Summary of

11th SCA Special Session

“Monitoring and Prediction for Early Warning against Water-Related Disasters in Asia -Towards Integrated Research”

at Mongolia-Japan Center for Human Resources Development,
National University of Mongolia,
Ulaanbaatar
on July, 4th, 2011

Organizing Committee: Ichirow Kaihotsu(chair) and Jun Asanuma

This session was held during the 11th Science Council of Asia in Ulaanbaatar, Mongolia. Its purpose is, first, to know the current actual status of recent natural disaster related to water such as floods, droughts, and, second, to discuss current status of their monitoring and prediction and possible actions for mitigation. The 5-hour session contains 2 key note lectures and 6 general presentations and observed about 70 attendances in total. The agenda of the session is attached at the end of this document.

During the key note session, Prof. T. Yasunari from Japan presented the analyses on the long-term trend of Asian monsoon, and stressed on the importance of links between disaster research and climate change research. Prof D. Basandorj from Mongolia followed with an introduction of on-going flood management in Ulaanbaatar city. The morning session following the key notes focused on the issues in the northern and drier countries, where Dr. Ailikun from China explains current efforts on draught researches in China, followed by Prof. I. Kaihotsu from Japan who showed current status of state-of-the-art technology of drought detection using satellite remote sensing. Dr. D. Oyunbaatar talked on an early warning system for urban flooding at Ulaanbaatar.

The afternoon session visits case studies in southern and wetter countries, where Dr. Ir. Dirhamsyah from Indonesia, introducing the efforts at Ace region after the tsunami disaster of 2004 Indian Ocean earthquake, stressed importance of building and sharing the knowledge for disaster mitigation. Then, Mr. T. Sukhapunaphan from Thailand presented the efforts in Thailand for near realtime monitoring and early warning of floods. Finally, Prof. K. Takara from Japan, in his more comprehensive presentation, put emphasis on “non-structural” measures and

risk assessment in the disaster mitigation.

The discussion session at the end of the session was chaired by Prof. J. Asanuma. It was agreed by the participants that there is increasing vulnerability against natural disaster in Asia, partly due to climate change and partly due to societal aspects such as rapidly growing population in the region. Thanks to the continuing elaboration in the field of science and technology related to natural disasters, knowledge is increasing for disaster mitigation, and innovative systems such as early warning system real-time monitoring system and satellite remote sensing, are being implemented. Disseminating works of these innovation to the society is also underway. Global change studies focuses on sustainability of the society and adaption and analyze on-going climate change, while less attention are paid to historical disasters. In this reason, disaster studies and global change studies need to work more closely to have more synthesized results.

In order to continue further discussions on natural disaster in the framework of Science Council of Asia, it was recognized by all of the participants that more opportunities are needed in the future SCA meetings. For this reason, a proposal on the special session during 12th SCA, given in the next page, was adopted by the participants.

Proposal on

Special session during 12th SCA in Bogor, 2012

“Reducing Vulnerability in Asian Cities”

potential organizer: K. Takeuchi (ICHARM, Japan)

Asia is the hot spot of the global change in the 21st century on population growth, economic growth, environmental changes including climate change. The vulnerability of cities against natural disasters is rapidly increasing especially in mega cities. The SCA in 2012-14 will focus on this important issue and identify what Asian scientists can do for reducing vulnerability. The discussion would cover among others such subjects as:

1. Realities of increasing vulnerability in Asian cities (Urbanization taking place into hazardous areas, Governance issues in controlling land use etc.),
2. Forensic studies of recent mega disasters in Asian cities (What were the keys that made the East Japan, Sichuan, Pakistan floods, etc.),
3. Identification of vulnerability reduction paths in Asian cities, and
4. Potential collaboration in Asian cities together with scientists for implementation of vulnerability reduction (This would include capacity development program of START.)

This would take at least three years for getting a conclusive report. Foci on "identification of vulnerability (1 & 2)", "identification of vulnerability reduction path (2 & 3)" and "collaboration plan for implementation (4)" would be the main subject of each year. Thus the first year focuses on items 1 and 2.This meeting will be an Asian contribution to the ICSU, ISSC and UNISDR program of Integrated Resarch on Disaster Risk (IRDR). Session organizers will relate the plan with IRDR activities of various countries and the IPO of IRDR in Beijing.

SCA Special session/WS: Monitoring and Prediction for Early Warning against Water-Related Disasters in Asia -Towards Integrated Research
Venue: Mongolia-Japan Center for Human Resources Development, Nationa University of Mongolia July 4 (Monday)、2011

Presentation time: 35minfor each Keynote lecture and 20 min for each general presentaion

Su-sessions		Start	End		Title	Speaker	Coauthor
	0:05	10:00	10:05	Opening Address		Prof. I. Kaihotsu	
Sub-session I (10:05-11:15)				Chair: Prof. I. Kaihotsu 10:05-11:15			
	0:35	10:05	10:40	Keynote Lecture 1	Long-term trends of Asian Hydro-climate in the recent several decades -Natural or Anthropogenic?-	Prof. T. Yasunari	
	0:35	10:40	11:15	Keynote Lecture 2	Flood infrastructure and management in Ulaanbaatar city	Prof. D. Basandorj	Mr. Ganbat
	0:10	11:15	11:25	Break			
Su-session II (11:25 - 12:25)				Chair: Dr. Ir. Dirhamsyah 11:25 - 12:25			
	0:20	11:25	11:45	Presentation 1	Progress Report of Dryland Study in Monsoon Asia Integrated Regional Study (MAIRS)	Dr. Ailikun	
	0:20	11:45	12:05	Presentation 2	Observations of surface soil moisture by AMSR-E for drought studies in Asia	Prof. I. Kaihotsu	Toshio Koike (The Univ. of Tokyo), Hideyuki Fujii (JAXA), and Dambaravjaa Oyunbaatar (IMH)
	0:20	12:05	12:25	Presentation 3	Floods and hydrological droughts in Mongolia	Dr. D. Oyunbaatar	Dr. G. Davaa
	1:25	12:25	13:50	Lunch			
Su-session III (13:50 - 14:50)				Chair: Prof. Ailikun 13:50 - 14:50			
	0:20	13:50	14:10	Presentation 4	TDMRC and hydro meteorological disaster mitigation in Aceh	Dr. Ir. Dirhamsyah	
	0:20	14:10	14:30	Presentation 5	Floods and Warning System in Upper Northern Thailand	Dr. T. Sukhapunaphan	
	0:20	14:30	14:50	Presentation 6	Extreme Events: recent catastrophic water-related disasters in the world	Prof. K. Takara	
Sub-session IV (14:50-15:20)				Chair: Prof. D. Basandorj and Prof. Asanuma 14:50-15:20			
	0:30	14:50	15:20	Total discussion			
	0:05	15:20	15:25	Closing Remarks		Prof. I. Kaihotsu	