



INTERNATIONAL CONFERENCE

WATER RESOURCES ASSESSMENT AND SEASONAL PREDICTION

KOBLENZ, 13 to 16 October 2015

Final Programme

Status 16 October 2015

Tuesday 13 October

- 08:30 Registration
- 09:00 – 10:00 **Opening Session**
- 09:00 Meeting called to order
- 09:05 Welcome remarks by the representative of the Federal Institute of Hydrology
Michael Behrendt, Director-General
- 09:15 Opening remarks by the representative of the IHP/HWRP Secretariat
Siegfried Demuth, Director, IHP/HWRP Secretariat
- 09:20 Opening remarks by the representative of WMO
Julius Wellens-Mensah, Chief, Basic Systems Division
- 09:25 Introduction to the Conference: Its rationale, aims, objectives and expected outcomes
Wolfgang Grabs, Chief, International Water Affairs, Federal Institute of Hydrology
- 09:50 Organization of the conference, housekeeping information
- 10:00 – 10:30 Health Break and Group Photo
- 10:30 – 11:45 **Session 1 “Water Diplomacy – means of developing good neighborhood relations”**
(Chairperson: Prof. Siegfried Demuth; Rapporteur: Dr. Hwirin Kim)
- Water Diplomacy – means of developing good neighborhood relations: The Mekong River Basin
Anoulak Kittikhoun, Mekong River Commission, presenter: *Dr. Wolfgang Grabs*
- Water diplomacy issues in the Lower Mekong Basin – some comments
Dr. Wolfgang Grabs, Federal Institute of Hydrology, Koblenz, Germany

A regional approach to climate adaption in the Nile basin

Dr. Michael Brian Butts, DHI, Denmark

Conflict resolution in Euphrates basin by Bankruptcy Method

Dr. Mohammad Reza Jarkeh, University of Zabol, Iran

Post conflict water management: learning from the past for recovery planning in the Orontes River basin

Dr. Myriam Saadé-Sbeih, Graduate Institute of International and Development Studies, Geneva, Switzerland

Water Resources Assessment and Seasonal Prediction: To what extent do they sway decision making in water management in Australia?

Dr. Maureen Papas, Macquarie University, Australia

11:45 – 13:15 **Session 2 “Data and observations as basis for the conduct of water balances”**

(Chairperson: Dr. Wolfgang Grabs; Rapporteur: Dr. Maureen Papas)

Water resources observation using satellite altimeters and future capabilities with the SWOT satellite

Dr. Alice Andral, CNES, France

Monitoring changes in groundwater storage over East Africa using satellites and models

Jamiat Nanteza, University of California, Irvine and Makerere University Uganda

The new portfolio of global precipitation data products of the Global Precipitation Climatology Centre suitable to assess and quantify the global water cycle and resources

Dr. Andreas Becker, Deutscher Wetterdienst, Germany

Rainfall as proxy for evapotranspiration predictions

Dr. Bruno Collischonn, National Water Agency, Brazil

Can Ensemble Empirical Mode Decomposition extract useful information to improve precipitation forecasts of a neural network model

Prof. Rim Ouachani, Ecole Nationale d'Ingénieurs de Tunis (ENIT), Tunisia

13:15 – 14:15 Lunch

14:15 – 15:45 **Session 3 “Drivers of change: changes in the elements of the water cycle and the water balance at global and regional levels”**

(Chairperson: Prof. Xing; Rapporteur: Mr. Kristian Förster)

Crystal balls into the future: Are water balance models ready

Prof. Dr. Balázs M. Fekete, CUNY Environmental CrossRoads Initiative and NOAA-CREST, USA

Development of Dynamic Water Resources Assessment System

Dr. Sung Kim, Hydro Science and Engineering Research Institute, Korea Institute of Civil Engineering and Building Technology, Republic of Korea

Variations of global and continental water balance components including anthropogenic effects and climate forcing uncertainty

Hannes Müller Schmied, Goethe University of Frankfurt, Germany

Impact of climate change and anthropogenic pressure on the water resources of India:
Challenges in management

Dr. Krishnapillai Shadananan Nair, Nansen Environmental Research Centre, India

Integrated climate and land use change scenarios for water resources assessment in Ta Chin
River Basin, Thailand

Dr. Sathaporn Monprapussorn, Srinakharinwirot University, Thailand

15:45 – 16:15 Health Break

16:15 – 17:00 Round-table discussions on session themes, summary of discussions

17:00 Conference adjourns

18:30 Self-paid dinner in a traditional restaurant

Wednesday 14 October

09:00 – 10:30 **Session 4 “Scientific and methodological approaches for water resources assessments”**

(Chairperson: Dr. Andreas Becker; Rapporteur: Mr Alexander Gerner)

Water resources monitoring in Germany - current status and challenges

Dr. Enno Nilson, Peter Krahe, Federal Institute of Hydrology, Germany

Integrated water resource assessment for the Adelaide region, South Australia

Prof. James Cox, South Australian Research and Development Institute, Australia

Rivers: Water resources of the Russian Federation and their changes

Dr. Mikhail Georgievsky, State Hydrological Institute, Russia

Water resources assessment and monthly runoff forecasting in China

Dr. Wang Guangsheng, Bureau of Hydrology of Ministry of Water Resources, China

10:30 – 11:00 Health Break

11:00 – 12:00 **Session 4 continues**

(Chairperson: Dr. Andreas Becker; Rapporteur: Dr. Bruno Collischonn)

A tentative discussion on the monitoring of water resources in China

Dr. Jianqing Yang, Bureau of Hydrology of Ministry of Water Resources, China

Conjunctive operation of river facilities for integrated water resources management in Korea

Dr. Hwirin Kim, Ministry of Land, Infrastructure and Transport, Republic of Korea

Applied water monitoring software through a practical example: Development and implementation of a monitoring and information system for increasing water use efficiency in arid and semi-arid areas in Limarí, Central Chile

Mr. Erich Berger, Ribeka GmbH, Germany

12:00 – 12:45 Round-table discussions on session theme and summary of discussions

12:45 – 13:45 Lunch

13:45 – 14:45 **Session 5 “Capability of countries to conduct water resources assessments (Case studies)”**

(Chairperson: Dr. Bulent Acma; Rapporteur: Dr. Myriam Saadé-Sbeih)

Developing hydro-sources for environment and sustainability in Turkey: The Southeastern Anatolia Project (GAP) as a case study

Dr. Bülent Açma, Anadolu University, Turkey

Construction and evaluation of a toolbox for the formulation of the hydrologic component of the basin management plans in Colombia

Mr. Victor Hernán Garzón Rodríguez, Universidad Nacional de Colombia

Hydrology and water resources in Caspian Sea

Dr. Kourosh Haddadi Moghaddam, International Sturgeon Research Institute, Iran

14:45 – 15:15 Health Break

15:15 – 16:15 **Session 5 continues**

(Chairperson: Dr. Bulent Acma; Rapporteur: Dr. Maureen Papas)

Development Seasonal Flow Outlook Model for Ganges-Brahmaputra Basin in Bangladesh

Mr. Hossain Sazzad, Flood forecasting and Warning center, Bangladesh

East African wetland-catchment data base for sustainable wetland management

Dr. Constanze Leemhuis, University of Bonn, Germany

The Relationship between Agricultural Drought and Irrigation Water Demand in the Yellow River Basin

Dr. Yu Wang, Yellow River Engineering Consulting Co .Ltd, China

Water balance, an important and simple concept with practical complexities. Case Study: Jovain Watershed

Dr. Seyed Mohammad Reza Alavi Moghaddam, Ehsan Azimi Ghalibaf, Azad University of Mashad, Iran

16:15 – 17:00 **Poster presentations (1)**

Variation features and effect factors of the Yellow River runoff over the past 50 years

Prof. Li Fusheng, Yellow River Engineering Consulting Co. Ltd., China

Hydrological modeling on multiple scales in a data scarce catchment in East Africa

Kristian Näschen, University of Bonn, Germany

Comprehensive Regulation of Water Resources Sustainable Utilization in Water Shortage Area in the Northwest China

Prof. Zhang Xinhai, Yellow River Engineering Consulting Co.Ltd, China

Potential of meteorological data for improving remotely sensed snow data in water resources assessment

Chunyu Dong, Heidelberg University, Germany

Hydrological observing system of Russia – the main source of water resources and hydrological regime data
Valery Vuglinsky, State Hydrological Institute, Russia

17:00 Conference adjourns

18:30 – 20:30 Boat tour with cocktail reception

Thursday 15 October

09:00 – 10:30 **Session 6 “Seasonal forecasting strategies and methodologies for climate and water”**

(Chairperson: Dr. Jan Danhelka; Rapporteur: Dr. Balazs Fekete)

The limits of seasonal forecasting for the maximal runoff

Dr. Elena Asabina, Yugra State University, Russia

Seamless Water forecasting in Australia

Dr Dasarath Jayasuriya, Bureau of Meteorology, Australia; presenter: Dr. Wolfgang Grabs

Seasonal Forecast of Kharif Flows from Upper Jhelum Catchment

Prof. Dr. Wolfgang Bogacki, University of Applied Sciences Koblenz, Germany;

Muhammad Fraz Ismail, Pakistan

A snow and ice melt seasonal prediction modeling system for Alpine reservoirs

Dr. Kristian Förster, alpS GmbH, Austria

10:30 – 11:00 Health Break

11:00 – 12:15 **Session 6 continues**

(Chairperson: Dr. Jan Danhelka; Rapporteur: Dr. Balazs Fekete)

Monthly and Seasonal Forecasting of Rhine water-levels and streamflow based on hydrologic, atmospheric and oceanic data

Dr. Monica Ionita, Alfred Wegener Institute Helmholtz Centre for Polar and Marine Research, Germany

Territorial long-term forecasting of spring flood characteristics in the present climatic conditions

Anhelina Kazakova, Prof. Dr. Zhannetta Shakirzanova, Odessa State Environmental University, Ukraine

Assessment of water resources and seasonal prediction of rainfall in India

Dr. Pukhraj Rakhecha, Indian Institute of Tropical Meteorology, India

Comparison of cross-validation and bagging for building a seasonal runoff forecast model

Simon Schick, University of Bern, Switzerland

12:15 – 13:15 Lunch

13:15 – 14:30 **Session 6 continues**

(Chairperson: Dr. Jan Danhelka; Rapporteur: Dr. Bruno Collischon)

Water resources assessment and seasonal prediction

Dr. Muhammad Ajmal Shad, Flood Forecasting Division, Pakistan

Atmospheric teleconnection based seasonal prediction for hydro-meteorological variables over the Korean Peninsula

Dr. Sun-kwon Yoon, APEC Climate Center, South Korea

A review on climate-model-based seasonal hydrologic forecasting

Prof. Dr. Xing Yuan, Chinese Academy of Sciences, China

Seasonal forecast of Nile Floods Over Ethiopian Plateau

Dr. Tama Nada, Egyptian Meteorological Authority, Egypt

14:30 – 15:00 Round-table discussions on session theme and summary of discussions

15:00 – 15:45 **Poster presentations (2)**

"Mountain Block X" - a novel hydrologic model for a distinct seasonal water resources assessment in semi-arid mountain regions

Dr. Alexander Gerner, Dr. Dittrich & Partner Hydro-Consult GmbH, Germany

Study the methods on water management aimed for natural sturgeon reproduction in Caspian Sea

Dr. Kourosh Haddadi Moghaddam, International Sturgeon Research Institute, Iran

Evaluating TRMM and CFSR dataset performance over West Africa using a hydrological model

Thomas Jütten, Prof. Dr. Bernd Diekkrüger, University of Bonn, Germany

Estimating relationship between groundwater level recovery and rainfall for shallow unconfined aquifers in North West region of Bangladesh

Sara Nowreen, Bangladesh University of Engineering and Technology, Bangladesh

A multivariate conditional model for streamflow prediction

Zhiyong Liu, Heidelberg University, Germany

Assessment of ground water quality around Tummalapalle Uranium Mining, Cuddapah Basin, India

Dr. Jaya Raju Nadimikeri, Yogi Vemana University, India

15:45 Conference adjourns

16:15 – 18:45 Guided city tour Koblenz followed by self-paid dinner

Friday 16 October

09:00 – 10:30 **Session 7 “Water quality assessments and forecasting of water quality”**

(Chairperson: Dr. Thomas Heege; Rapporteur: Philipp Saile)

Development of integrated method for long-term water quality prediction using seasonal climate forecast

Dr. Jaepil Cho, APEC Climate Center, Republic of Korea

Space based, harmonized water quality monitoring services for inland and coastal waters
Dr. Thomas Heege, EOMAP GmbH & Co. KG, Germany

River water quality modelling under drought situations. The Turia River case.
Edgar Belda, Universidad Politécnica de Valencia, Spain

Decadal oscillations of the aquatic chemistry of river waters in Latvia
Dmitry Porshnov, University of Latvia, Latvia

Water Quality in Reservoirs: Assessment and Seasonal Prediction
Prof. Dr. Aleksandr A. Tskhai, Altai State University, Russia; presenter: Valery Vuglinsky

10:30 – 11:00 Health Break

11:00 – 12:00 Round-table discussions and summary of session

12:00 – 13:00 Lunch

13:00 – 14:15 Adoption of Conference Statement and next steps proposed
(Facilitator: Dr. Wolfgang Grabs)

14:15 – 14:30 **Closing Session**

Vote of thanks by representative of the participants

Muhammad Ajmal Shad

Closing remarks by representative of WMO

Julius Wellens-Mensah

Closing remarks by representative of the Federal Institute of Hydrology

Michael Behrendt

14:30 End of Conference

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