



July 4-6, 2011  
ULAANBAATAR, Mongolia



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## **PREFACE**

This is the summary of the reports presented at the 11th SCA Conference held under the theme of “Combating Land Degradation” during which International Symposium and seminars took place.

With the purpose of expanding cooperation among the scientific organizations of Asian countries, their joint research and scholarly works, at the Asian Conference on Scientific Cooperation held in Tokyo in May 2000, the representatives of 10 Asian countries including Japan, China, India, Indonesia, South Korea, Malaysia, the Philippines, Singapore, Thailand and Vietnam established a scientific organization called the Science Council of Asia, the Conference of which took place in May 2001 in Bangkok, Thailand and Mongolia joined SCA as its 11th member in 2004.

During the 9th SCA Conference held in Singapore it was decided to hold the 11th SCA Conference in Mongolia in 2011 under the theme of “Combating Land Degradation”

The Mongolian Academy of Sciences in cooperation with the Secretariat of the Science Council of Asia completed the preparation for the Conference and the 11th SCA Conference was successfully held from 4 to 6 July, 2011 in Ulaanbaatar.

The Management Board Meeting and General Assembly Meeting One were held on July 4 2011 in the Government Palace chaired by Batbold Enkhtuvshin, President of Mongolian Academy of Sciences, President of SCA. At these meetings the Eleventh SCA Annual Report was approved. Application for a new SCA membership from Bangladesh Academy of Sciences (BAS) was also approved. Bangladesh became the twelfth member country and BAS became the twentieth member organization of SCA.

Revision of the SCA Statutes and By-laws, which incorporated the aspects of; 1) improvement of efficiency of governances, 2) establishment of self-supportive financial basis and 3) further stimulation of activities, were approved.

Future host countries of SCA conferences were proposed and announced: Conference in 2012 in Indonesia (Bogor), Conference in 2013 in Thailand, Conference in 2014 in Malaysia and Conference in 2015 in India.

New SCA officers were elected among the members of the General Assembly meeting. Lukman Hakim, Chairman of Indonesian Institute of Sciences (LIPI) was elected as President, Mohd Nordin Hasan, Fellow, Academy of Sciences Malaysia (ASM), was elected as Vice President/ President-Elect, Supot Hannongba, President-Elect, Science Society of Thailand under the Patronage of H.M. the King (SST) was elected as Vice President, Batbold Enkhuvshin, President, Mongolian Academy of Sciences (MAS) assumed as Immediate Past President and Yoichi Muraoka, Member of the SCJ, was elected as Secretary-General / Treasurer.

The first announcement of the twelfth SCA conference in Indonesia in 2012 was made by Lukman Hakim, Chairman of Indonesia Institute of Sciences (LIPI), Vice President of SCA and was unanimously acknowledged.

Current status of SCA Joint Projects was introduced by Yoichi Muraoka, Secretary General/Treasurer of SCA.

The General Assembly Meeting Two was held on July 6, 2011 at the Mongolian Academy of Sciences (MAS). At this meeting a report of each SCA Special Session organized on 4 July was presented. Sukhbaatar Bilgee from Mongolian University of Science and Technology delivered a report on “Developing E-Science in Asia” and so did Liu Chuang on “Open Data Knowledge Environment for Innovative Research, Education and Society on Environment in Asia (ODKE)”, Ichiro Kaihotsu on “Monitoring and Prediction for Early Warning against Water-Related Disasters in Asia –Towards Integrated Research” and Mamie Misawa on “Pop Culture in Asia: The Landscape of Mongolia – the Formation of Its “Prairie Image” in East Asia”.

The Mongolian Government paid a special attention to the 11th SCA Conference and Mr. M. Enkhbold, Deputy Prime Minister of Mongolia and Presiding member of the Mongolian academy of sciences and Mr. L. Gansukh, member of Government and Minister for Environment and



Tourism of Mongolia spoke at the Conference and the heads of the delegation was received by Mr. D. Ochirbat, Chairman of the Standing Committee of the State Great Hural (Parliament) of Mongolia.

Within the framework of this Conference an International Symposium was held during which 11 reports were presented under 4 themes including "Policy and steps by the Mongolian Government to combat land degradation and desertification", "Current Status and Future Strategies relating to Desertification and Land Degradation / Land Cover in Asian countries", Information Assessment and Mapping of Land Degradation and Desertification " and "Land Cover Change and Urban Planning".

Under the theme of "Policy and steps by the Mongolian Government to combat land degradation and desertification" Mr. L. Gansukh, Minister for Environment and Tourism spoke about the policy of the Mongolian Government for fighting desertification and reducing land degradation and Mr. A. Namkhai, head of the Department for Special Protected Territories of MET presented a report on "Special Protected Area Development in Mongolia"./

Under the "Current Status and Future Strategies relating to Desertification and Land Degradation/Land Cover in Asian countries" Dr. J. Tsogtbaatar, Director of the Institute of Geoecology, MAS presented a report on Present Status and Desertification in Mongolia and factors that affect it". Prof. Tetsuzo Yasunari, member of the Science Council of Japan presented a report "Climate Change and Land Cover Change in Japan and Dr. Soo Jin Kim, member of the National Academy of Sciences, Republic of Korea delivered a report "The Role of Moisture and Polutants in Rock Weathering".

Under the theme of "Information, Assessment and Mapping of Land Degradation and Desertification" Dr. D. Amarsaikhan, Chief of Section, Institute of Informatics, MAS presented a report on "Application of Advanced Technology for Combating Land Degradation and Desertification in Mongolia" , Dr. Ts. Batsaikhan, researcher of the Research Center for Astronomy and Geophysics, MAS – on the Seismic Hazard Assessment of Mongolia" and Prof. Yumiko Nara of the Japan's Open University spoke on "Sustainable Natural Disaster Management in Asia".

Within the framework of the theme Mr. P. Gomboluudev, Scientific Secretary of the Institute of Meteorology presented a report on “Climate Change and Agriculture in Mongolia”, Dr. M. Erdenetuya, researcher of the Information Computing Center of the Ministry of Environment and Tourism – on “Land Cover Change in Mongolia” and Dr. Robert M. Delinom, of the Research Center for Geotechnology Indonesia Institute of Science spoke on “Land Cover Change and Heatland Phenomena in Urban Area in Indonesia”.

According to UN Convention for Combating Desertification, 90 percent of the entire area of Mongolia belongs not only to the fragile region prone to desertification and land degradation, but also, as have been established by our scientists, the mean air temperature of Mongolia has become 2,1 degree warmer in the last 70 years and as a consequence, the water surface area has decreased by 28,0 percent, , perpetual snow – by 31,0, steppe area – by 28,0 percent and forest area – by 8,0 percent, and at the same time sand surface has increase by 46,0 and desert steppe area – by 68,0 percent. This is why this symposium on “Combating Land Degradation in Asia” took place in our country.

I would like to express on behalf of the organizing committee to the staff of the SCA Secretariat and to those who presented their reports our heartfelt thanks.

Let the good deeds flourish!


Academician B.Enkhtuvshin  
President of the Science Council of Asia (SCA)  
President of the Mongolian Academy of Sciences (MAS)

## Programme for 11th SCA Conference, Ulaanbaatar, Mongolia

Date / Time	Programme
<p>4 (Mon) July 2011</p> <p>8.30am –</p> <p>10.00am – 12.00pm</p> <p>13.30pm – 17.00pm</p>	<p>Arrival/Registration (6F, Lobby, Ulaanbaatar Hotel) SCA Secretariat (6F, Khukh Asar Hall, Ulaanbaatar Hotel)</p> <p>- SCA Special Sessions/Workshops (Venue: Mongolia-Japan Center for Human Resources Development, National University of Mongolia)</p> <p>1. Water-related Disasters in Asia (1st Floor) 2. Pop Culture in Asia (1st Floor) 3. Developing E-Science in Asia (2nd Floor) 4. Open Data and Knowledge Environment (2nd Floor)</p> <p>Lunch (to be arranged by each participant)</p> <p>- SCA Special Sessions/Workshops (Cont.)</p>
<p>14.00pm – 14.30pm</p> <p>15.00pm – 15.30pm</p> <p>16.00pm – 17.30pm</p> <p>19.00pm-20.30pm</p>	<p>- Management Board Members, courtesy visit to the Chairman of the Standing Committee for Social Policy, Education, Culture and Science of the State Great Hural of Mongolia (Venue: Government House)</p> <p>- Management Board meeting I (Government House)</p> <p>- General Assembly Meeting I (Government House)</p> <p>- Reception Dinner hosted by Deputy Prime Minister of Mongolia (Venue: “Elite” Center)</p>

Date / Time	Programme
5 (Tues) July 2011	
9.00am – 18.00pm	 - International Symposium on “Combating Land Degradation in Asia” (Venue: Main Hall, Ulaanbaatar Hotel)
9.00am –	- Opening address, Prof. Batbold Enkhtuvshin, President, SCA H.E. Mr. M. Enkhbold, Deputy Prime Minister of Mongolia Prof. Ichiro Kanazawa, Immediate Past President, Science Council of Japan
10.00am -11.00am	- Keynote session: H. E. Mr.L. Gansukh, Minister for Environment and Tourism “Policy and Steps by the Mongolian Government to Combat Land Degradation and Desertification”
11:15am – 12.15pm	Session A: Current Status and Future Strategies Relating to Desertification and Land Degradation/Land Cover in Asian Countries
12.15pm – 13:30pm	Lunch (to be served in Ulaanbaatar Hotel)
13.30pm – 14:30pm	Session B: Information, Assessment and Mapping of Land Degradation and Desertification
14.30pm – 15:30pm	Session C: Land Cover Change and Urban Land Planning
15.30pm – 15:45pm	Special Information Session: Science and Technology Research Partnership for Sustainable Development (SATREPS)
16.00pm – 17:25pm	Panel Discussion: Issues in Mongolia from Scientific Point of View
17.25pm – 17:30pm	- Closing Remarks
19:00pm -	- Appreciation Dinner hosted by SCJ (Venue: Ulaanbaatar Hotel)



Date / Time	Programme
<p>6 (Wed) July 2011</p> <p>9.30am – 11.00am</p> <p>13.30pm – 17.00pm</p>	 <p>General Assembly Meeting II (Venue: Mongolian Academy of Sciences)</p> <p>Lunch (to be served in Ulaanbaatar Hotel)</p> <p>Excursion to Chinggis Khaan Memorial</p>





Sciences Council of Asia

**INTERNATIONAL SYMPOSIUM**

# **Combating Land Degradation in Asia**

**July 5, 2011**

**ULAANBAATAR, Mongolia**

## SCA International Symposium

## “Combating Land Degradation in Asia”

to be held on Tuesday, 5th July, 2011  
at the Ulaanbaatar Hotel, Ulaanbaatar, Mongolia  
hosted by the Science Council of Asia (SCA)

Sciences Council of Asia

## Agenda

## Opening

9<sup>00</sup>
**Opening  
Remarks**
9<sup>00</sup> 9<sup>05</sup> (5 min)

**SCA President** *Prof. Batbold Enkhtuvshin, President, Mongolian Academy of Sciences (MAS), Mongolia*

**Keynote  
Speech**
9<sup>05</sup> 9<sup>35</sup> (30 min)

**Deputy Prime Minister** *H. E. Mr. M. Enkhbold, Deputy Prime Minister of Mongolia,*

**Message  
from SCJ**
9<sup>35</sup> 10<sup>00</sup> (25 min)

**SCJ Immediate Past President** *Prof. Ichiro Kanazawa, Immediate Past President, Science Council of Japan (SCJ), Japan*  
**President** *“Report on the Nuclear Power Plant Accident in Japan”*

10<sup>00</sup>
**Keynote  
Session**

**Policy and steps by the Mongolian Government to combat land degradation and desertification**

**Moderator** *Prof. Tuvdendorj Galbaatar, Secretary General, Mongolian Academy of Sciences (MAS), Mongolia*

10<sup>00</sup> 10<sup>30</sup> (30 min)

**Speaker 1** *Dr. L. Gansukh, Minister for Environment and Tourism of Mongolia, Mongolia*  
**“Policy and steps taken by the Government to combat land degradation and desertification in Mongolia”**

10<sup>30</sup> 11<sup>00</sup> (30 min)

**Speaker 2** *Dr. A. Namhai, Head of Department, Special protected areas in Mongolia, Ministry of Environment and Tourism of Mongolia, Mongolia*  
**“Special Protected Area development in Mongolia”**



11<sup>00</sup> 11<sup>15</sup>

**Tea Break**

11<sup>15</sup>

**Session A**

**Current Status and Future Strategies relating to Desertification and Land Degradation/Land Cover in Asian countries**

**Moderator**

**Dr. Jaime C. Montoya**, *Former President, National Research Council of the Philippines (NRCP)*

11<sup>15</sup> 11<sup>35</sup> (20 min)

**Speaker 1**

**Dr. J. Tsogtbaatar**, *Director, Institute of Geocology, Mongolia Academy of Sciences (MAS), Mongolia*  
**“Present status of desertification in Mongolia and factors that affect it”**

11<sup>35</sup> 11<sup>55</sup> (20 min)

**Speaker 2**

**Dr. Tetsuzo Yasunari**, *Council Member, Science Council of Japan (SCJ), Professor, Hydrospheric Atmospheric Research Center (HyARC), Nagoya University, Japan*  
**“Trend in Mongolian Climate in the recent decades and its implication”**

11<sup>55</sup> 12<sup>15</sup> (20 min)

**Speaker 3**

**Dr. Soo Jin KIM**, *Member, The National Academy of Sciences (NAS), The Republic of Korea*  
**“The Role of Moisture and Pollutants in Rock Weathering”**

12<sup>15</sup> 13<sup>30</sup>

**Lunch**

13<sup>30</sup>

**Session B**

**Information, Assessment and Mapping of Land Degradation and Desertification**

**Moderator**

**Prof. Feng Changgen**, *Vice-President, China Association for Science and Technology (CAST), China*

13<sup>30</sup> 13<sup>50</sup> (20 min)

**Speaker 1**

**Prof. D. Amarsaikhan**, *Head of Section, Institute of Informatics, Mongolia Academy of Sciences (MAS), Mongolia*  
**“Application of Advanced Technology for Combating Land Degradation and Desertification in Mongolia”**