

5th World Water Forum

**Theme 2. Advancing Human Development and the Millennium
Development Goals (MDG)**

Topic 2.3. Water and Food for ending poverty and hunger

SESSION SITUATION DOCUMENT

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on behalf of the

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SUMMARY

Preparations for the 5th World Water Forum (WWF5), to be held in Istanbul, Turkey, 16 - 22 March 2009 are in their final stage. The main theme of WWF5 is *Bridging Divides for Water*. This time a set-up of the program is chosen, consisting of six Themes and under each Theme about four topics. One of the Themes is Theme 2: *Advancing Human Development and the Millennium Development Goals (MDG)*. Under this Theme there are four Topics. One of these topics is Topic 2.3: *Water and Food for Ending Poverty and Hunger*.

For each Theme and each Topic one or two coordinators take care for the preparation and organisation of the sessions to be held during WWF5 in close cooperation with the World Water Council (WWC) and the host organiser Turkey. The coordinator for Theme 2 is UN-Water/FAO. Coordinator for Topic 2.3 is the International Commission on Irrigation and Drainage (ICID). For each Theme and each Topic a Consortium has been established of key interested parties, based upon their interest in and/or relevance to the Theme or the Topic. Among others, these consortia are expected to prepare the Session Plan on the Theme or the Topic and play an active role in the conduct of the sessions during WWF5.

This Session Situation Document contains the set up of the sessions of Topic 2.3. It got its final shape after two Consortium meetings and various intermediate rounds of revisions and comments received from the Consortium and Consultation Partners, the convenors, as well as especially through the virtual meeting space (VMS) platform that has been established for the 5th World Water Forum. It shows the format of the sessions on this topic during the 5th World Water Forum is shown in an adapted format in the Forum programme. The session officers, panel members, and speakers are as good as reasonably possible based on the interest shown during the previous months of preparation, as well as on the different balances as requested by the organisers. The plan is intended to show the final pre-forum information for the Consortium Partners, the Consultation Partners, the Theme coordinator, the Forum organisers, the session officers, speakers and panel members and for all those who are interested in the topic.

The Session Situation Document based on the key questions that got especially their final format after the first Consortium meeting, 3 September 2008, Montpellier, France. The key questions are:

- I. How to achieve the required food production to meet the growing demand?
- II. How can food market measures boost rural development and poverty alleviation?
- III. Water for bioenergy or food?
- IV. How can better water management reduce poverty and hunger? A synthesis.

This Session Situation Document presents the updated set up of the four sessions on Topic 2.3 during the Forum. Session I is the introductory session and is scheduled on Wednesday March 18, 14.30 – 19.00 hour. Sessions II and III are parallel sessions and are both scheduled on Thursday March 19, 8.30 -13.00. Session IV is a plenary session and includes the integration of the previous three sessions. This session is scheduled on Thursday March 19, 14.30 – 16.30. This scheduling implies that for the Sessions I, II and III a duration of four hours has been scheduled and for Session IV two hours.

This Session Situation Document has been circulated among the Consortium Partners, Consultation Partners and others who have shown an interest in the topic. The document can be downloaded from the web sites of ICID: www.icid.org and of the Forum organisers: www.worldwaterforum5.org, as well as from the Virtual Meeting Space (VMS) that has been created for the Forum.

Contents

Summary

Contents

I. Introduction

II. Set up of the 5th World Water Forum

III Key issues of Theme 2. Advancing Human Development and the Millennium Development Goals (MDG)

IV. Key issues of Topic 2.3. Water and Food for ending poverty and hunger

V. Session Plan Topic 2.3

V.1 Important reminders

V.2 Session I. How to achieve the required food production to meet the growing demand?

V.3 Session II. How can food market measures boost rural development and poverty alleviation?

V.4 Session III. Water for bioenergy or food?

V.5 Session IV. How can better water management reduce poverty and hunger? A synthesis.

VI. Proposed steps until and after WWF5

Annexes

I Consortium and Partners and Consultation Partners of Topic 2.3 of WWF5 and their specific interest

II References

I Introduction

The main theme of the 5th World Water Forum (WWF5) is *Bridging Divides for Water*. This time a set-up of the program is chosen, consisting of six Themes and under each Theme about four topics. Theme 2 concerns: *Advancing Human Development and the Millennium Development Goals (MDG)*. Under this Theme there are four Topics. One of these topics is Topic 2.3: *Water and Food for Ending Poverty and Hunger*.

For each Theme and each Topic one or two coordinators have been identified to take care for the preparation and organisation of the sessions to be held during WWF5 in close cooperation with the World Water Council (WWC) and the host organiser Turkey. The coordinator for Theme 2 is UN-Water/FAO. Coordinator for Topic 2.3 is the International Commission on Irrigation and Drainage (ICID). For each Theme and each Topic a Consortium has been established of key interested parties, based upon their interest in and/or relevance to the Theme or the Topic. Among others, these consortia are expected to prepare a Session Plan.

This Session Situation Document contains the set up of the sessions of Topic 2.3. It got its final shape after two Consortium meetings and various intermediate rounds of revisions and comments received from the Consortium and Consultation Partners, the convenors, as well especially through the virtual meeting space (VMS) platform that has been established for the 5th World Water Forum. It shows the format of the sessions on this topic during the 5th World Water Forum. The session officers, panel members, and speakers have been as good as reasonably possible based on the interest shown during the previous months of preparation, as well as on the different balances as requested by the organisers.

The Session Situation Document is intended for the Consortium Partners, the Consultation Partners, the Theme coordinator, the Forum organisers, the session officers, speakers and panel members and for all those who are interested in the topic.

II Set up of the 5th World Water Forum

The set up of the programme for the 5th World Water Forum consists of six Themes and under each Theme about four topics. The six Themes are:

- Theme 1: *Global Changes & Risk Management*
- Theme 2: *Advancing Human Development and the Millennium Development Goals (MDG)*.
- Theme 3: *Managing and protecting water resources to meet human and environmental needs*
- Theme 4: *Governance and management*
- Theme 5: *Finance*
- Theme 6: *Education, Knowledge and Capacity Building*

Under each Theme there are about four Topics. The Topics under Theme 2 are:

- Topic 2.1: *Ensuring water, sanitation and hygiene for all*
 - * *ensuring adequate infrastructure*
 - * *protecting public health in the near term*
- Topic 2.2: *Water for energy and energy for water*
- Topic 2.3: *Water and food for ending poverty and hunger.*
- Topic 2.4: *Optimizing multiple uses of water systems e.g. water supply and irrigation*

It has been stressed by the Theme 2 coordinator that *'No matter where the debate goes, the role of the topic coordinator will be to maintain the overall direction towards the MDGs. Such an approach will also help us to stay focused as there is otherwise a risk that the discussions will go thin within each topic. It is very clear from the instructions provided to us that the themes and topics are not expected to cover all aspects of the identified challenges but should rather focus on the most critical aspects'*.

In addition the Theme 2 coordinator has stated: *'We will therefore need to establish a process*

where we can ensure consistency and co-ordination among the topics and the overall theme. Such a process will ensure that each topic, through the sessions, is addressing the MDGs appropriately and in a way that later will facilitate aggregation at the theme level and the development of some key draft messages’.

During the Forum 3 to 4 sessions are scheduled for each Topic as well as for the Theme. This Session Situation Document presents the four sessions on Topic 2.3 during the Forum.

III Key issues of Theme 2. Advancing Human Development and the Millennium Development Goals (MDG)

A critical task of Theme 2 is to secure the focus on and linkages to the Millennium Development Goals (MDG) The eight Millennium Development Goals (MDGs) – which range from halving extreme poverty to halting the spread of HIV/AIDS and providing universal primary education, all by the target date of 2015 – form a blueprint agreed to by all the world’s countries and the entire world’s leading development institutions. They have galvanized unprecedented efforts to meet the needs of the worlds poorest. The most relevant MDGs for Topic 2.3 are:

- I. eradicate extreme poverty and hunger
- II. promote gender equity and empower women
- III. ensure environmental sustainability
- IV. develop a global partnership for development

A specificity and critical point of Theme 2 is the MDGs and this should underline the discussions in the debate, questions and the sessions. It should then be ensured that the MDGs are taken on board and be discussed within the specific topic through key questions, etc. The key questions have to be geared in a way that they are addressing the following:

- where do we stand;
- what have we learned recently;
- probably more importantly in terms of impacts of WWF5, what should we propose in terms of interventions revision for increasing the effectiveness of water to achieve the MDGs.

‘Comprehensiveness is banned at WWF5’ in other words the organizers repeatedly said that they don’t want a thin comprehensive approach on all water issues aspects, etc., but more a validated set of focus on which we should go deep. That process avoids adding and adding things as it has been done in the past. Not easy to do because each institute partner stakeholder has its own focus and may want a high share for it, but it will be the role of the theme and topic coordinators to map the entire picture and then get an agreement from the consortium to centre WWF5 on a limited number of critical issues on which progresses can be reasonably expected within the time frame left for the WWF5.

IV Key issues of Topic 2.3. Water and Food for ending poverty and hunger

With respect to the selected Themes and Topics, the goal of the WWF5 was not to cover all aspects related to water but to identify a set of key aspects on which the Consortium Partners feel that some progresses can be made in the course of the WWF5 or seen as the key challenges that need to be addressed in order make progress.

Within the framework of Theme 2 and taking into account the items of the other Topics under this Theme, the guidance given by the organisers as described before, the consultations with the Consortium Partners and Consultation Partners and the discussions during the preparatory meetings for Topic 2.3 the following titles of the four key questions have been agreed upon:

- I How to achieve the required food production to meet the growing demand?*
- II How can food market measures boost rural development and poverty alleviation?*
- III Water for bioenergy or food?*
- IV How can better water management reduce poverty and hunger? A synthesis.*

Points of attention in dealing with the four key questions for Topic 2.3 are summarised in Table IV.1. It is expected that especially during the sessions recommendations with respect to these points will be formulated.

Table IV.1. Points of attention in dealing with the four key questions for Topic 2.3

What is the relevance of the topic in relation to the MDGs in a wide sense (many issues are directly or indirectly relevant to a number of MDGs)?	What goal(s) and what objectives?
Were all dimensions related to the topic initially incorporated in the MDGs? If yes how?	If yes is there anything to be adjusted in the overall MDGs process? If no what would be the suggestions regarding the future of the MDGs?
What are the current key challenges?	What conclusions on monitoring of the processes of interventions and on the achievements (progresses)?
How can MDG implementation be accelerated in the relevant area?	Conclusions on the nature of intervention?
What aspects do we need to consider 'beyond 2015' as the achieving the MDGs will only solve part of the problem?	What conclusions on interventions and investments?

Each key question will be treated in one session. Session I is the introductory session and is scheduled on Wednesday March 18, 14.30 – 19.00 hour in Amphitheatre 4 of SUTLUCE. Sessions II and III are parallel sessions and are both scheduled on Thursday March 19, 8.30 -13.00. Session II will also be conducted in Amphitheatre 4 of SUTLUCE and Session III in Room 3 of the Feshane Halic Hall. Session IV is a plenary session and includes the integration of the previous three sessions. This session is scheduled on Thursday March 19, 14.30 – 16.30 in Amphitheatre 4 of SUTLUCE. This scheduling implies that for the Sessions I, II and III a duration of four hours has been scheduled and for Session IV two hours. The duration and scheduling of the sessions may considered to be fixed. The location may be still subject to change.

At the Theme level, the Theme coordinator has ensured that information has been shared among the topic consortia and that there is consistency among the various Topics. The theme leader has also taken care that too much overlap among the Topics and, in particular, the sessions has been avoided. This has more or less been a continuous process. A Theme Paper will be produced based on the Topic Reports.

V Session plan

V.1 Important reminders

Several important reminders have been formulated by the organisers and the Theme 2 coordinator:

- sessions should aim to provide responses to key questions on contentious or conflicting subjects, raise awareness on new solutions or developments or give the opportunity to discuss issues in order to provide greater consensus.
- sessions should favour exchange (panels, debates, questions and answers and interactive formats) rather than provide static presentations.
- sessions must include different perspectives and associate various stakeholders. Focal points for the various stakeholder groups will be available to assist you in identifying appropriate representatives to associate within your sessions.
- session descriptions should not be elaborate nor detailed, since room should be left for further development as offers of contributions from the wider community are received (through Sept. 30th). Efforts should be made to integrate as many of these proposed contributions as possible.
- sessions proposals will be evaluated essentially according to:

- * if the session is addressing the right question: All titles should ultimately be in the form of a key questions, formulated in a thought-provoking way; a number of subsidiary questions can then be raised;
- * is the session relevant to policy makers and politicians?
- * are the right people in the room – both in terms of stakeholders and the target group?
- * will the session impact thinking, actions and policy? If so, how?
- * is the session likely to interest press – if so, it will be easier to meet the above objectives?
- * what would you anticipate the ultimate impact of the session to be? Does it have a life after the Forum?
- * quality of the proposed preparatory process (timelines, stakeholder participation, links to other conferences & initiatives, building on what’s been done before);
- * quality of anticipated outputs;
- * bringing new voices into the debate;
- * what is being bridged?
- * quality of presentation

Important dates are shown in Table V.1. Entities, tasks, linkages and products directly related to the Topic coordination of the 5th World Water Forum are shown in Table V.2. The programme of the forum week is shown in Table V.3. This programme may still be subject to minor changes

Table V.1. Important dates for the preparation of Topic 2.3

Time	Task/objectives
10 February 2009	Topic Report
16 – 22 March 2009	5 th World Water Forum, Istanbul, Turkey
Mid April	Draft Synthesis Report to Consortium Partners and Consultation Partners for their review and comments
Mid May	Deadline for receipt of comments on the Draft Synthesis Report
End of May 2008	Submission of Synthesis Report to Theme 2 Coordinator

Table V.2. Entities, tasks, linkages and products directly related to the Topic coordination of the 5th World Water Forum

ENTITY	SPECIFIC TASKS	LINKAGES FOR OVERALL COHERENCE	PRODUCTS
Thematic Coordinator	<p>Ensure the quality of the development for the entire theme by providing guidance to Topic Coordinators and harmonizing their proposals, in particular with regard to overlaps, underlaps and repetitions; ensures that divides are being bridged</p> <p>Identify main messages and policy recommendations for the Theme; ensure introduction and conclusion for theme</p> <p>Ensure wide-ranging representation and balance for topic consortia, consultation groups and within sessions</p> <p>Identify input from other important international events related to their theme and identify events after the Forum where the results and recommendations emanating from their work can be presented</p> <p>Finalize the session plan for sessions within the theme</p> <p>Monitor progress: arrange meetings and teleconferences</p> <p>1 representative to participate in PrepCom I and II of the Political Process (to be confirmed)</p> <p>Contribute to the reporting and synthesis process</p> <p>Disseminate Forum information through their own networks</p>	<p>Ensure coherence among topics and sessions</p> <p>Ensure linkage with political and regional processes</p>	<p>Main messages on theme for communication purposes</p> <p>Thematic policy recommendations for input into the Political Process through the PrepCom meetings</p> <p>Overall theme synthesis</p>
Topic Coordinator	<p>Full responsibility for topic development, working closely with the Thematic Coordinators to ensure harmony with other topics within the Theme</p> <p>Prepare a topic report as a point of departure, which will evolve over time into the synthesis for the topic</p> <p>Define key questions to be answered</p> <p>Ensure the quality of the development for the topic by providing guidance to session conveners and contributors and harmonizing their session proposals, in particular with regard to overlaps, underlaps and repetitions</p> <p>Ensure wide-ranging representation and balance for topic consortia, consultation groups and within sessions</p> <p>Integrate suggestions for contributions into topic work</p> <p>Identify input from other important international events related to their topic and identify events after the Forum where the results and recommendations emanating from their work can be presented</p> <p>Finalize the session plan for the topic and submit to Thematic Coordinators for review</p> <p>Identify key dates for verification of overall progress on topic: arrange meetings and teleconferences when necessary and convenient</p> <p>Contribute to the reporting and synthesis process</p> <p>Maintain working area on Virtual Meeting Space</p> <p>Disseminate Forum information through their own networks</p>	<p>Ensure that the sessions respond to the essential topic issues and key questions</p>	<p>4-5 page topic scoping paper; review of pertinent questions</p> <p>Contribution to the synthesis and messages on the topic in the form of a Topic Report (10-20 pages) and Executive Summary/Recommendations</p>

Session Convener	<p>Involve key organisations in the preparation of session</p> <p>Moderate debate/discussion</p> <p>Participate in Virtual Meeting Space</p> <p>Identify pertinent case studies and examples for presentation</p> <p>Disseminate Forum information through their own networks</p> <p>Ensure that answers to the key questions are supplied.</p>	<p>Ensure the key elements of the debate are identified and that the appropriate individuals can provide some elements of response</p> <p>Ensure linkage with regional processes</p>	<p>Session and related events</p> <p>Session reference document</p> <p>Case studies description</p> <p>Final session report and summary page/ recommendations</p>
Consortium	<p>This is a group of individuals that works closely with Coordinators to assist in carrying out specific tasks. They are 'doers.'</p>		
Consultative Group	<p>This is a group of individuals that is consulted on outputs in order to collect wider points of view and encourage evolution in the thought processes. They provide comments.</p>		

V.2 *Session I. How to achieve the required food production to meet the growing demand?*

Type of session: parallel
Duration: 4 hours

Proposed session officers:

- convenor: International Water Management Institute (IWMI) - Colin Chartres
- co-convenor: International Centre for Agricultural Research in the Dry Areas (ICARDA) - Theib Y. Oweis
- moderator: Scientific Information Centre of Interstate Coordination Water Commission (SIC ICWC) - Prof. Victor Dukhovny
- reporter: International Commission on Irrigation and Drainage (ICID) - S.A. Kulkarni

Context

Importance of the key question as formulated underneath:

- globally water is not limiting for agriculture. But heterogeneity prevails and some countries will increasingly face water scarcity. Future needs of water for food are huge and up-to-date water management systems will be required at a large scale. Water management includes the full range of options - from in-field rainwater harvesting to full-scale irrigation;
- external factors, like: impacts of bio-fuel (also called agro-fuel) products, climate changes, virtual water trade, changes in agri market and the price of commodities have a strong influence on the engine of agriculture activities. Such changes will require additional adaptations in the development of water management measures to ensure global food production - duplication in 25 - 30 years - and to reduce the probability of a severe crisis in the coming years;
- modernization of agricultural water management (technical, management, financial, environmental) will be required at a large-scale, especially in emerging countries, to achieve the required increase in food production, also in some cases to save water for other uses, and in other cases to save money to develop further the water resource;
- the demand for production cannot be met with the existing structure and anticipated trends in irrigated and rainfed food production, this need to change significantly, at national regional and global levels. The optimal mix of small-scale and large-scale water management systems under prevailing and expected future conditions will have to be identified.

Key issues:

- how to bridge between agricultural and water policies to avoid both global and local food crises?
- how can institutional and technical water management improvements contribute to the required increase in food production?
- what types of investments are necessary to develop additional water resources including non conventional and to modernize existing irrigation and drainage schemes to improve water productivity?
- how can rainfed agriculture contribute more effectively, while maintaining irrigated agriculture, to enhance food security and improve livelihoods in rural areas?
- what policies and actions are needed to ensure the sustainability of water resources and the river basin services that underpin the increases in agricultural productivity that must be achieved?

Session format Session I. *How to achieve the required food production to meet the growing demand?*

Date/time	Wednesday March 18, 2009, 14:30 – 19:00 hour	
Location	Amphitheatre 4 of SUTLUCE	
TIME	ITEM	SPEAKER/ACTOR
14.30 – 14.35	Opening and welcome	Convenor: Dr. Colin Chartres International Water Management Institute (IWMI)
14.35 – 14.50	Introduction to Topic 2.3, the Topic Report and the sessions of Topic 2.3	Topic coordinator: Henri Tardieu
14.50 – 15.05	Questions for clarification	Topic coordinators: Henri Tardieu/Bart Schultz
15.05 – 15.20	Introduction to session I. <i>How to achieve the required food production to meet the growing demand?</i>	Co-convenor: Theib Y. Oweis. International Centre for Agricultural Research in the Dry Areas (ICARDA)
15.20 - 15.50	<ul style="list-style-type: none"> • Latest FAO projections on irrigation in 2050 • Country Policy Support Programme (CPSP) 	<ul style="list-style-type: none"> • Jean-Marc Faurès - Food and Agriculture Organisation (FAO) • M. Gopalakrishnan - International Commission on Irrigation and Drainage (ICID)
15.50 - 16.40	Panel discussion with the audience, based on written questions	<p>Panel members:</p> <ul style="list-style-type: none"> • Gender and Water Alliance – Ms. Esther de Jong • Agriculture and Agri-Food Canada – Laurie Tollefson • National Integrated Water Resources Management Commission - I.K. Musa • Veolia Water – Boris David • Arab Water Council – Safwat Abdel Dayem • International Federation of Agricultural Producers (IFAP) – Ajay Vashee • International Union for Conservation of Nature (IUCN) – Ganesh Pangare • Moderator: Prof. Victor Dukhovny. Scientific Information Centre of Interstate Coordination Water Commission (SIC ICWC)
16.40 – 17.10	Break	
17.10 – 17.50	<ul style="list-style-type: none"> • Keynote on the situation in India and the approach of the Indian Government • reactions on key question I of the Topic Report: <i>How to achieve the required food production to meet the growing demand?</i> 	<ul style="list-style-type: none"> • Government of India – Central Water Commission – A.K.Bajaj • Ministry of Jihad-Agriculture, Islamic Republic of Iran - Prof. Zieaoddin Shoaie • Institute of Water Resources and Hydropower Research (IWHR), China – Wang Mingna • Urban Agriculture Network - Jac Smit • Rubicon Systems Australia – Anthony Oakes • International Centre for Advanced Agronomic Studies (CIHEAM) Mediterranean Agronomic Institute of Bari (IAMB) - Atef Hamdy • Israel Export & International Cooperation Institute - Ms. Ronit Golovaty • International Water Management Institute (IWMI) – David Molden • Institute for Agriculture and Trade Policy – Ms. Shiney Varghese
17.50 – 18.10	Video on the modernization of the Prey Nup Polder in Cambodia	Agence Française de Développement
18.10 – 18.30	Draft formulation of recommendations on the key question I	Reporter: S.A. Kulkarni
18.30 – 19.00	Discussion on the recommendations	Convenor: Dr. Colin Chartres

Organizations to be involved in the development of Session I

TYPE OF ORGANISATION	NAME OF ORGANISATION
Farmer Associations	International Federation of Agricultural Producers (IFAP)
International Agencies: UN Agencies	Food and Agriculture Organization of the United Nations (FAO)
Other Institutions	Gender and Water Alliance
	Israel Export & International Cooperation Institute
	Winrock International
National Governments	Agriculture and Agri-Food Canada
	Central Water Commission, India
	National Integrated Water Resources Management Commission, Nigeria
	Ministry of Jihad-Agriculture, Islamic Republic of Iran
Association(s) of agricultural producers	AVRDC-The World Vegetable Centre
Professional Associations	International Commission on Irrigation and Drainage (ICID)
Research Institutions	Eawag - The Swiss Federal Institute of Aquatic Science and Technology
	International Centre for Agricultural Research in the Dry Areas (ICARDA)
	Institute of Water Resources and Hydropower Research (IWHR)
	International Water Management Institute (IWMI)
	International Livestock Research Institute (ILRI)
	Scientific Information Centre of Interstate Coordination Water Commission (SIC ICWC)
Environmental agencies / NGOs	Institute for Agriculture and Trade Policy
Universities	International Union for Conservation of Nature (IUCN)
	International Centre for Advanced Agronomic Studies (CIHEAM)
	Mediterranean Agronomic Institute of Bari (IAMB)
Private sector	Rubicon Systems Australia Pty. Ltd
	Veolia Water
Regional Organization	Arab Water Council
	Urban Agriculture Network

V.3 Session II. How can food market measures boost rural development and poverty alleviation?

Type of session: parallel

Duration: 4 hours

Proposed session officers:

- convenor: International Fund for Agricultural Development (IFAD) – Rudolph Cleveringa
- co-convenor: UNESCO-IHE – Krishna Prasad
- moderator: Ecoagriculture Partners (EP) - Thomas Oberthur
- reporter: Ministry of Water Resources, Ethiopia – Teshome Atnafie Guyo

Context

Importance of the key question as formulated underneath:

- most of the poverty exists in rural areas in emerging and least developed countries. Increase in food prices can contribute to reduction of poverty in rural areas in these countries, provided that poor farmers reach such a level of production that they can sell a substantial part of their yield at a feasible price and they retain land and water rights;
- before examining the relation between water and agriculture, it is fundamental to understand the dynamics of agriculture development that are related to population dynamics especially between rural areas and urban areas in emerging countries, and low agricultural productivity in least developed countries. It is also fundamental to understand the processes of agrarian change, and changing access to water and land;
- the demand for production cannot be met with the existing structure and anticipated trends in

irrigated and rainfed production. This need to change significantly, at national, regional and global levels. The optimal mix of small-scale and large-scale systems under prevailing and expected future conditions will have to be identified;

- most least developed countries have sufficient resources to be food self sufficient, but local markets are almost inexistent and do not allow a proper local food economy.

Key issues:

- how can poor farmers benefit from market opportunities and how to improve the marketing chain?
- how can local markets be strengthened e.g. by capacity building and farmer empowerment (including micro-financing) consistent with trade?
- how can new agricultural market opportunities help in financing improved water productivity and services?

Session format Session II *How can food market measures boost rural development and poverty alleviation?*

Date/time	Thursday March 19, 2009, 8:30 – 13:00 hour	
Location	Amphitheatre 4 of SUTLUCE	
TIME	ITEM	SPEAKER/ ACTOR
8.30 – 8.35	Opening and welcome	Convenor: Rudolph Cleveringa, International Fund for Agricultural Development (IFAD)
8.35 - 8.50	Introduction to session II and the Topic Report	Co-convenor: Krishna Prasad, UNESCO-IHE
8.50 - 9.20	<ul style="list-style-type: none"> • Water and the rural poor in Sub-Saharan Africa: a business case to reduce rural poverty through targeted investments in agricultural water • The livelihoods-water-market nexus: a framework to address: Threat or Opportunity: Can the current crises benefit poor smallholder farmers, or not? 	<p>Jean-Marc Faures - FAO.</p> <p>Rudolph Cleveringa – IFAD - and Thomas Obertur – EP</p>
9.20 - 10.00	<ul style="list-style-type: none"> • Financial Assets: Opportunities? • Human Assets: Opportunities? 	<p>Panel members:</p> <ul style="list-style-type: none"> • SNS Reaal Bank - Kajetan Hetzer and Munich Re Foundation - Dirk Reinhart • Kenyan Federation of Agricultural Producers - M. Matunga and Gender and Water Alliance - Joke Muylwijk • Moderator: Thomas Oberthur - Ecoagriculture Partners (EP)
10.00 – 10.30	Break	
10.30 – 11.30	<ul style="list-style-type: none"> • Social Assets: Opportunities? • Productive Assets: Opportunities? • Natural Assets: Opportunities? 	<p>Panel members:</p> <ul style="list-style-type: none"> • International Foundation for Organic Agriculture (IFOAM) - Ramazan Ayam and/or Wageningen University - Ms. Catrien Termeer and Watershed Organisation Trust (WOTR) - Crispino Lobo • United Nations University (UNU) - Janos Bogardi and WIN and FAO - Jean-Marc Faures • EcoTrust - Ms. Pauline Nantongo and Munich Re Foundation - Dirk Reinhart • Moderator: Thomas Oberthur - Ecoagriculture Partners (EP)
11.30 - 11.50	Draft formulation of recommendations and key messages from the above	Reporter Teshome Atnafie Guyo - Ministry of Water Resources, Ethiopia

	interventions	
11.50 – 12.25	Reactions on key question II of the Topic Report: <i>How can food market measures boost rural development and poverty alleviation?</i>	<ul style="list-style-type: none"> • International Development Enterprises (IDE) – Sue Drummond Haley • Water sector project, Bangladesh – Md. Moshir Rahman • Interstate Coordination Water Commission of Central Asia (SIC ICWC) – Mr. Pulat Umarov • Centre for Environmental and Geographic Information Services (CEGIS) – Giasuddin Ahmed Choudhary • Department of Water Affairs and Forestry (DWAF), South Africa - Kalinga Pelpola
12.25 – 13.00	Discussion on the recommendations and panellists feedback	Convenor: Rudolph Cleveringa

Organizations to be involved the development of Session II

TYPE OF ORGANISATION	NAME OF ORGANISATION
International Agencies: UN	International Fund for Agricultural Development (IFAD)
Agencies	International Development Enterprises (IDE)
Other Institutions	Centre for built environment (CBE)
	Water sector project, Bangladesh
National Governments	Department of Water Affairs and Forestry (DWAF), South Africa
Ass. of Agricultural Producers	Kenyan Federation of Agricultural Producers
Professional Associations	International Foundation for Organic Agriculture (IFOAM)
Research Institutions	International Commission on Irrigation and Drainage (ICID)
	Center for Environmental and Geographic Information Services (CEGIS)
Environmental agencies / NGOs	Ecoagriculture Partners (EP)
	Watershed Organisation Trust (WOTR)
Universities	UNESCO-IHE
	Wageningen University
	United Nations University (UNU)
Private sector	SNS Reaal Bank
	Munich Re
	Eco Trust

V.4 Session III. Water for bioenergy or food?

Type of session: parallel
Duration: 4 hours

Proposed session officers:

- convenor: Consortium of Indian Farmers Associations (CIFA) – Akkineni Bhavani Prasad
- co-convenor: International Union for Conservation of Nature (IUCN) – Mark Smith
- moderator: Food and Agriculture Organization of the United Nations (FAO) – Jippe Hoogeveen
- reporter: Ms. Isobel van der Stoep, South Africa

Context

Importance of the key question as formulated underneath:

- will bio-fuels provide least developed countries and poor farmers with new opportunities for employment to improve their economy and livelihoods?
- bio-fuels will raise the food prices - the poor will be the first affected?

- bio-fuels are detrimental for the environment?
- bio-fuels production will increase the stress on land and water resources.

Key issues:

- how can rural communities benefit from bioenergy crops?
- how to avoid conflict with food production by considering reversible crops from non-food to food production, and using marginal water and land?
- how to develop farming practices compatible with nature balance, increasing the resilience of rural poor and ecosystems on which they depend?
- what may be the implications of bio-fuels policies and trends for the water resources, availability and allocation among uses (including by ecosystems) and thus on ecosystems and livelihoods?
- can bio-fuel plantations give a sustainable income to the small and marginal farmers?
- can bio-fuel prices be not affected from the impact of changing prices of fossil fuels?
- is there any opportunity to grow bio-fuel plantations on saline, fallow lands?

Session format *Session III Water for bioenergy or food?*

Date/time	Thursday March 19, 2009, 8:30 – 13:00 hour	
Location	Room 3 of the Feshane Halic Hall	
TIME	ITEM	SPEAKER/ ACTOR
8.30 – 8.40	Opening and welcome	Convenor: Akkineni Bhavani Prasad, Consortium of Indian Farmers Association (CIFA)
8.40 - 8.55	Introduction to session III and the Topic Report	Co-convenor: International Union for Conservation of Nature (IUCN) – Ms. Nadine McCormick
8.55 - 9.05	Presentation by the Brazilian Water Agency (ANA)	Antonio Felix Domingues
9.05 – 10.30	First panel discussion - focus on policies and strategies with respect to bioenergy, food production and water management - with the audience, based on written questions	Panel members: <ul style="list-style-type: none"> • International Fund for Agricultural Development (IFAD) – Vineet Raswant • Food and Agriculture Organisation (FAO) – Alexander Müller • French Water Partnership (FWP) – Ms. Nathalie Chartier-Touze • Roundtable on Sustainable Biofuels (RSB) – Ms. Nadine McCormick • Brazilian Water Agency (ANA) – Antonio Felix Domingues • Moderator: Jippe Hoogeveen, Food and Agriculture Organization of the United Nations (FAO)
10.30 – 11.00	Break	
11.00 – 12.00	Second panel discussion - focus on implementation and impacts of bioenergy, food production and water management - with the audience, based on written questions	Panel members: <ul style="list-style-type: none"> • Institute for Civil Service's Training and Education, Ministry of Public Works - A. Hafied A. Gany • Association Française pour l'Eau, Irrigation et le Drainage (AFEID) – Henri Tardieu • Brazilian Reference Centre on Biomass - Jose Moreira • World Bioenergy Association (WBA) – Kent Nystrom • National African Farmers Union, South Africa - Khamarunga Banda • Moderator: Jippe Hoogeveen, Food and Agriculture Organization of the United Nations (FAO)
12.00 – 12.15	Intermezzo	Ideas are welcome
12.15 – 12.30	Draft formulation of recommendations on the key question III	Reporter: Ms. Isobel van der Stoep

12.30 – 13.00	Discussion on the recommendations	Convenor: Akkineni Bhavani Prasad
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Organizations to be involved the development of Session III

TYPE OF ORGANISATION	NAME OF ORGANISATION
Farmers Associations	Consortium of Indian Farmers Association (CIFA) National African Farmers Union, South Africa
International Agencies: UN Agencies	Food and Agriculture Organization of the United Nations (FAO) International Fund for Agricultural Development (IFAD)
Other Institutions	French Water Partnership
National Government	Institute for Civil Service's Training and Education, Ministry of Public Works Brazilian Water Agency (ANA)
Association(s) of agricultural producers	Consortium of Indian Farmers Associations (CIFA) Brazilian Reference Centre on Biomass
Professional Associations	International Commission on Irrigation and Drainage (ICID) World Bioenergy Association (WBA) Association Française pour l'Eau, Irrigation et le Drainage (AFEID) International Food Policy Research Institute (IFPRI)
Research Institutions	International Union for Conservation of Nature (IUCN)
Environmental agencies / NGOs	Roundtable on Sustainable Biofuels (RSB)

V.5 Session IV. How can better water management reduce poverty and hunger? A synthesis.

Type of session: plenary
Duration: 2 hours

Proposed session officers:

- convenor: International Commission on Irrigation and Drainage (ICID)/Mc Gill University – Chandra Madramootoo
- co-convenor: CGIAR Challenge Program on Water and Food (CGIAR CPWF) – Jonathan Woolley
- moderator: Khalid Mohtadullah
- reporter: One of the reporters of Session I (representative Arab Water Council), II (Teshome Atnafie Guyo), or III (K.N. Sharma)

Context

Importance of the key question as formulated underneath:

- the trend of increasing food prices on the world market necessitates far reaching interventions and investments to prevent under-nourishment, especially for the urban poor and the (landless) rural poor in the least developed countries. These increasing prices also need to reach the smallest farmers and bring profitable agriculture to them;
- the increase in food prices will result in higher production levels per unit area, especially in emerging countries, which will result in food production such that under-nourishment can be substantially reduced;
- the required global increase in food production needs to be achieved in a sustainable and equitable way, such that environments remain stable and small producers, particularly women, retain access to water and land resources;
- the on-going decline in the global food stock of cereals will have to be reversed by far reaching interventions and investments to promote food production in emerging and least developed countries.

Key issues:

- how to reconcile agricultural and water policies to avoid both global and local food crises?
- how can institutional and technical water management improvements and investments contribute to increase the food production?
- how can scientific findings more effectively be transferred to practical technologies, especially supporting the poor farmers?
- how can poor farmers, specially women, benefit from market opportunities?
- how can local developments benefit from bioenergy?

Session format Session IV *How can better water management reduce poverty and hunger? A synthesis.*

Date/time	Thursday March 19, 2009, 14:30 – 16:30 hour	
Location	Amphitheatre 4 of SUTLUCE	
TIME	ITEM	SPEAKER/ ACTOR
14.30 – 14.35	Opening and welcome	Convenor: Prof. Chandra Madramootoo, International Commission on Irrigation and Drainage (ICID)/Mc Gill University
14.35 - 14.45	Introduction to session IV and the Topic Report	Co-convenor: Jonathan Woolley, CGIAR Challenge Program on Water and Food (CGIAR CPWF)
14.45 - 15.00	Presentation on Key question IV <i>How can better water management reduce poverty and hunger? A synthesis</i>	Keynote speaker: H.E. Mahmoud Abu Zeid, Egypt
15.00 – 15.30	Presentations on the recommendations of Sessions I, II and III	<ul style="list-style-type: none"> • reporter of Session I Representative Arab Water Council • reporter of Session II Teshome Atnafie Guyo • reporter of Session III K.N.Sharma
15.30 - 16.00	Panel discussion with the audience, based on written questions with respect to the recommendations and the Topic Report	Panel members: <ul style="list-style-type: none"> • FAO, Land and Water Division – Parviz Koohafkan • CGIAR Challenge Program on Water and Food (CGIAR CPWF) – Ms. Annette Huber Lee • French Water Partnership – Henri Tardieu • University of Melbourne – Hector Malano • Ministry of Water Resources China – Mr. Wang Xiaodong • General Council of Agricultural Development, Morocco – Mohamed Ait-Kadi • Moderator: Khalid Mohtadullah, Pakistan
16.00 – 16.15	Presentation of draft overall recommendations	Representative of reporters
16.15 – 16.25	Short discussion on key issues	Chairman: Chandra Madramootoo
16.25 – 16.30	Closing	Chairman: Chandra Madramootoo

Organizations to be involved in the development of Session IV

TYPE OF ORGANISATION	NAME OF ORGANISATION
International Agencies: UN Agencies	Food and Agriculture Organization of the United Nations (FAO)
Other Institutions	French Water Partnership Winrock International
National Governments	Ministry of Water Resources and Irrigation, Egypt Ministry of Water Resources, Ethiopia
Professional Associations	International Commission on Irrigation and Drainage (ICID)
Research Institutions	CGIAR Challenge Program on Water and Food (CGIAR CPWF)
Universities	McGill University University of Melbourne
Private sector	Mark Svendsen

VI. Proposed steps until and after WWF5

The proposed steps until and after WWF5 were summarized in Table V.1. These steps were partly formulated by the organizers and partly by the topic coordinator.

This Session Situation Document has been circulated among the Consortium Partners, Consultation Partners and others who have shown an interest in the topic. The document can be downloaded from the web sites of ICID: www.icid.org and of the Forum organisers: www.worldwaterforum5.org, as well as from the Virtual Meeting Space (VMS) that has been created for the Forum.

ANNEX I. Consortium and Partners and Consultation Partners of Topic 2.3 of WWF5 and their specific interest

<i>Coordinator: International Commission on Irrigation and Drainage (ICID)</i>						
Type of organisation	Organisation	Contact person	Session I	Session II	Session III	Session IV
			<i>How to achieve the required food production to meet the growing demand?</i>	<i>How can food market measures boost rural development and poverty alleviation?</i>	<i>Water for bioenergy or food?</i>	<i>How can better water management reduce poverty and hunger? A synthesis.</i>
Farmer Associations	International Federation of Agricultural Producers (IFAP)	David King/Ajay Vashee				
	Consortium of Indian Farmers Association (CIFA)	Akkineni Bhavani Prasad			X	
	National African Farmers Union, South Africa,	Khamarunga Banda			X	
International Agencies/ UN Agencies	Food and Agriculture Organization of the United Nations (FAO)	Mr Parviz Koochafkan/ Dr. Pasquale Steduto/ Alexander Müller/ Jean-Marc Faurès	X	X	X	X
	International Fund for Agricultural Development (IFAD)	R. Cleveringa/A. Nepreu/ Vineet Raswant	X	X	X	X
Other Institutions	Gender & Water Alliance	Joke Muylwijk				
	French Water Partnership (FWP)	Nathalie Chartier-Touzé			X	X
	Israel Export & International Cooperation Institute	Ms. Ronit Golovaty				X
	Winrock International	Mary Renwick				
	International Development Enterprises (IDE)	Ms. Sue Drummond Haley		X		
	Centre for built environment (CBE)	Ruhul Gupta		X		
National Government	Agriculture and Agri-Food Canada	Laurie Tollefson	X			X
	Water sector project, Bangladesh	Md. Moshir Rahman		X		
	Ministry of Jihad-Agriculture, Iran	Mr. Zieaoddin Shoaie, Mr. Allaei and Mr. Parastar				
	Ministry of Water Resources, China	Mr. Wang Xiaodong				
	Central Water Commission, India	A.K. Bajaj	X			
	Brazilian Water Agency (ANA)	Ben Braga, Antonio Felix Domingues			X	
	Ministry of Transport, Public Works and Water Management - Rijkswaterstaat	Bart Schultz	X	X	X	X
Ass. of agricultural producers	The World Vegetable Centre (AVRDC)	Madhusudan Bhattarai	X	X		X
	Brazilian Reference Centre on Biomass	Jose Moreira			X	
	International Foundation for Organic Agriculture (IFOAM)	Ramazan Ayam		X		
Professional Associations	International Commission on Irrigation and Drainage (ICID)	Bart Schultz/ M. Gopalakrishnan	X	X	X	X
	International Hydropower Association (IHA)	Richard Taylor/Michael Vink			X	
	World Bioenergy Association (WBA)	Kent Nystrom				
	Association Française pour l'Eau, Irrigation et le Drainage (AFEID)	Henri Tardieu	X	X	X	X

Research Institutions	International Center for Agricultural Research in the Dry Areas (ICARDA)	Theib Y. Oweis	X			X
	Scientific Information Center of Interstate Coordination Water Commission (SIC ICWC)	Victor A. Dukhovny/Umarov	X			
	International Water Management Institute (IWMI)	Colin J. Chartres/ Barbara van Koppen/Makonnen Loulseged/ David Molden	X			X
	International Food Policy Research Institute (IFPRI)	Dr. Claudia Ringler			X	
	CGIAR Challenge Program on Water and Food (CGIAR CPWF)	Jonathan Woolley/Annette Huber/Simon Cook	X			X
	Institute of Water Conservancy and Hydropower research (IWHR)	Wang Mingna				
	Institute for Agriculture and Trade Policy	Ms. Shiney Varghese	X			X
Environmental agencies / NGO	International Union for Conservation of Nature (IUCN)	Mark Smith/Katharine Cross/Ganesh Pangare/Nadine McCormick	X		X	
	Ecoagriculture Partners (EP)	Thomas Oberthur		X		
	Roundtable on Sustainable Biofuels (RSB)	Andrea Athanas			X	
	Watershed Organisation Trust (WOTR)	Crispino Lobo		X		
Universities	UNESCO-IHE	K. Prasad	X			X
	CIHEAM/ Bari	Prof. Atef Hamdy	X			X
	University of Melbourne	Prof. Hector Malano				X
	United Nations University (UNU)	Janos Bogardi		X		
	Wageningen University	Ms. Catrien Termeer		X		
Private sector	Veolia Water	Boris David	X			
	Rubicon Systems Australia Pty.Ltd.	Tugba Erol/Anthony Oakes				
	Irrigation advisor	Mark Svendsen				X
	SNS Reaal Bank	Kajetan Hetzer		X		
	Munich Re Foundation	Dirk Reinhart		X		
	EcoTrust	Ms. Pauline Nantongo		X		
Regional Organizations	Arab Water Council	Safwat Abdel-Dayem	X			X
	Centre for Environment & Development for the Arab Region & Europe (CEDARE)	Omar Elbadaw				

Overview of interest shown by Consultation Partners on Topic 2.3						
Type of organisation	Organisation	Contact person	Session 1	Session 2	Session 3	Session 4
			<i>How to achieve the required food production to meet the growing demand?</i>	<i>How can food market measures boost rural development and poverty alleviation?</i>	<i>Water for bioenergy or food?</i>	<i>How can better water management reduce poverty and hunger? A synthesis.</i>
Other Institutions	Arab Organisation for Agricultural Development	Dr. Salem Al-Lozi				X
	Independent Community Bankers of America (ICBA)	Camden R. Fine	X			
	International Network for Water and Ecosystem in Paddy Fields (INWEPF)	Yasuhisa Kayama				
National Government	National Integrated Water Resources Management Commission, Nigeria	I.K. Musa				
	Ministry of Water Resources, Ethiopia	Teshome Atnafie Guyo				
	Ministry of Public Works, Indonesia	Hafid Gani				
Multilateral donors	Asian Development Bank (ADB)	Thomas Panella				
	Islamic Development Bank (ISDB)	Intizar Hussain				
Trade organizations	Sustainable Agriculture Initiative (SAI)	Peter Erik Ywema				
Professional Associations	International Commission on Large Dams (ICOLD)	Dr. Luis Berga				
Foundations	Gates Foundation	Ms. Melissa Ho				
Research Institutions	Center for Environmental and Geographic Information Services (CEGIS), Bangladesh	Giasuddin Ahmed Choudhury				
	Eawag - The Swiss Federal Institute of Aquatic Science and Technology	Jafet Andersson				
Universities	Wageningen University	Prof. Wim Cofino				
	UC-Davis Agricultural and Resource Economics	Allen Summer				
Local civil society	Japan Water Forum	Dr. Taeko Yokota				
Regional Organisations	Urban Agriculture Network	Jac Smit				
Forum Organisers	World Water Council	Daniele Gaillard				
	Devlet Su Isleri Genel Mudurlugu (DSI)	Dr. Dünya Su Forumu				
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Secretary General						
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ANNEX II. References

- Bhattarai, M. and A. Narayanamoorthy, 2003. Impact of irrigation on rural poverty in India: an aggregate panel-data analysis. *Water Policy* 5.
- Bhattarai, M., R. Barker and A. Narayanamoorthy, 2007. Who benefits from irrigation development in India? Implication of irrigation multipliers for irrigation financing. *Irrigation and Drainage*, vol. 56, issue 2+3.
- Bhattarai, M., R. Sakthivadivel and Intizar Hussain, 2002. Irrigation Impacts on Income Inequality and Poverty Alleviation. Working paper 39. International Water Management Institute (IWMI), Colombo, Sri Lanka
- Food and Agriculture Organization of the United Nations (FAO). 2006. The State of Food Insecurity in the World, available at: http://www.wfp.org/aboutwfp/facts/hunger_facts.asp
- Hasnip, N, L. Vincent and K. Hussain. Poverty alleviation and irrigated agriculture. IPTRID Paper 1. Rome: FAO.
- Huppert W. 2006. Uncertainty and water governance. The 'moral hazard problem' in irrigation. In: Seminar 6 Water governance for Africa. University of Bradford, available at: Hussain. I. and Hanjra, M. Irrigation and poverty alleviation: a review of the evidence. *Irrigation and Drainage* 53:1-15
- Hofwegen, P.J.M. van and M. Svendsen, 2000. A vision of water for food and rural development, The Hague, The Netherlands.
- International Commission on Irrigation and Drainage (ICID), 2004, Updated statistics on irrigation and drainage in the world, New Delhi, India.
- International Commission on Irrigation and Drainage (ICID), 2008. Topical issues paper Topic 2.3. Water and Food for ending poverty and hunger, revised version. Prepared in consultation with various experts from different (international) organisations. 3 February 2008, New Delhi, India
- International Commission on Irrigation and Drainage (ICID), 2008. Draft Discussion note Topic 2.3. Water and Food for ending poverty and hunger. Prepared by Henri Tardieu and Bart Schultz. 25 May 2008, New Delhi, India
- International Commission on Irrigation and Drainage (ICID), 2008. Draft Topic Scoping Paper and Session Plan Topic 2.3. Water and Food for ending poverty and hunger. Prepared by Henri Tardieu and Bart Schultz. 15 August 2008, New Delhi, India
- International Commission on Irrigation and Drainage (ICID), 2008. Revised Draft Session Plan Topic 2.3. Water and Food for ending poverty and hunger. Prepared by Henri Tardieu and Bart Schultz. 5 October 2008, New Delhi, India
- International Commission on Irrigation and Drainage (ICID), 2008. Revised Draft Topic Scoping Paper Topic 2.3. Water and Food for ending poverty and hunger. Prepared by Henri Tardieu and Bart Schultz. Versions 5 and 18 October 2008, New Delhi, India
- International Commission on Irrigation and Drainage (ICID), 2009. Topic Report Topic 2.3. Water and Food for ending poverty and hunger. Prepared by Henri Tardieu and Bart Schultz. 10 February 2009, New Delhi, India
- International Water Management Institute (IWMI), 2007. Water for Food, Water for Life: The Comprehensive Assessment of Water Management in Agriculture. Colombo, Sri Lanka.
- Irrigation and Drainage, 2007. Special Issue on Irrigation and Poverty Alleviation: pro poor interventions in irrigated agriculture. Guest editor: Intizar Hussain, vol . 56, issue 2+3.
- Musa, I.K., 2008. Priority issues of least developed countries in Africa. *Irrigation and Drainage*. Special Issue on Water for food and poverty alleviation.
- Perry, C., 2007. Efficient irrigation; inefficient communication; flawed recommendations. *Irrigation and Drainage*. Volume 56, no. 4.
- Plusquellec, H., 2002. Is the daunting challenge of irrigation achievable?. *Irrigation and Drainage*, vol. 51, no. 3, 2002.
- Schultz, E., 2003. Irrigation and drainage. Present and potential role in food production and sustainable rural development. In: Proceedings Water Week, The World Bank, 4 - 6 March, 2003, Washington, USA.
- Schultz, Bart, C.D. Thatte and V.K. Labhsetwar, Irrigation and drainage. Main contributors to global food production. *Irrigation and Drainage* 54.3, 2005.
- Schultz, Bart, Henri Tardieu and Alain Vidal, 2009. Role of water management for global food production and poverty alleviation. *Irrigation and Drainage*. Special Issue on Water for food and poverty alleviation.
- Tardieu, H. and B. Préfol, 2002. Full cost or 'sustainability cost' pricing in irrigated agriculture. Charging for water can be effective, but is it sufficient?, *Irrigation and Drainage*, vol. 51 no. 2.
- Tardieu, H. (ed.), 2004. Irrigation and drainage services. Some principles and issues towards sustainability. A position paper of ICID. ICID Task Force 3.