



(ISCCW 2011)
April 20-21, 2011
Nanjing, China



Symposium Program

International Symposium on Climate Change and Water

April 20 - 21, 2011
Nanjing Hydraulic Research Institute
Nanjing, China



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Welcome

On behalf of the Local Organizing Committee (LOC) and Nanjing Hydraulic Research Institute, I would like to extend my warmest welcome to all of you attending the International Symposium on Climate Change and Water (ISCCW2011) held on April 19 to 21, 2011 in Nanjing, China.

It has become an undoubted fact among scholars that the global climate has undergone great changes, which is one of the most severe challenges we have to face in order to maintain a sustainable development. With the theme of Climate Change Impacts on Water and Adaptation, the Symposium is designed to help meet the challenges in climate change and water field, and shall play a vital role in the process of developing solutions to those challenges. This Symposium will provide you, delegates from all over the world, with a platform for exchanging your research results, new ideas and information in the fields related to climate change and water.

The Symposium is organized by Nanjing Hydraulic Research Institute (NHRI) in close cooperation with Research Center for Climate Change, the Ministry of Water Resources (RCCC, MWR), State Key Laboratory of Hydrology-Water Resources and Hydraulic Engineering, Hydrology Committee of Chinese Hydraulic Engineering Society (CHES), Chinese National Committee of IAHS. NHRI, set up in 1935, is a multipurpose national hydraulic research complex in China, mainly dedicated to fundamental researches, applied researches and technological development, and undertaking directional, principal and comprehensive researches for water conservancy, hydroelectric power and waterway transportation projects as well as researches on soft science and macro decision making. Research Center for Climate Change was set up in 2008 by the Ministry of Water Resources, China. It mainly focuses on the researches of climate change impacts on water, and is composed of more than 40 researches related to climate change and hydrology. It has undertaken several key programs such as *Impacts of Climate Change on Hydrologic Cycle and Assessment of Water Resource Security in Regions of Yellow River, Huaihe River and Hai River* (a National Key Research Program of China), *Impacts of Climate Change on Water Security in China and Adaptive Strategy* (a Non-profit Program of the

Ministry of Water Resource), *Adapting to Climate Change in China (ACCC) Project*, and so forth. Through this Symposium, we wish to develop new cooperation ties with water scientists and scholars from home and abroad.

Located at the lower reaches of the Yangtze River, Nanjing is a beautiful city with a history of more than 2,500 years. There are many places of cultural and historical interests in Nanjing worth visiting. With its unique advantages in hi-tech industry, science, technology and education, Nanjing, the capital of Jiangsu Province, is also a famous modern metropolis, attracting various investors and professionals to develop their new careers here.

I sincerely hope that all of you will enjoy your stay here, and wish ISCCW2011 a great success!

The image shows a handwritten signature in black ink, which appears to be the Chinese characters '张 Jianyun' (Zhang Jianyun).

Professor Zhang Jianyun

Academician of Chinese Academy of Engineering

Chairman of LOC, ISCCW2011

President of Nanjing Hydraulic Research Institute

Organizers

Nanjing Hydraulic Research Institute (NHRI)
Research Center for Climate Change, Ministry of Water Resources (RCCC, MWR)
State Key Laboratory of Hydrology-Water Resources and Hydraulic Engineering
Hydrology Committee of Chinese Hydraulic Engineering Society (CHES)
Chinese National Committee of IAHS

Sponsors

Hohai University
China Institute of Water Resources and Hydropower Research (IWHR)
Beijing Normal University
Nanjing University
Sun Yat-Sen University
Key laboratory of Water Science and Engineering, MWR
National Basic Research Program of China “The Impact of Climate Change on the Hydrologic Cycle and Assessment of Water Resource Security in Huang-Huai-Hai Region”
Sino-UK-SWISS Adapting to Climate Change in China (ACCC) Project
Non-profit Research Program of MWR: Impacts of Climate Change on Water security in China and Adaptive Strategy
Editorial Board of *Advanced in Water Science*

Themes

Main topics of the International Symposium on Climate Change and Water include:

- Environmental processes and projection of climate change scenarios;
- Assessment methodology and tools of climate change impacts;
- Modeling technology of river basin hydrology and application in poorly gauged areas;
- Sustainable utilization and integrated management of water resources;
- Extreme climate events, flood and draught disasters;

- Key technology for flood control and draught mitigation;
- Security of water control projects under global warming;
- Climate change and eco-water environment;
- Strategy, policy and countermeasures of climate change adaptation;
- Low-carbon based technology for water resources development.

Scientific Committee

Chairman	Zhang Jianyun, President/ Academician, NHRI, China
Vice Chairmen	Lin Zuoding, Vice Director-General/Professor, Bureau of Hydrology, MWR, China
	Li Yun, Vice-President/Professor, NHRI, China
	Xu Weiya, Vice-President/Professor, Hohai University, China
Members	Wang Yong, Director/Professor, Department of Planning and Programming, MWR, China
	Dai Jiqun, Director/Professor, NHRI, China
	Liu Jiufu, Director/Professor, NHRI, China
	Yu Dazheng, Director/Professor, Bureau of Hydrology, MWR, China
	Ren Liliang, Director/Professor, Hohai University, China
	Yu Zhongbo, Dean/Professor, Hohai University, China
	Yan Denghua, Professor, IWHR, China
	Xia Xinghui, Professor, Beijing Normal University, China
	Wang Guoqing, Professor, NHRI, China
	Chen Xiaohong, Professor, Sun Yat-Sen University, China
	Pierre Hubert, Secretary General, IAHS
	Ellen Kelly, Project Manager, Department for International Development, UK
	John Qu, Professor, George Mason University, USA

Secretariat

Secretary General: Liu Jiufu, Director/Professor, NHRI

Vice Secretaries General: Ge Jiufeng, Director/Professor, NHRI

Mao Fenglian, Vice Director/Professor, NHRI

Wang Guoqing, Professor, NHRI

Opening Ceremony

08:30—09:00, Wednesday, April 20, 2011

12th floor, Water Resources Building, NHRI

Chair: Prof. Li Yun, Vice-President, NHRI

Welcome speeches

Group Photo

09:00—09:30, Wednesday, April 20, 2011

Venue: Entrance of Water Resources Building, NHRI

Program Overview

April 19, Tuesday	April 20, Wednesday	April 21, Thursday
<p>Registration (09:00—18:00)</p> <p>Venue: Lobby, R&D Hotel (223 Guangzhou Road, Nanjing)</p>	<p>Opening Ceremony (08:30—09:00)</p>	<p>Parallel Sessions:</p> <p><u>Session 1</u> Climate change and environmental processes</p> <p><u>Session 2</u> River basin hydrological modeling and climate change impact assessment</p> <p><u>Session 3</u> Extreme climate events and disaster mitigation</p> <p><u>Session 4</u> ACCC special session on adaptation to climate change (08:30—10:15)</p>
	<p>Group Photo (09:00—09:30) Venue: Entrance of Water Resources Building</p>	
	<p>Invited Keynote Lectures (09:30—10:30)</p>	<p>Tea Break (10:15—10:35)</p>
	<p>Tea Break (10:30—10:45)</p>	
	<p>Invited Keynote Lectures (10:45—12:15)</p>	<p>Parallel Sessions (10:35—12:35)</p>
	<p>Lunch (12:15—13:30) Venue: 2nd floor, R&D Hotel</p>	<p>Lunch (12:35—13:30) Venue: 2nd floor, R&D Hotel</p>
	<p>Invited Keynote Lectures (14:00—15:30)</p>	<p>Visiting (14:00—18:00)</p>
	<p>Tea Break (15:30—15:50)</p>	
	<p>Invited Keynote Lectures (15:50—17:50)</p>	
	<p>Banquet (18:00) Venue: 2nd floor, R&D Hotel</p>	<p>Closing Dinner (18:00) Venue: 2nd floor, R&D Hotel</p>

Invited Keynote Lectures

09:30—12:15, Wednesday, April 20, 2011

Conference Hall, 12th floor, Water Resources Building, NHRI

No.	Lecturer	Title	Time
Chair: Prof. Yu Zhongbo			
1	Zhang Jianyun	Water Resources in China under Climate Change	09:30—10:00
2	Huib de Vriend	Lowland River Engineering and Climate Change	10:00—10:30
Tea Break (10:30—10:45)			
Chair: Prof. Alfred Powell			
3	Michael R. Moore	Water Quality, Cyanobacteria and Climatic Variation in Australia	10:45—11:15
4	Yu Zhongbo	Advances and Challenges in Hydrology and Water Resources under Environmental Changes	11:15—11:45
5	Pierre Hubert	Hydrological variability and changes today and to morrow	11:45—12:15
Lunch			12:15 - 13:30

14:00 – 17:50, Wednesday, April 20, 2011

Conference Hall, 12th floor, Water Resources Building, NHRI

No.	Lecturer	Title	Time
Chair: Prof. Roger Calow			
1	Alfred Powell	Satellite Hydrometeor Estimation and Nowcasting at NOAA/NESDIS/STAR	14:00—14:30
2	Ren Guoyu	Characteristics of high-intense rainfall over the China during the last 50yrs	14:30—15:00
3	David M. Ramsbottom	The UK Climate Change Risk Assessment	15:00—15:30
Tea Break (15:30—15:45)			
Chair: Prof. Wang Guoqing			
4	Yan Denghua	Comprehensively coping with flood and drought under changing environment	15:45—16:15
5	Frank Schwartz	Impacts of climate variability and change on lakes of the North American prairies	16:15—16:45
6	Xia Xinghui	Trends of water quantity and water quality of the Yellow River from 1956 to 2009: implications for the effect of climate change	16:45—17:15
7	Larry Brazil	Understanding Uncertainty in River Basin Hydrology and Its Impacts on Decision Making in an Era of Climate Change	17:15—17:45
Banquet			17:45 - 19:30

Parallel Sessions

08:30 – 12:35, Thursday, April 21, 2011

Session 1: Climate change and environmental processes

Conference Hall, 13th floor, Main Building, NHRI

No.	Speaker	Title
Chairs: Prof. Huib de Vriend, Prof. Lu Yongjun (08:30 – 10:15)		
1	Thomas Probst	The Swiss Strategy for Adaptation to Climate Change
2	Liu Cuishan	Variation of Water Resources in Haihe River Basin under Climate Change
3	Tong Xin	Multiple Time Scale Analysis of some typical Stations of the Yellow River in the Changing Environment
4	Hu Jun	Dynamic Changes of Land Use in Zoigê Wetland based on climate and human activities
5	Yan Xiaolin	The anomalies of 500hPa geopotential height when droughts of Haihe River Basin
6	Mei Ying	Trend and Mutation Analysis of Temperature and Precipitation in Lancang River Basin
7	Yang Xueli	Impacts of Climate Changes on floods and droughts and Its Countermeasures in Laizhou Bay Area
8	Zhang Yongyong	Impact of climate change on eutrophication in Suya lake, Huai River Basin of China
Tea break (10:15 – 10:35)		
Chairs: Prof. Ajit Kumar Bera, Prof. Yan Denghua (10:35 – 12:35)		
9	Lu Yongjun	Advances in morphodynamic processes of estuarine and coastal mudflats under changing conditions
10	Nguyen Van Kien	Utilization of salinity/drought-tolerant crops conserved at Plant Resources Center for adaptation to climate change in Vietnam
11	Chen Xingwei	Long-term calcium decline in central Ontario lakes as determined by historical acidification and climate variability
12	Han Songjun	Different spatial and temporal patterns of Priestley-Taylor and Penman potential evaporation in the Tarim Basin, 1960–2006
13	Wu Di	Possible Changes of Temperature and Precipitation in Southwest China under IPCC A1B Scenario
14	Pang Aiping	A method to analyze the water-saving potential associated with GIS and RS technology in Tanghe Irrigated Area, China
15	Hao Xiuping	Impacts of Climate Change on River Water Quality: Numerical Experiments and Application
16	Zhang Qi	Characteristics of precipitation evolution of Anyang during 1952-2009
Lunch (12:35 – 13:30)		

Session 2: River basin hydrological modeling and climate change impact assessment

Second Meeting Room, 13th floor, Main Building, NHRI

No.	Speaker	Title
Chairs: Prof. Frank Schwartz, Prof. Xia Xinghui (08:30 – 10:15)		
1	Md.Shahabul Alam	Assessing impacts of urbanization and climate change on urban flood risks: A case study on Turnhout in Belgium
2	Wang Dong	Bayesian Method for Parameters Estimation in Hydrologic Frequency Analysis
3	Yuan Fei	Predicting future runoff variations associated with climate change scenarios in Chinese river basins via the Noah land surface model
4	Jin Junliang	Macro-Sacle Distributed Hydrological Modelling and Sensitivity Analysis in National-wide of China
5	Yang Chuanguo	Development of a two-way coupled land surface-hydrology model: method and application
6	Chen Jie	Reliability assessment of statistical approaches in downscaling precipitation for North America
7	Wu Jia	Simulation of Climate Effects of the Three Gorge Reservoir by a Regional Climate Model
8	Yu Yingdong	The precipitation simulation based on Regional Climate Model- a case study in Haihe River Basin
Tea break (10:15 – 10:35)		
Chairs: Dr. Pierre Hubert, Prof. Wang Dong (10:35 – 12:35)		
9	Liu Yuanbo	Surface water changes of Poyang Lake of China in a changing climate
10	Liu Yanli	Assessing the effect of climate natural variability in water resources evaluation impacted by climate change
11	Wang Enli	The effects of conditional parameterization on performance of rainfall-runoff model regarding hydrologic non-stationary
12	Zhang Liru	XAJ Model and its Application to Different Typical Sub-Catchments
13	Xiao Peiqing	Runoff and Infiltration Process and Hydraulic parameters Characteristics in grassplots under simulated rainfall
14	Liu Kunkun	Water resources security evaluation based on climatic change-a review
15	Zhao Yan	Assessing climate change impacts on hydrology with uncertainties of GCM structure and climate sensitivity
16	Guo Yanan	Information Entropy Set Pair Analysis Model for Assessing Water Resources Bearing Ability
17	Cao Zhangjun	An improved RBF-NN Model in the typical Karst area
Lunch (12:35 – 13:30)		

Session 3: Extreme climate events and disaster mitigation

Second Meeting Room, 3rd floor, R&D Hotel

No.	Speaker	Title
Chairs: Prof. Michael R Moore, Prof. Ren Guoyu (08:30 – 10:15)		
1	Arief Sutadian	The influence of climate change in flood event: a case of Bandung Metropolitan, Indonesia
2	Xu Yueping	Impact of climate change on design storm estimation in Qiantang River Basin, China
3	Li Chunhui	An inexact optimization of industrial organization under the restriction of water resources in Beijing in 2020
4	Ding Xiangyi	Impacts of climate change on climatic elements in the Poyang Lake Basin
5	Sukhwan JANG	Case Study on Dam Failure Time Estimation Due to Extreme Flood
6	Liu Yongzhi	Research and development of reservoir emergency dispatch decision support system
7	Sun Jiajia	The Research of Water Consumption and Water Deficit of Main Crops in Inner Mongolia, China
8	Lin Yuchen	Assessment of climate change impact on drought disaster in the southern of Taiwan
Tea break (10:15 – 10:35)		
Chairs: Prof. David M. Ramsbottom, Prof. Xu Yueping (10:35 – 12:35)		
9	S.H.M. Fakhruddin	Long Lead Flood Forecasts Application and Dissemination Process for Community Level Response
10	Yang Xiaohua	SPAMOW for Assessing Water Resource Security under Climate Change in Haihe River Basin
11	Xu qin	Comparison of rainfall-runoff modeling with BTOPMC and BP models
12	Lin Kairong	Temperature, precipitation and runoff changes in the East River basin during past 50 years
13	He Handan	Southern China, Annual Runoff Forecast Model Based on Wavelet De-noising and Rank-Set Pair Analysis
14	Zhang Weisheng	Study on Tidal System Change Due to Mean-sea-level Rise in Marginal Seas near China
15	Zhang Xuejun	Water Resources Vulnerability Assessment Based on Eigenvector Set Pair Analysis Model under Climate Change
16	Wang Bingbing	Downscaling of GCM simulated variables for hydrologic modeling in the headwater watersheds of Changjiang and Yellow river basins
17	Jiang Rong	Improved Similar Figure Method for Hydrology Change and Extreme Climate Prediction in Yellow River Basin
Lunch (12:35 – 13:30)		

Session 4: ACCC special session on adaptation to climate change

Third Meeting Room, 4th floor, R&D Hotel

No.	Speaker	Title
Chairs: Dr. Roger Calow, Prof. Wang Huimin (08:30 – 10:15)		
1	Ellen Kelly	Introduction of ACCC project
2	Feng Qiang	Natural Disasters and Climate Change
3	Xu Yinlong	The context of physical risk assessments of climate change in ACCC project
4	Wang Guoqing	Climate Change & Groundwater Protection in China
5	Abed Khalil	Measuring and Coping with Climate Change and Its Impacts on Water and Agriculture in Huanghe-Huaihe-Haihe Region
6	Wang Changgui	Adaptation to Climate change: PRECIS capability building worldwide
7	Lu Shanlong	Forty years channel change on the Yongdinghe River, China: Patterns and causes
8	Ren Yuyu	The difference of precipitation trends between mountain and plain
Tea break (10:15 – 10:35)		
Chairs: Ms. Ellen Kelly, Prof. Xu Yinlong (10:35 – 12:35)		
9	Roger Calow	Climate change and water services in China: management challenges and policy priorities
10	Yuan Hui	Urban water management to adapt climate change
11	Wang Huimin	A framework for adaptive management system of water resources facing climate change—a case of Huai river basin
12	Ajit Kumar Bera	Integrated water management of the Kopai river basin in west Bengal, India
13	Xuan Yunqing	Effects of climate change on the spatial and temporal transformations of wetlands: Case study on Nabajuzzi wetlands Uganda
14	Lovleen Bhullar	Climate change adaptation and water policy: Lessons from Singapore
15	Wang Xiaojun	Climate change and future water demand: Impacts and adaptations
16	Md. Moniruzzaman	A study on drinking water sources and supply systems in the coastal area of Bangladesh
Lunch (12:35 – 13:30)		

Guidelines for Symposium Participants

Service Information

Secretary General:

Prof. Liu Jiufu

Mobile: 13601459267

Logistic Service:

Liu Yanli (English), Mobile: 15205160896

He Ruimin (Chinese), Mobile: 13915921024

Venue: Room 1201, Room 1202, R&D Hotel

Technical Support (during symposium sessions)

Wang Guoqing (English), Mobile: 13913925820

He Ruimin (Chinese), Mobile: 13915921024

Presentation Materials

Please submit your symposium materials or PPT to the Secretariat upon registration.

Symposium Venues

Opening Ceremony: Conference Hall, 12th floor, Water Resources Building, NHRI
225 Guangzhou Road, Nanjing

Invited Keynote Lectures: Conference Hall, 12th floor, Water Resources Building, NHRI

Session 1: Conference Hall, 13th floor, Main Building, NHRI

Session 2: Second Meeting Room, 13th floor, Main Building, NHRI

Session 3: Second Meeting Room, 3rd floor, R&D Hotel

Session 4: Third Meeting Room, 4rd floor, R&D Hotel

Meals

Time	Meals	Venues
07:00-08:30	breakfast	R & D Hotel
12:30-13:30	lunch	R & D Hotel
18:00-19:30	dinner	R & D Hotel

** Please present your meal coupons upon arrival at the dining hall, R&D Hotel.

Notes

1. 12 minutes for each presentation and about 3 minutes for questions and answers in parallel sessions.
2. All mobile phones should be switched off or set to vibration mode in all sessions.
3. Participants shall bear their expenses of hotel rooms, phone services and all other room services.

Flow Chart of Registration

- Step 1: Check in for registration
- Step 2: Registration fee collection
- Step 3: Visiting route selection
- Step 4: Materials handout
- Step 5: PPT collection
- Step 6: Room check in

Map



NHRI, 223--- Main Building, Nanjing Hydraulic Research Institute, No.223 Guangzhou Road, Nanjing
NHRI, 225--- Water Resources Building, Nanjing Hydraulic Research Institute, No.225 Guangzhou Road, Nanjing