



International Conference  
20-22 November 2002  
IHE Delft, The Netherlands

# From Conflict to Co-operation in International Water Resources Management: Challenges and Opportunities

Preceded by a Pre-conference  
Workshop on 'Conflict Assessment  
and Resolution for Reservoir  
Systems' – 19 November 2002

UNESCO / IHP / WWAP / GREEN CROSS INTERNATIONAL  
MOST / IHE



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From  
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in **International Water**  
**Resources Management:**  
Challenges and Opportunities

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## Background

In the past hundred years, the world's population has tripled while world demand for water has increased seven-fold. The signs of a looming water crisis are evident. Since water is essential to every aspect of life, this crisis affects everything — health, human rights, environment, economy, welfare, politics, culture — and is well beyond the scope of any individual country or sector to deal with unilaterally. The need for integrated, cooperative solutions is particularly urgent in the 261 river basins which are shared by two or more states. These basins include nearly half of the territory and population of the world.

In this context of crisis, the 21<sup>st</sup> century is often labelled as a period that is likely to experience wars over water. Indeed, given the multifaceted and often transboundary nature of the diminishing water resources of the Earth and their variable occurrence in time and space, tensions have certainly arisen over their use. A growing number of states are experiencing permanent water stress, and the mechanisms and institutions needed to manage disputes over water resources are often absent or inadequate. Many people fear an increase in inter-state tensions, and some even allege that such tensions will inevitably lead to armed conflicts.

This prophecy has no doubt contributed to making water an international political and policy issue. 'Water Security for the 21<sup>st</sup> Century', the Declaration of the Ministerial Conference held during the 2<sup>nd</sup> World Water Forum in March 2000 clearly echoes this sentiment.







However, historical evidence shows that water has rarely been the primary reason for armed conflicts between sovereign states. On the contrary, it is precisely due to its essential nature that freshwater can be a powerful incentive and catalyst for co-operation. As an example, the necessity to manage water use and to organize defences against the unpredictable nature of water was a major factor in the emergence of early riverine civilizations.

Water as a potential cause of conflicts and water as an agent of co-operation can be seen as two sides of the same coin. Yet it requires determination and intervention to have the cooperative side prevail. Otherwise, humanity indeed faces an endless water crisis. Competition among water users will inevitably further increase. Accommodating competing demands is even more complicated in the case of internationally shared basins and aquifers, and requires international co-operation.

In response to these challenges, the World Water Assessment Programme (WWAP), a UN-system wide effort, was launched in 2000, to develop a scientific assessment methodology for the resource, its use, and its management. Periodic World Water Development Reports will provide policy relevant information to decision-makers and professionals, to monitor humanity's efforts to master the 'looming water crisis'.

UNESCO and Green Cross International are contributing to WWAP with their joint programme 'From Potential Conflict to Co-operation Potential: Water for Peace' (*PC→CP: Water for Peace*), which strives to examine and foster the potential for shared water resources to become a catalyst for regional

peace and development through dialogue, co-operation and participative management of transboundary river basins.

For more details on WWAP and *PC→CP: Water for Peace* please connect to: [www.unesco.org/water/wwap/pccp](http://www.unesco.org/water/wwap/pccp) and [www.greencrossinternational.net](http://www.greencrossinternational.net). Furthermore, in preparation for the 3<sup>rd</sup> World Water Forum to be held in Kyoto, Osaka and Shiga in Japan in March 2003, Green Cross International and UNESCO have initiated the topical discussion on *PC→CP: Water for Peace* on the Virtual Water Forum.

You are invited to register for and contribute to this virtual session at [www.worldwaterforum.org](http://www.worldwaterforum.org).

## Objectives

The international conference 'From Conflict to Co-operation in International Water Resources Management: Challenges and Opportunities' is conceived as a major preparatory event of the 3<sup>rd</sup> World Water Forum to be held in March 2003. It is organized:

- To reflect on the results of the World Summit on Sustainable Development (Rio + 10) in Johannesburg and its impact on sustainable transboundary water management;
- To introduce the first results of the *PC→CP: Water for Peace* Programme and to discuss them with stakeholders of the 'Water World': water professionals (practitioners, administrators and academia), decision makers, representatives of civil society, diplomats and educators. Both the programme and conference aim to achieve a better understanding of the drivers and mechanisms of co-operation as well as the roots of conflicts and resolutions in the different political and social settings;

- To provide a forum where the stakeholders of the 'Water World' can present their research results, report on case studies, and discuss ideas and initiatives for future action;

- To present good practices in co-operative transboundary water management, and identify alert signals of potential water conflicts and tools for preventive diplomacy;

- To consider the necessary human and institutional capacity building.

## Principal issues addressed

Emerging issues relevant for Water Resources Management are likely to both influence co-operation opportunities and create new conflict potentials. Therefore, to deepen the understanding of the main causes of conflict and identify good co-operation practices, particularly with respect to public participation in international co-operation, the conference will primarily address the following issues:

- Institutionalizing co-operation mechanisms: some means and tools.
- 'Enlarging the pie?': identifying, claiming and creating benefits.
- Private and public actors and partnerships on different scales.
- Political, climatic, social and technological changes and their impacts.

Furthermore, the conference will take stock of legal, ethical and other principles stimulating co-operation, and will examine causes and propose solutions to current implementation deficiencies.

## Structure of the Conference

The conference aims to encourage discussion and exchange of views from as many disciplines and backgrounds as possible. In order to strengthen this interdisciplinary approach and to strive towards the emergence of coherent conceptual and practical recommendations, the conference is conceived without parallel sessions. To stimulate the debate in plenary sessions, the principal issues will be analyzed in invited keynote speeches and illustrated in a subsequent issue-related case study. These presentations, in the form of moderated discussion, will be made by panels of practitioners from the basin in question and representatives of important stakeholder groups. In the ensuing open debate, some selected contributions will also be presented. The authors of this contributions to be presentations will be explicitly notified.

Invited rapporteurs will summarize the debates and papers accepted for publication in the proceedings. Fact sheets outlining the keynotes and associated case studies will be sent to all registered participants before the conference. Keynote lectures, rapports, papers and poster papers will all be included in the Proceedings. More than 80 papers have been submitted and the submission process is now closed.

**Pre-conference workshop on 'Conflict Assessment and Resolution for Reservoir Systems' – 19 November 2002, UNESCO-IHE Delft, The Netherlands**

09.00 - 13.00 h / 14.00 - 18.00 h

None of the major hydraulic infrastructures or other type of human intervention provokes as much controversy as reservoirs. The international conference 'From Conflict to Co-operation in International Water Resources Management: Challenges and Opportunities' will be preceded by a one-day-long workshop focussing on conflicts and their resolution regarding to reservoirs.

The following themes are selected to reflect several dimensions of potential conflicts. Related issues will be highlighted in keynote presentations, followed by debate:

- 
- A. 'Water Resources Conflict Assessment and Resolution – the Experience of the International Joint Commission (IJC)'**  
Mr. Murray Clamen, IJC, Canada.

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  - B. 'After the World Commission on Dams – National Processes Emerge'** Mr. Jeremy Bird, UNDP.

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  - C. 'Crisis or Opportunity – Gaining Public Acceptance'**  
Ms. Joji Carino, Former WCD-Commissioner.

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  - D. 'Historical Development of Environmental Conflicts of Reservoirs'** Mr. Ada Patera, Czech Technical University Prague, Czech Republic.

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Papers submitted to the following themes will be included in the proceedings:

**1. Alternatives to dams and reservoirs:**

– viability of alternatives, alternative strategies in different climatic and environmental settings, strategies for flood protection, life-time comparisons.

**2. Risk related conflict around reservoirs:**

– successes and failures, natural hazards, role of reservoirs.

**3. Environmental and socio-economic effects and features of reservoirs:**

– flow regimes, ecosystems, aesthetics, landscape preservation, sedimentation, resettlement and compensation, water quality, public relations.

**4. Reservoir and water resource system related conflict assessment and resolution:**

– conflicts between: different water uses and users, resource management, flood alleviation, environmental implications and water resource system operation,  
– resolution of operational conflicts.

**5. Historical development of solutions of conflicts related to reservoirs.**

**Convener:** Prof. Venkat Rao, City University, London, UK.

## Organizers

The Conference is organized jointly by the International Hydrological Programme (IHP) and the Programme on the Management of Social Transformations (MOST) of UNESCO, and Green Cross International within the framework of the World Water Assessment Programme.

## Venue

The Conference will be held at the UNESCO-IHE Institute for Water Education International (former International Institute for Infrastructural, Hydraulic and Environmental Engineering) Delft, 2611 AX Delft, Westvest 7, The Netherlands. The Institute, which is in the forefront of international efforts of human capacity building worldwide, provides with its international student population and staff a stimulating atmosphere for the event.

## Language

The working language of the Conference will be English.



## How to register

Those who intend to participate and wish to receive the final programme of the conference are kindly invited to register either through the electronic registration desk on the WWAP's website mentioned above, or send the attached form to:

*PC*→*CP*: WfP desk at IHE

IHE

P.O. Box 3015

2601 DA Delft

The Netherlands

Tel.: +31(0)15 21 51 733

Fax: +31(0)15 21 22 921

e-mail: pccp@ihe.nl

## Registration

No registration fee will be charged.

## Accommodation

The UNESCO-IHE Institute for Water Education International in Delft organizes the accommodation of participants in local hotels.

A list of hotels of different categories will soon be available on the websites [www.ihe.nl](http://www.ihe.nl) and [www.unesco.org/water/wwap/pccp](http://www.unesco.org/water/wwap/pccp), alongside with further information. To reserve a room, please contact the *PC*→*CP*: WfP desk at IHE (see address above).

## Conference Advisory Committee

**Ingvar Andersson**  
United Nations  
Development Programme  
(UNDP)

**Janos Bogardi**  
UNESCO International  
Hydrological Programme  
(IHP)

**Stefano Burchi**  
Food and Agriculture  
Organization (FAO)

**Bertrand Charrier**  
Green Cross International  
(GCI)

**William J. Cosgrove**  
World Water Council  
(WWC)

**Ashim Das Gupta**  
Asian Institute  
of Technology (AIT),  
Thailand

**Jean-François Donzier**  
International Network  
of River Basin Organisations  
(INBO)

**Rainer Enderlein**  
United Nations  
Economic Commission  
for Europe (UNECE)

**Christina  
von Fürstenberg**  
UNESCO MOST

**David Grey**  
World Bank

**Munther Haddadin**  
Water Expert, Jordan

**Fekri Hassan**  
University College London  
UK/Egypt

**Margaret Catley-Carlson**  
Global Water Partnership  
(GWP)

**Valentine V. Naidenko**  
UNESCO Chair on  
Ecologically Safe  
Development of Large  
Regions: the Volga Basin,  
Russian Federation

**Hideyaki Oda**  
Secretariat 3<sup>rd</sup> World Water  
Forum, Japan

**Victor Pochat**  
Chairman IHP, Argentina

**Jerry Delli Priscoli**  
United States Army Corps  
of Engineers, U.S.A.

**Shammy Puri**  
Commission for  
Transboundary Aquifers  
(TARM),  
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of Hydrogeologists (IAH)

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Interdisciplinary UNESCO  
Chair for Sustainable Water  
Management, Morocco

**Le Huu Ti**  
United Nations  
Economic and Social  
Commission for Asia and  
the Pacific (UN ESCAP)

**Aaron Wolf**  
Oregon State University  
(OSU), U.S.A.

**Gordon Young**  
World Water Assessment  
Programme (WWAP)



### Tuesday, 19 November 2002

09.00 - 18.00 h Pre-conference workshop on 'Conflict Assessment and Resolution for Reservoir Systems'

### Wednesday, 20 November 2002

08.00 - 10.00 h Registration

10.00 - 11.30 h Opening Session

- Welcome by the Rector of UNESCO-IHE Institute for Water Education.
- Opening address from Koichiro Matsuura, Director-General of UNESCO.
- Opening address from Mikhail Gorbachev, President of Green Cross International.
- Address from Marcian Swiecicki, Coordinator, Office of Economic and Environmental Activities, OSCE.

11.30 - 12.00 h *Coffee break*

12.00 - 13.00 h Presentation of the Programme  
*PC→CP: Water for Peace.*

- Bertrand Charrier, Green Cross International.
- Janos Bogardi, UNESCO International Hydrological Programme.

13.00 - 14.00 h *Lunch*

14.00 - 15.45 h **Keynote: Institutionalizing co-operation mechanisms: some means and tools.**

- William J. Cosgrove, World Water Council.

**Panel and debate**

**Case study:** International River Basins in West Africa – Focus on Volta River.

**Chair of Panel:** Jean-François Donzier, President, International Network of Basin Organisations (INBO).



15.45 - 16.15 h *Tea break*

16.15 - 18.00 h Paper presentations and discussion

18.00 - 20.00 h Poster session and Icebreaker

### Thursday, 21 November 2002

09.00 - 10.45 h **Keynote: 'Enlarging the pie?': identifying, sharing and creating benefits.**

- Representative of PC→CP.

**Panel and debate**

**Case study:** Lesotho Highland Water Scheme / Orange River.

**Chair of Panel:** R. M. Teka Teka, Chief Delegate, Lesotho Highland Water Commission, Delegation of South Africa (*to be confirmed*).

10.45 - 11.15 h *Coffee break*

11.15 - 13.00 h **Keynote: Private and public actors and partnerships on different scales.**

- Margaret Catley-Carlson, Global Water Partnership (GWP).

**Panel and debate**

**Case study:** Danube River Basin.

**Chair of Panel:** Joachim Bendow, Executive Secretary, International Commission for the Protection of the Danube River (*to be confirmed*).

13.00 - 14.00 h *Lunch*



- 14.00 - 15.45 h **Keynote: Climatic, social and technological changes and their impacts.**
- Slobodan Simonovic, Professor and Research Chair, Institute for Catastrophic Loss Reduction, University of Western Ontario.
- Panel and debate**
- Case study:** Mekong River basin.
- Chair of Panel:** Sokhem Pech, Director of Technical Support Unit of the Mekong River Commission (MRC).
- 
- 15.45 - 16.15 h *Tea break*
- 
- 16.15 - 17.00 h **Synthesizing debate**
- 

### Friday, 22 November 2002

- 09.00 - 10.45 h **Presentation: Summaries of four issue debates by the rapporteurs.**
- Discussion**
- Keynote: Implementing international security agreements – interaction with water resources management.**
- Representative of OSCE .
- 
- 10.45 - 11.15 h *Coffee break*
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- 11.15 - 13.00 h **Panel and debate**
- Case study:** Lempa River basin.
- Chair of Panel:** Munther Haddadin, former Minister of Water Affairs, Jordan.
- Keynote: What incentives does water offer for co-operation?:**
- 'Ethical and cultural incentives of water for co-operation'
- Fekri Hassan, London University College.
- 'Water as a vehicle for inter-state co-operation under scarcity conditions: a legal perspective'
- Stefano Burchi, FAO.
- 
- 13.00 - 14.00 h *Lunch*
- 
- 14.00 - 15.15 h **Keynote: International support for co-operation around water: education, awareness raising, governance: towards an advisory panel?**
- Aaron Wolf, Oregon State University.
- Debate: 'PC→CP: Water for Peace quo vadis? Ideas for the programme's 2<sup>nd</sup> phase'.**
- Moderator:  
Lord Selborne, Chair Subcommission on Freshwater, World Commission of the Ethics of Scientific Knowledge and Technology (COMEST).
- 
- 15.15 - 15.30 h **Closing Session**
- 
- 15.30 - 18.00 h **Opening Ceremony of the UNESCO – IHE Institute for Water Education, Delft**
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- 20.00 - 22.00 h *Dinner*
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MOST / IHE

Title:

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Name, Forename:

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Institute / Organization / Company:

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Mailing address:

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Tel.:

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Fax:

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E-mail:

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- I intend to participate in the Pre-conference Workshop
- I intend to participate in the Conference
- I intend to join the dinner on Friday, 22 November
- I need a hotel reservation for the following period:

Arrival date:

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Departure date:

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Date:

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Signature:

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Please fill in legibly or with a typewriter and send to:

PC→CP: WfP desk at IHE

IHE

P.O. Box 3015

2601 DA Delft

The Netherlands

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Website:

[www.unesco.org/water/wwap/pccp](http://www.unesco.org/water/wwap/pccp)

### Green Cross International

Water Conflict Prevention

Programme

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