

IISD – GWSP Conference on the Water-Energy-Food Security Nexus
May 1 – 4, 2012
Inn at the Forks, Winnipeg, Manitoba



Tuesday, May 1, 2012 – DAY 1 hosted by IISD

8:00 – 9:00 Breakfast

8:30 - 9:00 Registration

9:00 - 9:20 Opening Introductions (Chair: Hank Venema)

Welcoming remarks on behalf of:

- The Province of Manitoba - Minister Gord Mackintosh, Winnipeg
- International Institute for Sustainable Development (IISD) - Bill Glanville, Winnipeg
- Global Water System Project (GWSP) - Janos Bogardi, Germany

Session: Governance Issues and Opportunities (Chair: Bryan Osborne)

9:20 - 9:40 The Vision and Role of IISD in Addressing the Water-Energy-Food Security Nexus for Manitoba and North America (Hank Venema, Winnipeg)

9:40 - 10:00 Bonn +10 and its Recommendations on Water for RIO +20 (Janos Bogardi, Germany)

10:00 - 10:20 How the Governance of Water in Western Canada has Affected the Development of the Agriculture and Energy Sectors (Ted Horbulyk, Calgary)

10:20 - 10:40 Break

10:40 - 11:00 Priority Issues for Water and Food Security (Marc Andreini, Nebraska)

11:00 - 11:20 The Applications of Virtual Water to Managing Water for Food and Energy Security (Singjiro Kanae, Japan)

11:20 - 11:40 Water for Food, Environment and Energy: World Water Scenarios (William Cosgrove, Montreal)

11:40 - 12:00 Transboundary Basins and Natural Resources Management: The Red River Basin Experience (Lance Yohe, Minnesota)

12:00 - 1:10 Lunch Break (lunch not provided)

Session: Governance Issues and Opportunities continued (Chair: Janos Bogardi, Germany)

- 1:10 - 1:30 Where Water Security meets Agricultural Sustainability: Challenges and Opportunities for the 21st Century (Howard Wheeler, Saskatoon)
- 1:30 - 1:50 Climate Change and its Effects on the Water-Energy-Food Nexus (Jim Bruce, Ottawa)
- 1:50 - 2:10 Food Security and Ecological Sustainability: The promise of soft paths (David Brooks, Ottawa)
- 2:10 - 2:30 A Systems Approach to Managing the Water-Energy-Food Nexus in a River Basin (Slobodan Simonovic, London)

Session: Earth Observations (Chair: Bradley Doorn)

- 2:30 - 2:50 Monitoring Needs for Managing Food, Energy and Water Resources (Balazs Fekete, New York)
- 2:50 - 3:10 The Application of Earth Observations in Grain Marketing Decisions (Bruce Burnett, Winnipeg)

3:10 - 3:30 Break

- 3:30 – 3:50 NASA Data Products that Promote Water, Energy and Food Security (Bradley Doorn, Washington, DC)
- 3:50 – 4:10 G20 Global Agricultural Monitoring Initiative (GEOGLAM) (Ian Jarvis, Ottawa)
- 4:10 – 4:30 Evapotranspiration: Monitoring a critical agrometeorological variable (Paul Bullock, Winnipeg)
- 4:30 – 4:50 Soil Moisture Developments in Canada (Catherine Champagne, Ottawa)
- 4:50 – 5:10 National and Global Progress in Drought Monitoring (Al Howard, Regina)
- 5:10 – 5:30 Drought Monitoring in Africa (Gabriel Senay, USGS, South Dakota)
- 5:30 – 5:45 Discussion

5:45 - 7:30 Icebreaker Reception



May 2, 2102 – DAY 2 hosted by IISD

8:00 - 8:30 Coffee/Tea

Session: Towards Integrated Approaches to the Water-Energy-Food Security Nexus

8:30 - 9:00 Integrating World Meteorological Organization (WMO), Group on Earth Observations (GEO) and Environment Canada's Strategies to Maximize the Contributions of Earth Observations for Water-Energy-Food Security (David Grimes, Ottawa)

9:00 - 9:30 Directions for Managing Food and Water in Canada (Ian Jarvis, Ottawa)

9:30 - 10:45 Panel on the Contributions of Earth Observations and Governance to Decision-Making (Panel members: Manitoba Water Stewardship (Rhonda McDougal), Manitoba Hydro (Efrem Teklemariam), NASA (Bradley Doorn), Agriculture and Agri-Food Canada (Ian Jarvis), Chair: David Grimes)

10:45 - 11:15 Break

11:15 - 11:45 Discussion on Recommendations for Action (Discussion Chair: Janos Bogardi, Germany)

11:45 - 12:00 Meeting Summary (Janos Bogardi, Germany; Hank Venema, Winnipeg)

12:00 - 1:30 Lunch

1:30 - 1:50 Introduction to the Bioeconomy Symposium (Hank Venema, Winnipeg)

1:50 - 2:10 Historical Ecosystem Dynamics in the Red-Assiniboine Basin (Pascal Badiou, Winnipeg)

2:10 - 2:30 Climate and Hydrological Forcing of Nutrient Loadings in the Red-Assiniboine Basin (Greg McCullough, Winnipeg)

2:30 - 2:50 Integrating Agricultural with Unconventional Drainage (David Lobb, Winnipeg)

2:50 - 3:10 Observations on Innovation Agricultural Water Management (Bruce Shewfelt, Winnipeg)

3:10 - 3:30 Break

3:30 - 3:50 Considerations for Sustainable Phosphorus Management (Vivek Voora, Winnipeg)

3:50 - 4:10 Adaptive Governance and Policy-making Approaches for the Water-Energy-Food Nexus (Darren Swanson, Winnipeg)



- 4:10 - 4:30 Lessons for Lake Winnipeg from Watershed Management to Limit Lake Kinneret Cyanobacteria Blooms and Phosphorus Loading in Wetlands (Doron Markel, Israel)
- 4:30 - 4:50 Issues and Solutions for Irrigation in Developing Countries (Stuart Taylor, iDE, Winnipeg)
- 4:50 - 5:50 Discussion: Next Steps and Symposium Summary (Hank Venema, Winnipeg)

May 3, 2012 – DAY 3 hosted by GWSP

8:30 - 9:00 Coffee/Tea

8:30 - 9:00 Registration

Session: Background on GWSP and the Water-Energy-Food Initiative (Chair: Rick Lawford, Winnipeg)

- 9:00 - 9:20 Introduction to GWSP (Janos Bogardi, Germany)
- 9:20 - 9:40 Global Scale Initiative Studies in GWSP (Balazs Fekete, New York)
- 9:40 - 10:00 Governance and Water Needs Issues (Claudia Pahl-Wostl, Germany)
- 10:00 - 10:20 Findings of the Global Catchment Initiative Phase I Study (Janos Bogardi, Germany)

10:20 - 10:40 Break

Session: Background on GWSP and the Water-Energy-Food Initiative (Chair: Janos Bogardi, Germany)

- 10:40 - 11:00 Findings of the Twin 2 Go Project (Claudia Pahl-Wostl, Germany)
- 11:00 - 11:20 Introduction to GCI Phase II (Rick Lawford, Winnipeg)
- 11:20 - 11:40 Case Studies of the Implementation of Integrated Water Management (Dimple Roy, Winnipeg)
- 11:40 - 12:00 Public Health and the Flood-Drought Pendulum (Karla Zubrycki, Winnipeg)

12:00 - 1:00 Lunch

Session: Experience with the Water-Energy-Food Initiative in Different Basins (Chair: Claudia Pahl-Wostl, Germany)

- 1:00 - 1:20 Integrating Water and Energy, and Using Renewable Energy and Aquifer Management to Support Food Security (Magdalena AK Muir, Calgary)



- 1:20 - 1:40 Driving Forces of Resource Governance in the Forestry Sector of the Philippines (Herminia C. Tanguilig, Philippines)
- 1:40 - 2:00 The International Joint Commission (IJC) and its role in adapting to Climate Change along the Canada-US border (Jim Bruce, Ottawa)

Basin Case Studies: Europe

- 2:00 - 2:20 Danube Basin (Hans-Peter Nachtnebel, Germany)
- 2:20 - 2:40 Elbe River (Summary by Janos Bogardi, Germany)

Basin Case Studies: Lake Winnipeg (Chair: Hank Venema)

- 2:40 - 3:00 Climate Variability in Western Canada (Ray Garnett, Winnipeg)
- 3:00 - 3:20 Perspectives of Lake Winnipeg Basin, Red River Basin Commission (RRBC) (Lance Yohe, Minnesota)

3:20 - 3:40 Break

- 3:40 - 4:00 Perspectives of the Lake Winnipeg Basin (Alf Warkentin, Winnipeg)
- 4:00 - 4:20 Perspectives of the Saskatchewan River Basin (Al Howard, Regina)
- 4:20 - 4:45 Discussion

May 4, 2012 – DAY 4 hosted by GWSP

8:00 - 8:30 Coffee/Tea

Session: Experience with the Water-Energy-Food Initiative in Different Basins: Introductions to other GCI II Basins (Chair: Dimple Roy, Winnipeg)

- 8:30 - 8:50 Jordan River (Survey Summary by Sina Marx)
- 8:50 - 9:10 The Murray Darling River Basin (Survey Summary by Rick Lawford)
- 9:10 - 9:30 The Amudarya Basin (Survey Summary by Sina Marx)
- 9:30 - 10:00 Chinese Rivers: the Yellow and Huai Rivers (Survey Summary by Sina Marx)



10:00 - 10:20 The Mekong River Basin (Survey Summary by Janos Bogardi)

10:20 - 10:40 Break

Session: Introductions to other GCI II Basins (Chair: Claudia Pahl-Wostl, Germany)

10:40 - 11:00 Issues in Managing Water for Energy and Food Security in Africa (Gabriel Senay, USGS, South Dakota)

11:00 - 11:20 The Okavango Basin (Survey Summary by Rick Lawford, Winnipeg)

11:20 - 11:40 The Volta Basin (Summarized by Marc Andreini, Nebraska (TBC))

11:40 - 12:00 The Incomati Basin (Survey Summary by Sina Marx, Germany)

12:00 - 12:10 Introduction to the Breakout Groups (Rick Lawford, Winnipeg)

12:10 - 1:00 Lunch

Session: Identifying Themes for Further Synthesis as part of GCI II (Chair: Janos Bogardi)

1:00 - 2:30 Breakout Discussions:

- Group 1: Basins in Developed Countries
- Group 2: Basins in Developing Countries

2:30 - 3:10 Plenary Presentations from the Breakout Groups

3:10 - 3:30 Break

3:30 - 4:00 General Discussion on:

- Common issues, themes and solutions arising from case studies
- Ways in which the W-E-F Conference findings inform the case studies and vice versa
- Messages from the Conference and Workshop that should be taken to Rio +20

4:00 - 4:30 Meeting Summary and Concluding Remarks (Rick Lawford, Janos Bogardi, Hank Venema)

