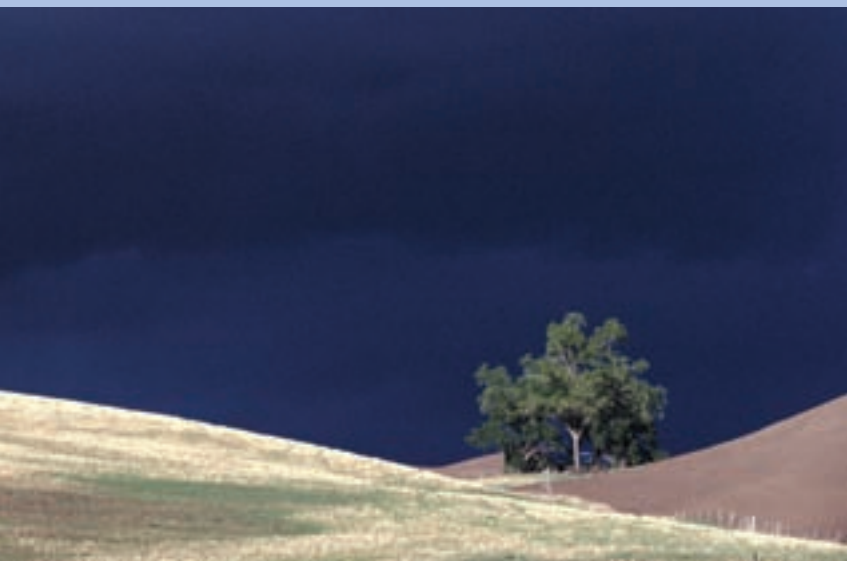
## Workshop 6

- Water Management in the 21st Century: Institutional and Participatory Challenges to Successful Water Governance. *Prof. Geoffrey D. Gooch, Sweden*
- Cause of Water Conflict and Social Negotiation Processes for Effective Water Policy – A Case in Kangwon Province, South Korea. *Prof. Dr. Joongdae Choi, South Korea*
- Sustainable integrated water resources management in the Cuvelai-Etoshia Basin in northern Namibia. *Mr. Abraham Nehemia, Namibia*
- Water and Politics: Bangladesh Perspective. *Mr. Chowdhury Mohommod Farouque, Bangladesh*
- The linkages between poverty, environment and transboundary water management in southwest China's Yunnan Province. *Ms. Katri Makkonen, Finland*
- Participatory Approach To Management Of Water Resources- The Katepurna Experience. *Dr. Sanjay Belsare, India*
- Politics of Water: Lessons from hard and soft Solutions in Kandara and Ngabuya Water projects, Kenya. *Dr. Abraham Ndungu, Kenya*
- Grassroot Participation and Management for Rural Water-Related Environmental Problems in Akwa Ibom State. *Mr. John Paul Robert, Nigeria*
- Concordance of Various Order Preferences under Decision-Making and Water Management. *Prof. Vladimir Tarrasevitch, Russia*
- Understanding the Relationship between Government and Governance for Effective Implementation of Water Policy. *Ms. Hanlie Hattingh, South Africa*
- The Role of Science and Technology in Strengthening

- Good Environmental Governance. *Dr. Joy Leaner, South Africa*
- Access to Water as a Human Right. *Prof. Juan Miguel Picodotti, Argentina*
- Finalising The Project: Development of The Pungue River Basin Joint Integrated Water Resources Management Strategy. *Dr. Rikard Lidén, Sweden*
- The Need for a Political Approach to Analyzing the Management of Water Services. *Prof. Meine Pieter Van Dijk, The Netherlands*
- Benefit Sharing and Stakeholder Participation: Challenges for the Nile Basin Initiative. *Dr. Alan Nicol, United Kingdom*
- Impacts of global mega-conferences on water. *Ms. Andrea Lucia Biswas-Tortajada, Canada*
- Improved access to water: an enemy in disguise? *Mr. Carl Christiansson/Mr. P. Klintonberg*
- The Conflict vs. Cooperation Paradox: Fighting Over or Sharing Of Palestinian-Israeli Groundwater? *Mr. Mark Zeitoun, U.K.*
- The lifeline of a river: water, landscape, people and development options: Power point presentation from Okavango river basin. *Dr. John Mendelsohn and Dr Selma el Obeid, Namibia*
- Political and Social Issues Relating to Transboundary Water Management in South Asia? *Mr. Gopal Siwakoti.*

## Workshop 7

- On the question of salt management of the Amudariya river delta (Aral Sea basin, Karakalpakstan). *Dr. Izzet Aimbetov, Uzbekistan*
- Urban and Agriculture Impact on Soil in Australia. *Mr. Barry Lewis, Australia*
- Western Kamchatka: Economical Activity and Seacoast Erosion. *Mr. Andrey Bykasov, Russia*
- Changing shoreline due to Coastal Erosion, Accretion and saline water intrusion due to the construction of Madras Harbour. *Dr. T.V. Gopalakrishnan, India*
- Erosion-Related Environmental Problems in Nigeria: Analysis of the Problems, Consequences and Remedial Options. *Dr. Bernard Akudinobi, Nigeria*
- Approaches To Soil/Gully Erosion Mitigation: Creation Of Public Awareness Measures In Anambra State, Nigeria. *Mr. Paschal Anyaegbunam, Nigeria*
- Erosion, Gullies and Landslides in Anambra State, Nigeria; A Case Study. *Mr. Ephraim Enekeuchi, Nigeria*
- Study of Landslides Using Multitemporal Remotely Sensed Data and Field Observations: a Case of Reservoirs Created on the Basis of the Volga River Valley. *Dr. Leontina Sukhacheva, Russia*



**Workshop 8**

- Water Quality Aspects of Agricultural Developments in Bangladesh. *Prof. M. Habibur Rahman*, Bangladesh
- Hydroecological situation assessment in Southern Aral Sea Region, Central Asia according to last 15 years ecotoxicological data. *Prof. Bakhtiyor Karimov*, Uzbekistan
- Causes and consequences of water quality degradation in the upper Kafue river, the Copper belt Province, Zambia. *Dr. Håkan Tarras-Wahlberg*, Sweden
- Water Quality Degradation caused by agricultural practice: case study from Ukraine. *Prof. Valentina Pidlisnyuk*, Ukraine
- Water pollution with pesticides in Africa. *Dr. Cecilia Öman*, Sweden, *Yvonne Bonzi-Coulibally*, Sweden
- Small-scale Mining in the Pungwe River – A threat to sustainable water Management and Development in the Bi-national River Basin. *Mr. Olof Persson*, Sweden
- Irrigated agriculture and the formation of high fluoride groundwaters in India. *Prof. Gunnar Jacks*, Finland

**Side Events**

**Launching Ceremony of the Book**

FH/Room 300, 12:30–13:15

**“Climate Change and Water Resources in South Asia”**

**Convenor: Environment Canada and University of Toronto**

This book has been edited by Dr Monirul Mirza, Adaptation and Impacts Research Group (AIRG), Environment Canada and Dr Q.K. Ahmad, Chairman, Bangladesh Unnayan Parishad. A.A. Balkema (Taylor & Francis, U.K) published the book. It addresses the most press-

ing water resources issues in South Asia, particularly in relation to climate change and variability. Experts from South Asia and Canada and government representatives will address the ceremony.



Photo: Mats Lamerstad

## Side Events

### Large Scale Environmental Observatories in the United States

FH/Room 307, 12:15–13:00

**Convenor: Watershed Media Project**

Large, drainage-basin scale Environmental Observatories are filling a critical research need. Hydrologists, geologists, chemists, biologists, economists, social scientists, mathematicians, and many other scientists and engineers, are beginning to study environmental phenomena in significantly large areas throughout a long enough time period to get truly meaningful integrated data about drainage basins.

This short DVD explains what such an observatory is; how data that is generated will be developed, integrated, and used by researchers and; it suggests some of the po-

tential information and benefits for decision-makers to be gained from basin scale Environmental Observatories.

Graphic illustrations and animations examine water's flow over, on, and under the landscape. And on the DVD we meet many of the scientists and engineers who are defining the research parameters and physical area of these Environmental Observatories and see their preliminary research. It also presents the lay person with a glimpse of the depth and breadth of information that can be gathered, analyzed, and understood about water and its drainage basin.

FH/Hall B, 13:30–17:00

### The Children's Water Way

**Convenor: Children of Globetree, Lake Victoria Region Local Authorities Cooperation and Union of the Baltic Cities**

Children and young persons from the Lake Victoria and Baltic Sea regions bring their Water Landscapes and questions. They look forward to discuss their worries, hopes and ideas with you, the water professionals of the world! Children's Dialogue with mayors takes place under a tree close to the City Hall in 7 cities in the Lake Victoria Region and 5 cities in the Baltic Sea Region. The World Championship in Cooperation – the first of it's kind! – will be hosted by the City of Stockholm 2006 and the City of Kampala 2008. Water is at the heart of the World Championship in Cooperation.

FH/Room 307, 17:15–19:00

### Innovations in Service Delivery to the Poor

**Convenor: Water Supply and Sanitation for the Urban Poor (WSUP)**

Water Supply and Sanitation for the Urban Poor (WSUP) is an innovative partnership of businesses and non-governmental organisations providing capacity building and service delivery, with local partners, to the poorest communities in urban and peri-urban areas. Join Ravi Narayanan of WaterAid and Richard Aylard of Thames Water describing progress and answering questions.



Photo: Frida Lanshammar

## Side Events



### Launch of the Initiative on the Economics of Water: Towards Sustainability

FH/Room 203, 17:15–19:00

**Convenors:** Stockholm Environment Institute

**Co-convenors:** The World Conservation Union (IUCN), International Development Enterprises, World Health Organization, Harvard University, International Food Policy Research Institute (IFPRI)

This session will propose the launch of a new international policy and research initiative on the economics of water in a sustainability framework. There is a need for an understanding of the contribution of water to economic growth and poverty reduction, so that political rhetoric is translated into national development decisions. The goal is to turn the focus of discussion on the economics of water away from a concern over ‘cost recovery’ and towards an ‘engine of growth’ one. Attention will be paid to two distinct levels:

- The national level: what contribution does water management make to GNP, how can water be promoted in national development strategies and what is

the potential of investments in water as a catalyst for regional development?

- The local level: what role does water play in the livelihoods of the poor, what is the potential for stimulating investments by small local entrepreneurs and how can we generate pro-poor economic development?

This session will present an initial framework of valuing all aspects of water and consider how these values relate to local and macro-economic development. Examples will demonstrate how this approach could transform the way water is understood, managed and allocated.

### Political Aspects of the New Swedish Water Management System

FH/Room 300, 17:15–19:00

**Convenors:** Council for the Stockholm-Mälars Region, Stockholm Office of Regional Planning and Urban Transportation (RTK), Stockholm County Administrative Board and Stockholm Water Company

This side event on the new Swedish water management system provides a dialogue opportunity for international participants to familiarise themselves with how water and river basin issues are dealt with politically in Sweden. The new European Water Framework Directive promotes an integrated water management approach to be implemented in Member States in order to achieve good ecological and chemical freshwater quality by 2015. A key dimension in the implementation is how the new Swedish water management system should be connected to the political level.



Photo: SWI

Photo: SB

# Award Ceremony

## Stockholm Industry Water Award

Wednesday, August 24, Lunch (Invitation)

**The Stockholm Industry Water Award was established by the Stockholm Water Foundation in co-operation with the Royal Swedish Academy of Engineering Sciences and the World Business Council for Sustainable Development to stimulate business sector contributions to sustainable development.**

The award recognises innovative corporate development of water and wastewater process technologies, contributions to environmental enhancement through improved performance in production processes, new products and other significant contributions by businesses and industries to better the world water situation.

The Award Ceremony for the Stockholm Industry Water Award will be followed by the Founders Luncheon and the Founder Seminar (see also page 32) Previous winners of the award have shown that business and the environment can go hand in hand, and the Award Ceremony will provide yet another opportunity to highlight positive contributions by business and industry in building sustainable water resources.

The Procter & Gamble Company, USA, has been awarded the 2005 Stockholm Industry Water Award in recognition of its development of the PuR – Purifier of Water drinking water treatment system for households not served by a potable water supply system, or for use in disaster relief.

A Purifier sample is provided in your delegate bag.

Photo: SIWI



## Social Activity

Wednesday, August 24, 19:30–23:00

### Dinner and Dance

**The 2005 World Water Week Dinner near the water**

In recent years, the World Water Week Dinner has become a favourite of participants due to the fine food, pleasant environment, live music and good company. This year, the venue will be very close to the water, offering unparalleled views of the City on Water! Join your friends and colleagues from around the world for a memorable, festive evening!

**Price: 550 SEK**

**Transportation by boat with refreshments served on board.**

Photo: SIWI



## Seminars

# AMIWASH – African Ministers Coming Together to Meet the MDGs

**Convenors: Water Supply and Sanitation Collaborative Council and The Water and Sanitation Program**

With only 36% of its population having access to basic sanitation and some 288 million people lacking access to safe drinking water, Africa faces the most daunting challenges in their efforts to reach the UN Millennium Development Goals (MDGs) on water and sanitation.

Among the new initiatives aimed at speeding up action and mobilizing political commitment is the “African Ministers Initiative for WASH (AMIWASH)”. Led by a number of African Ministers in partnership with the WSSCC and WSP-Africa, the initiative aims to position WASH issues higher on the sustainable development agenda and enhance collaboration within the continent to achieve the MDGs where it matters most, at country level. This dialogue will present the initiative and discuss the way forward for Africa in its pursuit of these goals.

### Programme

**FH/Hall A**

- 09:00 Introductory Remarks. *Dr. Roberto Lenton*, WSSCC Chair, Colombia University, USA
- 09:10 AMIWASH – Objectives, Plans and Activities. *Hon. Maria Mutagamba*, Minister of State for Water, Uganda and Chair of the African Ministers Council on Water (AMCOW)
- 09:30 The Ethiopian Experience: A Success Story. *Hon. Mr. Shiferaw Jarso*, Minister for Water Resource Development, Ethiopia
- 09:50 Innovations in Senegal. *Hon. Dr. Issa Mbaye Samb*, Minister of Prevention, Public Hygiene and Sanitation, Senegal
- 10:10 Africa’s Prospects for the MDGs: South Africa Leads the Way. *Hon. Ms. Buyelwa Sonjica*, Minister of Water Affairs and Forestry, South Africa
- 10:30 Civil Society: A Lesson in Partnerships. *Ms. Beth Karanja*, Deputy Director, Programme Manager for Training, NET-WAS- Kenya
- 10:50 Discussion
- 12:20 Summary and Conclusions. *Mr. Piers Cross*, Team Leader, WSP-Africa

# Marketing Sanitation and Hygiene – How Do We Sell Toilets Like Toothpaste?

**Convenors: as above**

Sanitation is no longer a “dirty” word but seemingly, it is still a long leap to marketing billboards and profitable business. How do we “sell” toilets and safe hygiene behaviour to people? Social marketing is the use of commercial marketing methodology to achieve social behavioural change. It has been praised by some and considered the “devil’s work” by others. The seminar discusses how marketing tools can be used to understand the market and customers of sanitation and to successfully create demand, increase latrine coverage and promote safe hygiene behaviour. What can we learn from the experiences of other sectors on how to create demand and change behaviour, and what role can local entrepreneurs play?

### Programme

**FH/Hall A**

- 13:30 Welcome and Introduction of Speakers by the Moderator. *Ms. Vanessa Tobin*, Chief of Water, Environment and Sanitation, UNICEF
- 13:40 Social Marketing – What Is It and How Can We Use it? *Mr. Gerson Da Cunha*, Programme Communications Specialist, India
- 14:00 The Market Approach – What Can We Learn From Breastfeeding Campaigns and Mosquito Nets? *Mr. Camille Saade*, PPP Coordinator, Hygiene Improvement Project (HIP), USAID/AED
- 14:20 Social Marketing and Local Entrepreneurs. *Mr. Jaime Frias*, Country Director – Vietnam, International Development Enterprises (IDE)
- 14:40 Challenges and Lessons Learned from the Dar es Salaam Sanitation Marketing Programme. *Mr. Steven Sugden*, Research Fellow- Excreta Disposal, London School of Tropical Medicine and Hygiene (LSTMH)
- 15:00 Strategies for Rolling Out Sanitation Marketing in Africa. *Mr. Piers Cross*, Team Leader – Water and Sanitation Programme – Africa (WSP)
- 15:20 Discussion
- 16:20 Summary and Conclusions. *Ms. Vanessa Tobin*
- 17:00 End of Seminar



Photo: WSSCC



## Hydraulic Infrastructure as a Platform for Economic Growth: The Experience of the Developed World and the Challenges for the Developing World

**Convenors: Stockholm International Water Institute, Swedish International Development Cooperation Agency, World Bank and World Water Council**

During the 20th Century, countries of the developed world made large investments in hydraulic works (dams, canals, dykes, locks and the like) to provide their increasing population with food through irrigation, energy through hydropower and transport through navigation, and to protect them from floods. Today the development of many poor countries is hampered because of the lack of such infrastructure. The seminar will examine the sit-

uation today in both developed and developing countries and focus in particular on options for long term development in the developing world (hard and soft solutions alike). A case study in the afternoon will explore the multi-purpose development of the Kagera River Basin, which is shared by Burundi, Rwanda, Tanzania, and Uganda, and the ongoing preparation of the Regional Rusumo Falls Hydroelectric Power Project (RRFP).

### Programme

### FH/Room 307

**CHAIR:** *Mr. Alessandro Palmieri*, Lead Dam Specialist, World Bank

09:00 Opening

- Opening Remarks. *Mr. Anders Berntell*, Executive Director, Stockholm International Water Institute

09:10 Introductory Remarks by Co-Convenors

- *Prof. Ben Braga*, Director, National Water Agency (ANA), Brazil
- *Dr. John Briscoe*, Senior Water Adviser, World Bank
- *Mr. Göran Haag*, Senior Energy Adviser, Sida

09:30 *Ms. Meng Zhimin*, Deputy Director-General, Ministry of Water Resources of P.R. China

09:45 *H.E. Mr. Suresh Prabhu*, Member of Parliament of India

10:00 Discussion

10:20 Coffee Break

10:45 *Prof. Dogan Altinbilek*, President of IHA and former Director-General DHA Turkey

- *Prof. Ben Braga*, Director, National Water Agency (ANA), Brazil
- *Mr. Steve Stockton*, Deputy Director for Civil Works of the US Corps of Engineers
- *Ms. Lucy Emerton*, Co-ordinator of IUCN Programme in Asia, IUCN
- Discussion
- Reflections on the Morning Session. *Dr. John Briscoe*

12:15 Lunch Break

13:30 **Case Study on the Multi-Purpose Development of the Kagera River Basin and the Regional Kagera Hydroelectric Project (RRFP)**

Panel Discussions with the Following Invited Participants (tbc)

- *H.E. Albert Butare*, Minister of Energy and Communications, Rwanda
- *H.E. Prof. Bikoro Munyangizi*, Minister of State in Charge of Water and Natural Resources, Ministry of Lands, Environment, Forestry, Water and Natural Resources, Rwanda
- *H.E. Martha Karua*, Minister of Water Resources Management and Development, Kenya
- *H.E. Maria Mutagamba*, Minister of State for Water, Uganda (tbc)
- *H.E. Daniel N. Yona*, Minister of Energy and Minerals
- *H.E. Anthony Diallo*, Deputy Minister, Ministry of Water and Livestock Development, Tanzania
- *Mr. Washington Mutayobwa*, Ministry of Water and Livestock Development, Tanzania

**Nile Equatorial Lakes Subsidiary Action Program Coordination Unit (NELSAP-CU): The broader Multi-Purpose Framework and Pre-Investment Project on the Kagera and its Links to the RRFP**

- *Mr. Antoine Mulashi Sendama*, Regional Coordinator, NELSAP CU, Rwanda
- *Mr. Desire Florent Nzayanga*, Program Officer Power Projects, NELSAP CU, Rwanda
- Discussion and Identification of Key Challenges to Develop the Kagera Basin and the RRFP
- Reflections on the Afternoon Session. *Mr. Jakob Granit*, Senior Water Resources Specialist, World Bank

15:15 Conclusions and Closure. *Prof. Ben Braga*, Vice-President, World Water Council

15:30 End of Seminar

# Transboundary Water Governance as a Manifestation of a Trialogue

Convenors: Expert Group on Development Issues (EGDI) at the Swedish Ministry for Foreign Affairs, Swedish Water House, UNESCO and Universities Partnership for Transboundary Waters



Photo: SB

Governance is a key element of water management. Policy making and management of transboundary water resources is particularly challenging. Moving downstream, water passes many interest groups and political and legal constituencies, rich and poor, and even different climatic zones. While management of surface water resources is an obvious issue, there is increasing awareness that groundwater resources must be an integral component in transboundary water management.

The relationship between government, society and the economy is a “trialogue.” The interaction between water, land and society forms another complex. Nationally, these relationships and interactions are difficult enough; transboundary contexts compound the complexity. There is a need for an elaboration and harmonisation of the institutional and legal arrangements to properly utilise the basin resources and to share benefits. A strengthening of the mutual trust between the riparian partners is a *sine qua non* for good transboundary water governance.

## Programme

## NL/Room 456

- 09:00 Official Opening. *Mr. Anders Oljelund*, Deputy Director General for International Development Co-operation, Swedish Ministry of Foreign Affairs, Sweden
- 09:10 Organisation and Purpose of the Seminar. *Dr. Alice Aureli*, UNESCO and *Prof. Jan Lundqvist*, Linköping University, Sweden

### SESSION 1: VALUES OF WATER

- CHAIR: *Prof. Pieter van der Zaag*, WaterNet, Zimbabwe
- RAPPORTEUR: *Mr. Bo Libert*, UN Economic Commission for Europe, Switzerland
- 09:30 Main Issues. *Dr. Alan Nicol*, Overseas Development Institute, UK
- 09:45 Regional Response. *Dr. Emmanuel Manzungu*, University of Zimbabwe
- 10:00 Regional Response. *Dr. Fadia Murad Diabes*, International Water Law Research Institute, University of Dundee, UK
- 10:15 Coffee Break
- 10:30 Facilitated Dialogue

### SESSION 2: LEGAL AND INSTITUTIONAL ASPECTS

- CHAIR: *Director Marilyn O’Leary*, University of New Mexico School of Law, USA
- RAPPORTEUR: *Mr. Anton Earle*, African Water Issues Research Unit, South Africa
- 11:00 Main Issues. *Dr. Patricia Wouters*, Director, International Water Law Research Institute, University of Dundee, UK

- 11:15 Regional Response. *Mr. Komar Khoun*, Mekong River Commission, Lao PDR
- 11:30 Regional Response. *Dr. Ofelia Tujehneider*, Universidad Nacional del Litoral, Argentina
- 11:45 Facilitated Dialogue
- SESSION 3: POLITICS OF WATER
- CHAIR: *Prof. Geoffrey Gooch*, Linköping University, Sweden
- RAPPORTEUR: *Dr. Anders Jägerskog*, Expert Group on Development Issues, Sweden
- 12:15 Main Issues. *Dr. Anthony Turton*, Universities Partnership for Transboundary Waters
- 12:30 Regional Response. *Dr. Alexander Lopez*, Mesoamerican Center for Sustainable Development of the Dry Tropics, Costa Rica
- 12:45 Regional Response. *Mr. Shammy Puri*, International Association of Hydrogeologists, UK
- 13:15 Facilitated Dialogue
- 13:45 Lunch
- SESSION 4: WHERE DO WE GO FROM HERE?
- CHAIR/FACILITATOR: *Dr. Alice Aureli*, *Prof. Jan Lundqvist* and *Dr. Anders Jägerskog*
- 14:30 Introduction: Comment about Role of Science. *Prof. Michael Campana*, University of New Mexico, USA
- 14:35 Discussion Aiming at Identifying What to Do Next, By Whom, Collaboration, etc.
- 15:00 End of Seminar





Photo: USAID

## Shared Water Problems in the Middle East: Water for Agriculture

Convenors: Global Water Partnership-Med., Israel/Palestine Center for Research and Information, Stockholm International Water Institute, Swedish Ministry for Foreign Affairs and Swedish Water House

The availability of water resources to secure sufficient food production for growing populations is one of the biggest challenges faced by water and agricultural managers. Most parts of the Middle East are already facing severe water scarcity and stress, and this makes future prospects for food security bleak.

The purpose of the working session and ensuing seminar is to address common challenges on water for agriculture and identify entry-points to enhanced collaborations in the Middle East. Since much of the water in the region is shared, discussions will be held on how to manage these in the best way possible. The extent to which treated wastewater, the so-called grey water, can be used in agriculture, questions relating to the pricing of water for farmers, and the role of "virtual water" are all likely to be raised.

Shared water is seen as a window of opportunity for increased co-operation in the region and agricultural policies in the region should take full account of the way in which water is used.

**The Seminar on Thursday will contain key presentations and discussions on the topic, which will incorporate major findings from the Sunday working session.**

### Programme

FH/Hall B

- 09:00 Introductory Session
    - Joint Chairmen – *Mr. Robin Twite*, IPCRI and *Dr. Radwan Al-Weshah*, UNESCO
    - Welcome Address: *Dr. Håkan Tropp*, Swedish Water House/SIWI
  - 09:10 Presentations and Discussions from Workshops on:
    - Water, Agriculture and Food Security: What does the Future hold?
    - Optimizing the Use of Water in Agriculture: New Institutions and Technologies?
    - Long-term Cooperation: What are the Alternatives?
  - 10:15 Remarks by *Ms. Carin Jämtin*, Minister for Development Cooperation, Sweden
  - 10:45 Coffee Break
  - 11:00 Presentations and Discussions: Water and Agriculture in the Middle East
    - This segment of the seminar contains presentations by renowned experts from the Middle East region and discussions on topics related to food security, optimizing the use of water and long-term cooperation. Speakers are to be confirmed.
  - 12:30 Lunch
  - 13:30 Keynote Address and Response to Challenges in the Region: Beyond the Watershed in the Middle East: Underlying Fundamentals, Old Expectations, and the Politics of Denial. *Prof. Tony Alan*, SOAS, UK
  - 14:15 Final Session
  - 15:00 Close
- Moderated by *Mr. Bo Kjellén* and *Mr. Robin Twite*

## From the Millennium Summit to 2015: Why Managing Water Resources and Expanding Water Supply and Sanitation Services is Vital to Meeting the Millennium Development Goals – and What Needs to be Done

**Convenors: Stockholm International Water Institute, Swedish Ministry for Foreign Affairs,  
Swedish Water House, UN Millennium Project**

The United Nations summit in September 2005, where the largest-ever gathering of heads-of-state will convene, offers a unique opportunity for agreeing on a practical plan of action to achieve the Millennium Development Goals. The Goals will not be met unless there is deliberate planning and investment in water infrastructure and sound water resources management and use; and a dramatically different approach to the worldwide sanitation crisis. This seminar will explore

how countries can develop such goal-oriented water and sanitation strategies as well as the many ways in which these sectoral strategies can spur progress toward all the MDGs, particular those on poverty, hunger, gender equality and environment. Speakers will include experts, practitioners, and government officials from the UN Millennium Project and its Task Forces on Hunger, Environmental Sustainability, Gender, and Water and Sanitation.

### Programme

**FH/Room 300**

**CHAIR:** *Mr. Anders Wijkman*, MP, European Parliament

09:00 Opening and Welcome. *Ms. Annika Söder*, State Secretary, Swedish Ministry for Foreign Affairs, Sweden

09:10 Introduction to the Seminar.

*Mr. Anders Wijkman*, European Parliament

09:20 How Do We Know We Meet the Targets?

*Dr. Hans Rosling*, Professor in International Health, Division of International Health, Karolinska Institutet, Sweden

#### SECTION 1. WATER AND THE MDGs

09:35 *Mr. Albert Wright*, Co-Coordinator, UN Millennium Project Task Force on Water and Sanitation

09:55 *Ms. Sunita Narain*, Executive Director, Centre for Science and Environment, India

10:15 Coffee

**SECTION 2. COUNTRY-LEVEL MDGs** – How Can Countries Integrate the MDGs in National Planning Processes (PRSPs, IWRM Plans, etc)

10:35 Ministry of Water Affairs and Forestry, South Africa (tbc)

10:55 *Mr. Alfred Langat*, Chief, Environmental Sanitation Unit, Ministry of Health, Kenya

**SECTION 3. LESSONS LEARNT** – Reaching the MDGs Through Local Action

11:15 *Mr. Gustavo Heredia*, Director of The AGUA TUYA Program (SEED AWARD WINNER 2004-2005)

**SECTION 4. MOVING FORWARD AFTER SEPTEMBER 2005**

11:40 *Mr. Guido Schmidt-Traub*, Policy Adviser, Millennium Development Project

11:55 Panel Discussion

12:20 End of Seminar



## 4th World Water Forum: Local Actions for a Global Challenge

**Convenors: Secretariat of the 4th World Water Forum  
and World Water Council**

Photo: SWI

With the 4th World Water Forum in March 2006 only a few months away, the Forum organizers are using the opportunity of the 2005 World Water Week to present the

latest progress towards the “Local Actions for a Global Challenge” theme of the Forum, particularly from the regional, thematic and ministerial viewpoints.

This seminar will also be the opportunity for the other seminar convenors at the World Water Week to present the specific results of their seminars, so as to use the World Water Week as a key stepping stone towards the Forum.

### Programme

**FH/Hall C**

09:00 Welcome and Introduction

09:10 Progress report on the organization of the 4th World Water Forum. *Mr. Cesar Herrera*, Secretary General of the 4th World Water Forum

09:45 Questions and Answers from the floor

10:00 Presentation of the Results of the Other Seminars from the World Water Week (overseen by representatives of each of the “beacons” and Regional Committees of the Forum)

11:00 Coffee Break

11:15 Presentation of the Results of the Other Seminars from the World Water Week (continued)

12:10 Wrap-up and Summary: Next Steps Towards the Forum

12:30 End of Seminar



# Bridging the Gap Between Decentralised and Centralised Water and Sanitation Systems and Services

Convenors: Stockholm International Water Institute, Swedish Environmental Research Institute, Chalmers, Varim, VERNA Ecology

How can Swedish Professionals Contribute in Urban and Peri-urban Areas in Developing Countries and in Countries under Transition?

This seminar is aimed at questions and issues related to small-scale and other conceivable solutions for water, wastewater and solid waste, not the least in relation to Eastern Europe, adjacent areas and in developing countries – particularly those with treatment needs in smaller cities and villages, and in poorer peri-urban areas surrounding larger cities. The seminar focuses on finding forms for co-operation where the local stakeholders and knowledge in these countries can create possibilities through collaboration with, among others, Swedish expertise. An important aspect will even be to discuss prioritised efforts where further development and new ways of thinking are necessary.

The idea is to invite key strategic participants from developing countries for consultation with representatives from industry and business, research and decision making in Sweden and other countries.

## Questions of Current Interest in Water and Wastewater Treatment

Convenors: Stockholm International Water Institute, Swedish Water and Wastewater Association, Swedish Royal Institute of Technology

This seminar concerns central and important questions for Swedish and other water and wastewater authorities and companies which need to find both short- and long-term solutions which promote development of environmentally friendly, technologically advanced and effective operations. The seminar is aimed mostly at representatives for water and wastewater facilities, practical research and companies in the field.

### Programme

NL/Room 453

MODERATOR: *Prof. Hans Lundberg*, Swedish Environmental Research Institute (IVL)

09:00 Introduction: *Prof. Hans Lundberg*

- Sustainable Water and Sanitation Development in an International Perspective – What is Sweden Doing Today? *Prof. Per-Arne Malmqvist*, Chalmers University of Technology
- How can Swedish Solutions be useful to Developing Countries and Countries under Transition? *MSc. Mats Johansson*, VERNA Ecology
- Strategic Questions and Case Studies
- Local Needs in Developing Countries, in Eastern Europe and Former Soviet Republics? (Speakers representing these areas)
- Experiences from Swedish Involvement in International Projects (case studies). *Mr. Lars-Ingvar Nilsson*, Läckby Purac
- Financing and Market Possibilities. (Speaker representing regional development banks and aid)
- Experiences from the Baltic States and Eastern Europe. *Mr. Leif Nilsson*, Malmberg Water

12:30 Discussion on the Way Forward : How can Swedish Professionals Contribute in Urban and Peri-urban Areas in Developing Countries and in Countries under Transition?

- Participants: from developing countries, Eastern Europe, Sweden and others

### Programme

NL/Room 357

MODERATOR: *Prof. Bengt Hultman*, Royal Institute of Technology (KTH), Stockholm

09:00 Membrane in Water and Wastewater Treatment: Latest News and Examples from Europe, Asia and USA.

*Dr. Peter Ohle*, Zenon, Germany

- Pharmaceuticals, Personal Care Products and Persistent Compounds in Wastewater – Future Threat? State of Art and Solutions. *Dr. Hansruedi Siegrist*, EAWAG, Switzerland
- Prescription of Drugs – the Precautionary System in the County Council of Stockholm. *Dr. Åke Wennmalm*, Environmental Director of the County Council of Stockholm
- Communications Between Water Companies and Customers. *Dr. Anders Finnson*, Stockholm Water Company

12:30 Research at the Royal Institute of Technology on Wastewater Treatment. *Dr. Elzbieta Plaza*, KTH

# Modelling the World of Water – Decision Support Tools for Water Resources Management

Convenor: DHI Water & Environment

Co-convenors: Institute of Water Resources Planning Vietnam; Institute of Water Modelling, Bangladesh and Water Management Authority Czech Republic

Photo: Dr. Katrin Teubner

Models are widely accepted as key management tools for water resources planning and management. Progress in understanding water resources has developed considerably in recent decades, particularly through advances in modelling. A wide range of models now exist – among them rainfall-runoff, aquifer, catchment and urban water management models – and many more are being developed.

Models also have an important role in linking policies and plans with implementation, and in providing a sound basis for decision making. The seminar will present examples of such use of models, with illustrations from urban water management and river basin management, and discuss further developments.

## Programme

FH/Room 300

- 13:30 Welcome Address
- 13:40 Keynote Presentation: Information Needs for Water Resources Planning and Management and the Role of Modelling Tools. *Prof. Torkil Jønbjerg-Clausen*, DHI, Denmark
- 14:10 **URBAN WATER MANAGEMENT**
  - Tools for Urban Water Infrastructure Management and Planning. *Dr. Evzen Zeman*, Hydroinform, Czech Republic
  - Urban Flooding – Risk Analysis and Warning Systems. *Mr. Sten Lindberg*, DHI, Denmark
- 14:40 **RIVER BASIN MANAGEMENT**
  - EU Water Framework Directive and the Challenges for Decision Support Tools. *Mr. Panos Antonaropoulos*, Z&A, Greece
  - Mathematical Modelling in Water Management, Example from

- Bangladesh. *Mr. Emaduddin Ahmad*, IWM, Bangladesh
- Models in Capacity Building for IWRM. *Dr. To Trung Nghia*, IWARP, Vietnam
- 15:30 Coffee Break
- 15:45 Modelling in Transboundary Water Management
  - Providing a Common Language for Transboundary Water Management. *Mr. George E. Radosovich*, RAD International
  - Mathematical Modelling for Consensus Building in the Lerma-Chapala Basin. *Mr. Alvaro Aldama*, Instituto Mexicano de Tecnología del Agua, Mexico
- 16:15 Panel Discussion  
The Role of Modelling for Water Resources Policy and Decision Making
- 17:00 End of Seminar

## Finance for Water Solutions: How Capital Markets, Banks, Insurers and Asset Managers Can Work for Water

Convenors: Stockholm International Water Institute, United Nations Environment Programme – Finance Initiative (UNEP-FI), World Economic Forum Water Initiative, World Business Council for Sustainable Development and DRM World Institute for Disaster Management

The aim of the seminar is to bring together the private sector and policy makers, setting a platform for dialogues to close the communication gaps that exist in terms of how to achieve more

private sector participation in the topic of water through potential opportunities and investments.

## Programme

FH/Hall C

- 14:00 Welcome and Session Objectives
- 14:05 Presentations: Private Sector Perspectives
- 14:50 Questions and Discussion
- 15:10 Coffee Break
- 15:25 Presentations: Public Sector Perspectives
- 16:10 Questions and Discussion
- 16:30 Coffee Break
- 16:40 Participatory Discussion
- 17:10 Moderated Discussion and Audience Questions
- 17:30 Wrap-up
- 17:45 End of Seminar

## Structure

### PRIVATE SECTOR PERSPECTIVES:

- Exploring main challenges for participation in the sector
- What are the potential opportunities
- What requirements are looked for prior to investing
- Case studies, experiences and lessons learned

### PUBLIC SECTOR PERSPECTIVES:

- Regulatory framework for private sector investments
- What are the main challenges for engagement
- Case studies, experiences and lessons learned

### GUIDED PARTICIPANT DISCUSSIONS

- Crucial issues to foster public-private partnerships that build into the context of social and environmental sustainability
- Next steps (identifying possible pilot projects)

# Award Ceremony

## Stockholm Water Prize

16:30, Stockholm City Hall

**The Stockholm Water Prize is an international award presented by the Stockholm Water Foundation annually in honour of outstanding achievements in science, engineering, technology, education or public policy related to protection of the world's water resources.**

Any activity or actor which contributes broadly to the availability, conservation and protection of the world's water resources, and to improved water conditions which contribute to the health of the planet's inhabitants and ecosystems, is eligible to be nominated.

The Stockholm Water Prize, which was first awarded in 1991, is valued at USD 150,000. HM King Carl XVI Gustaf of Sweden is the Patron of the Stockholm Water Prize. This year, the award celebrates its 15th jubilee and a separately produced booklet in your delegate bags presents all Stockholm Water Prize Laureates and their achievements.

The 2005 Stockholm Water Prize will be awarded to the Centre of Science and Development (CSE) in New Delhi, India, under the leadership of Ms. Sunita Narain. During the World Water Week opening session, Ms.

Narain will have the honour of presenting the annual Laureate Lecture. Other speaking activities will include an address during the Stockholm Junior Water Prize Award Ceremony and during the Founders Seminar. In addition, Ms. Narain will participate in a seminar convened by CSE and the Swedish International Development Co-operation Agency.



Photo: SIWI

Thursday  
August 25

## Social Activity

### Aquatic Adventure

The Aquaria Water Museum in Stockholm invites World Water Week participants to its unique environment. Experience the day-night simulation of a real tropical rainforest ecosystem, explore a magnificent coral reef with sharks, mangroves and see the unique salmon hatchery where fish come directly from the Baltic Sea into the museum for spawning.

A light meal is served and the beautiful surroundings at the shoreline guarantee an interesting and relaxing evening.

Price: 350 SEK (light meal included)



Aquaria Water Museum, 17:30–21:00

Photo: Aquaria

# Closing Day Plenary

Main Congress Hall

- 09:00 **Plenary Session**  
**CHAIR:** *Dr. Akissa Babri*, Director of Research, National Research Institute for Agricultural Engineering, Tunisia
- 09:00 *Prof. James E. Nickum*, Tokyo Jogakkan College, Japan
- 09:20 **Water as a Natural Hazard – From Flood Control to Risk Management.** *Dr. Ing. Wolfgang Kron*, Head, Hydrological Risks Department of Geo Risks Research and Environmental Management, Munich Reinsurance Company AG, Germany
- 10:00 **Coffee Break**
- 10:30 **Closing Session**
- 10:30 **The Swedish Baltic Sea Water Award Presentation**  
 Ministry for Foreign Affairs, Sweden
- 10:45 **Best Poster Award**  
*Mr. Claus Hagebro*, Scientific Programme Committee, Stockholm Water Symposium
- 11:00 **World Water Week Synthesis Panel**  
 Symposium Workshop Conclusions and Selected Seminar Conclusions
- 12:30 **OVERARCHING CONCLUSIONS OF THE 15TH STOCKHOLM WATER SYMPOSIUM**  
*Prof. Malin Falkenmark*, Member of the Scientific Programme Committee, Stockholm International Water Institute (SIWI), Sweden
- 12:45 **Closing Address**  
*Mr. Anders Berntell*, Executive Director, Stockholm International Water Institute (SIWI), Sweden  
 Cultural Event
- 13:00 **End of Closing Session**



Photo: SIWI

## Synthesis Panel: Taking Stock in Stockholm

**The World Water Week Synthesis panel on August 26 will sum up the week in pursuit of insight on how billions of people can be helped to live healthier, more dignified lives, and how hard and soft solutions can ensure that regional development in drainage basins really happens.**

The panel will consist of a select group of chairs from the week's Stockholm Water Symposium workshops and some of the independently organised seminars. The panel's purpose: to present in brief the findings from specific events and then, in panel discussion format and interaction with the audience, determine how the various issues and conclusions fit, support or contradict one another.

Like the World Water Week, the panel will touch on core issues like access to water supply and sanitation, corruption and large-scale infrastructure but also many other important and related issues taken up in workshops and seminars. Achieving water quality objectives, attaining

more transparent water governance, coping with climate variability, and improving water use efficiency within industry and agriculture are among the many important subjects being addressed during the week.

Panelists will represent a selected group of workshop and seminar convenors and the audience will be included in intensive discussions on key findings of the World Water Week.



Photo: SIWI

# Award Ceremonies

## Swedish Baltic Sea Water Award

Closing Session

**The Swedish Baltic Sea Water Award, a regional award that recognises direct and practical initiatives that contribute to improvement in the Baltic Sea's water quality, is presented annually by the Swedish Ministry for Foreign Affairs during the World Water Week in Stockholm.**

The Swedish Baltic Sea Water Award was established in 1999 to highlight what different stakeholders have accomplished individually or collectively to improve the Baltic Sea's water environment. The award can be presented to an individual, company, organisation or an authority in the countries bordering the Baltic Sea.

On Friday, August 26, the winner of the 2005 Swedish Baltic Sea Water Award will be recognised during the closing session for the 2005 World Water Week. A wide range of individuals, organisations and companies have received the award in its first five years of existence. At the closing session, this year's recipient will be honoured for its outstanding contributions on behalf of the Baltic Sea's water environment. The award winner this year is Vodokanal, which is the municipal water utility for St. Petersburg. They together with Mr. Karmazinov have been the driving forces behind the completion of the Southwest Wastewa-

ter Treatment Plant (SWTP), which will be inaugurated in September 2005. Once it does, 1.5 million citizens of the city will no longer on a daily basis send 330,000 cubic metres of untreated wastewater – enough to fill 330 Olympic-size swimming pools – straight into the Neva River and from there, the Gulf of Finland and thus the Baltic Sea.

Among the many benefits will be the eventual easing of problems caused by the excessive growth of algae, which reduce dissolved oxygen in the water and thus can kill other marine life.



Photo: SIWI

## Best Poster Award

Closing Session

**Posters presented during the Stockholm Water Symposium have always been an important component of the overall World Water Week programme. Special efforts are made to make them accessible to Symposium participants and incorporated into the deliberations taking place during the Symposium.**

The posters will be displayed during the poster sessions arranged on Tuesday and Wednesday where the author(s) will be given an opportunity to highlight the key points of the poster, respond to queries and otherwise interact with other participants. Poster abstracts are published in the abstract volume.

The winner receives a diploma as well as complimentary registration plus travel and accommodation for one person for the 2006 World Water Week.



Photo: SIWI

## Seminar

## SIWI Seminar: Benefit Sharing from Integrated Land and Water Use in River Basins

**Convenor: Stockholm International Water Institute and Gødal Environment Facility**

Continued degradation and depletion of land and water resources obstructs efforts to increase world food production and alleviate hunger in line with the Millennium Development Goals. Food insecurity is a grave challenge in many developing countries, as are the possibilities for overcoming it. Food access is fundamental to social sustainability. Since land and water productivity are interlinked, a core policy problem is the "single sector approach," which ignores linkages among the interacting components in a catchment. Prevailing approaches maximise benefits for one sector without considering impacts on or complementarities to other sectors.

Both food security and environmental sustainability depend on a paradigm shift. Design of land and water use within basins in order to achieve optimal use of basin resources is highly relevant. A resource use strategy must be combined with a policy where the derived benefits can be properly accessed and shared. Integration is urgent in closed or closing river basins. Here, little water can be appropriated to meet additional water needs and where, thus, competition between users is intense.

The seminar will scrutinise strategies for optimising and sharing benefits of water through integrated approaches.

### Programme

**FH/Room 307, 10:00–15:00**

10:00 Welcome. *Anders Berntell*, Stockholm International Water Institute, Sweden

#### SESSION 1: INNOVATIVE PARADIGMS

- Benefiting from Hydrosocial Links between Upstream and Downstream Stakeholders. *Stephen Merrett*
- Concept of Benefit Sharing as Applied to the Nile River Basin. *Alan Nicol*

#### SESSION 2: SHARING BENEFITS FROM UPSTREAM POTENTIALS

- Sharing Benefits from Upstream Water Storage – The Case of Euphrates-Tigris Basin. *Oclay Ünver*
- Sharing Benefits from Upstream Hydropower Production – The Case of the Blue Nile. *Alessandro Palmieri*

#### SESSION 3: FACILITATING UPSTREAM ACCEPTANCE OF DOWNSTREAM WATER NEEDS

- Towards Upstream Acceptance of Downstream Needs for Environmental Flow – The Case of Okavango. *John Mendelsohn and Selma el Obeid*
- Regulating Upstream Consumptive Water Use – The case of Irrigation CAP in Murray Darling Basin. *Jennifer McKay*

#### SESSION 4: GENERAL DISCUSSION

- Conclusions

15:00 End of Seminar





# Technical Tours

## Lake Bornsjön – Local Drainage Basin Management

**Convenor: Stockholm Water Company**

**09:00–14:00**

Lake Bornsjön is Stockholm's reserve source of water supply. The beautiful lake and its catchment area are protected and managed in an integrated way in co-operation with agriculture, forestry and private households. The area is owned by the Stockholm Water Company.

**Price: 350 SEK (lunch included)**



Photo: Stockholm Vatten AB



Photo: SB

## New Sanitation Solutions in Stockholm

**Convenor: VERNA Ekologi AB**

**09:00–17:00**

Join other World Water Week participants for a day-long technical tour covering new sanitation examples in the Stockholm area. In the morning, a visit to the Nature School of Velamsund, where a unique wastewater exhibition is on display and participants can test different toilet pedestals and urinals, and Nyckelviken, where urine is reused for cultivation of flowers and vegetables, are planned. In the afternoon, a visit to Kullön will place in the spotlight the integration of conventional and new sanitation in the Stockholm archipelago. A combination of double-flush urine diversion and tertiary treatment of wastewater are the highlights here.

**Price: 500 SEK (lunch included)**

## Lovö Waterworks and Increased Protection of Lake Mälaren

**Convenor: Stockholm Water Company**

**09:00–14:00**

Lovö Waterworks supplies drinking water to 33% of the residents of Stockholm. It is situated by Lake Mälaren, which is among the ten largest lakes in Europe. An enlarged protection area is proposed to safeguard water quality in the eastern part of this wide-stretched lake.

**Price: 350 SEK (lunch included)**



Photo: SB

# EU Water Initiative Partners Meeting

Convenor: European Commission, Supported by the Swedish Water House

The EU Water Initiative, launched during the 2002 World Summit on Sustainable Development in Johannesburg, is designed as a catalyst and a foundation on which action can be built to contribute to meeting the Millennium Development Goals for drinking water and sanitation, within the context of an integrated approach to water resources

management. A multistakeholder process mobilising partners from governments, IFIs and other donors, civil society organisations, water users and the water industry, both in Europe and in partner countries, facilitates progress and coordinates the efforts of all the actors involved. The Meeting consists of three sessions and two separate seminars.

## Programme NL/Pillar Hall

**Tuesday, August 23, 09:30–12:30**

### SESSION 1: OWNERSHIP AND MAKING EFFECTIVE PARTNERSHIPS

09:30 Introduction

**CHAIR:** *Mr. Bedoumra (tbc)*, African Development Bank

**RAPPORTEUR:** *Mr. Jean-Pierre Elong-Mbassi*, Municipal Development Partnership, Benin

09:45 Partner Countries: Africa, Latin America

Stakeholders: EECCA, Civil Society, Water Operator

11:00 Coffee Break

11:15 General Discussion

12:15 Wrap-up and Conclusions to be Reported to the Multistakeholder Forum

12:30 End of Session

**Tuesday, August 23, 14:30–17:30**

### SESSION 2: HOW TO MOBILISE LOCAL DEMAND AND INCREASE AID EFFICIENCY TO ACHIEVE THE MDGs? THE BENEFIT OF NATIONAL DIALOGUE PROCESSES

14:30 Introduction

**CHAIR:** *Mr. Dick van Ginhoven*, Ministry of Foreign Affairs, The Netherlands

**RAPPORTEUR:** *Mr. Khomoatsana Tau*, Ministry of Natural Resources, Lesotho

14:45 Country Specific Presentations: Mozambique, Ethiopia  
Partners: OECD, UNEP-GPA

16:00 Coffee Break

16:15 General Discussion

Lessons Learnt from the Dialogue Process and Relationships to Other Processes

17:15 Wrap-up and Conclusions to be Reported to the Multistakeholder Forum

17:30 End of Session

**Wednesday, August 24, 09:30–12:30**

### SESSION 3: HOW TO STRENGTHEN LINKS BETWEEN WATER SUPPLY AND SANITATION AND INTEGRATED WATER RESOURCES MANAGEMENT

09:30 Introduction

**CHAIR:** *Mr. Michael Scoullos*, GWP Med

**RAPPORTEUR:** *Mr. Mohamed Auer*, WWF, Nairobi, Kenya

09:45 Review of International Projects Addressing IWRM Country Specific Presentations: Kenya, Mauritania, Kazakhstan

11:00 Coffee Break

11:15 General Discussion

12:15 Wrap-up and Conclusions to be Reported to the Multistakeholder Forum

12:30 End of Session

## Potential of the ACP-EU Water Facility for Encouraging Innovative Ways of Financing for the Water and Sanitation Sector

The € 500m ACP-EU Water Facility (EUWF) is a response to the need to increase spending for the water supply and sanitation sector in the Africa, Caribbean and Pacific (ACP) regions to achieve the Millennium Development Goals (MDGs) for the water and sanitation sector. The objective of the Facility is to boost the sustainable access to safe drinking water and basic sanitation with specific focus on the poor and to improve water governance in ACP countries. Still financial gaps are huge and there is a need to find innovative ways of financing increased access to water and sanitation. What is realistically feasible in the short and medium term? Are there already some lessons learnt? How should the EU support innovative financing mechanisms?

## Programme

NL/Pillar Hall

**Wednesday, August 24, 14:30–17:30**

14:30 Introduction and Brief Presentation on the EU Water Facility – How are we Progressing and Questions Relating to Innovative Ways of Financing

**CHAIR:** *Mr. Gabin Hamann*, ACP-EU Water Facility Unit

**CO-CHAIR:** Member of the EUWI Financing Working Group (tba)

14:50 Roles and Opportunities for Innovative Finance in the ACP

Water and Sanitation Sector. *Mr. Jose Frade*, EIB

- Potential of the ACP-EU Water Facility. *Mr. Lars Grue Jensen*, COWI

- Country Specific Presentations

16:00 Coffee Break

16:15 General Discussion

17:15 Wrap-up and Conclusions to be Reported to the Multistakeholder Forum

**RAPPORTEURS:** *Mr. Niels Palmvang*, COWI and a Sanitation Specialist from ACP (tba)

17:30 End of Seminar

# Multistakeholder Forum of the EU Water Initiative

Thursday, August 25, 09:45–17:00

**Convenor: European Commission Supported by the Swedish Water House**

The 2005 annual meeting of the Multistakeholder forum will be held once again in the context of the World Water Week, to further mobilise EUWI partners, to attract new ones and to develop synergies with other international processes. Organised by the European Commission, the

meeting will be the opportunity to review the main 2004 progress of the EU Water Initiative, to present the 2005 work programme and to discuss the way forward.

**For General Information on the EU Water Initiative Meetings please see page 54.**

## Programme

NL/Pillar Hall

- 09:45 Coffee
- 10:00 Opening Session.  
**CHAIR:** *Mr. Patrick Murphy*, European Commission
- Welcome. *Mr Bengt Johansson*, Swedish International Development Cooperation Agency
  - Key Note Speech. EU Presidency, Representative from Department for International Development (DfID), UK (tbc)
  - Questions and Answers
- 10:30 Review Session
- Presentation of 2004 Annual Report. EUWI-Secretariat
  - Presentation of 2005 Work Programme. Working Group Leaders: The Netherlands, France; European Commission; Greece; Spain/Portugal; UK; Italy
  - Discussion
- 11:00 The Way Forward.  
**CHAIR:** *Mr. Patrick Murphy*, European Commission
- Introduction of the Long Term Strategy of the EUWI
  - Preliminary Discussion
- 12:30 Lunch
- 13:30 The Way Forward (Continued).  
**CHAIR:** *Mr. Patrick Murphy*, European Commission
- Presentations of the Conclusions of Specific Sessions:
- SESSION 1: OWNERSHIP AND MAKING EFFECTIVE PARTNERSHIPS**  
**RAPPOREUR:** *Mr. Jean-Pierre Elong-Mbassi*, Municipal Development Partnership, Benin
- SESSION 2: HOW TO MOBILISE LOCAL DEMAND AND INCREASE AID EFFICIENCY TO ACHIEVE THE MDGs? THE BENEFIT OF NATIONAL DIALOGUE PROCESSES.** **RAPPOREUR:** *Mr. Khomoatsana Tau*, Ministry of Natural Resources, Lesotho
- ACP-EU Water Facility Session: Innovative Financing Instruments to Achieve Water-Related MDGs: Lessons from the First Call for Proposals of the ACP-EU Water Facility.  
**RAPPOREUR:** *Niels Palmvang*, COWI and a Sanitation Specialist from ACP (tba)
- SESSION 3: HOW TO STRENGTHEN LINKS BETWEEN WATER SUPPLY AND SANITATION AND INTEGRATED WATER RESOURCES MANAGEMENT?** **RAPPOREUR:** *Mr. Mohamed Awer*, WWF, Nairobi, Kenya
- 14:30 Discussion
- 15:30 Coffee Break
- 16:00 Presentation of the Draft Conclusions. EUWI-Secretariat
- Final Discussion
- 16:45 Closing Session. EU Presidency, Representative from Department for International Development (DfID), UK (tba)
- Wrap-up and Conclusions.  
**CHAIR:** *Mr. Patrick Murphy*, European Commission
- 17:00 End of Seminar



Photo: Jan Lundqvist



Photo: SIWI

## General Information

The 2005 World Water Week in Stockholm, including the 15th Stockholm Water Symposium, takes place from August 21–27, 2005, at the Stockholm City Conference Centre/Folkets Hus as well as other venues, as listed in this program.

### Registration/Information Desk

The Registration/Information Desk is located just outside of the main plenary hall in the Stockholm City Conference Centre/Folkets Hus, Barnhusgatan 12–14. Representatives of the Stockholm Convention Bureau are on hand to answer questions about registration and tickets, Stockholm and much more.

#### The registration desk will be open:

Saturday, August 20, 15:00–17:00  
Sunday, August 21, 08:00–18:00  
Monday, August 22, 08:00–18:00  
Tuesday, August 23, 08:00–18:00  
Wednesday, August 24, 08:00–18:00  
Thursday, August 25, 08:00–18:00  
Friday, August 26, 08:00–15:00  
Saturday, August 27, 08:00–13:00

### World Water Week Secretariat

The Symposium Secretariat, Room 201, handles all logistical and program-related details during the World Water Week.

### Computer Resource Room

In connection to the Secretariat is a Computer Resource Room (Room 401), where attendees can read and send e-mail and print out documents. A wireless network is available in the whole building.

### SIWI Publications and Other General Information

A wide variety of SIWI research publications, reports and other material will be available for free all week at the information table across from the Registration/Information Desk. Take some for yourself and for your colleagues!

### Speaker Ready Room

Workshop speakers can check their slides and overhead projections in Room 202, the Speaker Ready Room. This should be done the day before the actual presentation. *Mr. Erik Freudenthal* and his staff in Room 202 can assist and answer any questions related to visual presentations.

### Press Room

A fully staffed press room is available to accredited journalists, who can get assistance with interview requests, work in a quiet environment, obtain information on scheduled press events, or enjoy a cup of coffee. The press accreditation and work room is Room 204. Room 206 is also a work room for press when not booked for private interviews or hosting press events.

### Language

English is the official language and will be used for all presentations and printed material. Simultaneous interpretation will not be available.

### Insurance

Neither the organisers of the event nor the Stockholm Convention Bureau, StoCon, accept any liability for personal injuries sustained, or for loss or damage to property belonging to participants, either during or as a result of the meeting.

### Credit Cards

Most hotels, restaurants and shops in Stockholm accept the major credit cards. Banking and Exchange Facilities: There are a number of exchange offices in Stockholm, for instance at the Central Railway Station, open daily

08:00–21:00. Ask the concierge at your hotel for the location and opening hours of the exchange office closest to your hotel. At Arlanda Airport you will find the exchange offices in the terminals.

### Telephone

Payphones are available at the City Conference Centre/Folkets Hus both for local and long-distance calls. Credit card phones are available throughout the city and also at the conference venue. Mobile telephones must be switched off during all meetings.

### Emergency

In an emergency situation, you should contact the Swedish Police by phoning "112". This emergency number is for use when an immediate response is required. In non-emergency situations, call the Stockholm police or visit the nearest police station. Useful numbers:

Emergency phone number: 112

Stockholm County Police phone number: 401 00 00

Fire emergency phone number: 454 87 00

Ambulance phone number: 112

### Stockholm Water Front World Water Week Daily

Keep informed all week long with the *World Water Week*



Photo: SIWI

*Daily*, a special edition of *Stockholm Water Front* which will present highlights and summaries events during the week.

### Contacts

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**During the World Water Week, August 21–27:**  
Stockholm City Conference Centre/Folkets Hus  
Barnhusgatan 12–14  
P O Box 70471  
SE-10471 Stockholm, Sweden  
Tel: +46 8 506 166 00, Fax: + 46 8 10 90 71

### Organisers

The Stockholm International Water Institute (SIWI) organises and hosts the World Water Week in Stockholm with the Stockholm Water Symposium.

SIWI is comprised of *Mr. Anders Berntell*, Executive Director, *Ms. Gunnel Sundbom*, Deputy Executive Director and Manager, Stockholm Water Prize, *Ms. Katarina Andrzejewska*, Coordinator, World Water Week, *Mr. Per Bertilsson*, Project Director, *Ms. Stephanie Blenckner*, Communications Manager, *Mr. Ulf Ehlin*, Scientific Director, *Ms. Malin Falkenmark*, Professor, *Ms. Kerstin Harnesk*, Head of Administration, *Ms. Pernilla Kontio*, Administrative Officer, *Mr. Johan Kuylenstierna*, Project Director and Manager, Swedish Water House, *Ms. Frida Landshammar*, Manager, Stockholm Junior Water Prize, *Mr. Jan Lundqvist*, Professor, *Mr. Michael Moore*, Programme Administrator, *Ms. Christina Ritzl*, Project Assistant, *Ms. Adèle Skogsfors*, Project Assistant, *Ms. Maria Stenström*, Communications Manager, *Ms. Susanna Tomic*, Administrative Officer, *Dr. Håkan Tropp*, Project Director, Swedish Water House and *Mr. David Trouba*, Communications Manager.

SIWI would like to thank *Mr. Erik Freudenthal* of the Stockholm Water Company, *Ms. Helena Stark* and the staff at the Stockholm Convention Bureau, *Ms. Marie Györi* at Quadrata HB, and *Mr. Erik Kristensen* at Eriks Evenemang.

### EU Water Initiative Meetings

The Meetings on the EU Water Initiative will take place August 23–25, 2005. The sessions are free of charge. Please observe that the EU Water Initiative Meetings require special registration. Contact [EUWI@siwi.org](mailto:EUWI@siwi.org) to receive the registration form and further information.

A registration for the EU Water Initiative Meetings does not entitle you to participate at other World Water Week events. Please visit the World Water Week registration desk if you wish to participate in other meetings.

### Venue

The Meetings on the EU Water Initiative will take place at the City Conference Centre/Norra Latin ([www.stoccc.se](http://www.stoccc.se)), Drottninggatan 71 B, in central Stockholm.

### Registration Desk

The registration desk at Norra Latin will be open:

Tuesday	23 August	08:30 – 14:00
Wednesday	24 August	08:30 – 14:00
Thursday	25 August	08:30 – 12:00

### Conference Secretariat

For registration and hotel information:

EUWI 2005  
Stockholm Convention Bureau  
PO BOX 6911, SE-102 39 Stockholm, Sweden  
TEL: +46 8 546 515 00, FAX: +46 8 546 515 99  
E-MAIL: [confirmation@stocon.se](mailto:confirmation@stocon.se)

During the Meetings August 23–25:  
City Conference Centre/Norra Latin  
Drottninggatan 71 B  
SE-107 26 Stockholm, Sweden  
TEL: +46 8 506 166 70, FAX: +46 8 506 167 87  
E-mail: [norralatin@stoccc.se](mailto:norralatin@stoccc.se)



# WORLD WATER WEEK

in Stockholm  
August 21–27, 2005

## Stockholm – Where the Water World Meets

Organised by the Stockholm International Water Institute, the World Water Week in Stockholm is the leading annual global meeting place for the world's diverse water community. It includes the Stockholm Water Symposium, topical plenary sessions and panel debates, scientific workshops, independently organised seminars and side events, exhibitions and festive prize ceremonies honouring excellence in the water field.

[www.worldwaterweek.org](http://www.worldwaterweek.org)

## Stockholm International Water Institute

Independent and Leading-Edge Water Competence for Future-Oriented Action.

The Stockholm International Water Institute (SIWI) is a policy institute that contributes to international efforts to find solutions to the world's escalating water crisis. SIWI advocates future-oriented, knowledge-integrated water views in decision making, nationally and internationally, that lead to sustainable use of the world's water resources and sustainable development of societies.

[www.siw.org](http://www.siw.org)



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