



Figure 7. Glacier change maps of Sair Mountain (Landsat and ASTER, 1992, 2002, 2007)

As an example, the glacier of Sair mountain area was 1547.99 ha in 1992, 945.3 ha in 2002 and in 2007 it was decreased to 429.46 ha and its decreases accounted from 38.9 to 72.3 percent.

Table 4. Glacier area change

Mountains	Areas, ha				Decrease changes, %
	Landsat TM	Landsat TM	Landsat ETM+	ASTER	
	1970s	1990s	2000s	2007/2009	
Sair	-	1992-6-25	2002-7-14	2007-8-13	38.9-72.3
	-	1547,99	945.3	429,45	
Turgen	1975-6-14	1989-9-19	2001-9-4	2009-9-25	38.0-74.0
	22886,58	19686.3	5124.89	12203.2	
Altai Tavan Bogd	-	1990-9-7	-	2003-8-9	51.0-59.1
	-	45894.2	-	22585.86	
Hoid Buurugt	1999-9-7	2002-7-14	2006-8-2	2009-9-25	35.5 – 31.4
	<b>18006.28</b>	1474.4	649.89	1010.05	

## CONCLUSIONS

1. The EIC has been produced land cover maps using NOAA and MODIS NDVI data sets and validation of land cover types was done successfully.
2. The land cover classification work will be operational and making land cover maps in frequent basis and it would be very important to monitor land cover changes and land degradation/desertification monitoring.
3. For glacier mapping and its change detection we used more fresh (2007 and 2009) and higher resolution ASTER satellite imageries. Further other high resolution satellite data could be used for land cover change detection.

## **REFERENCES**

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Sciences Council of Asia

## Special Sessions / Workshops

### **Professor Liu Chuang** (*China*)

Open Data and Knowledge Environment for Innovative Research, Education and Society on Environment in Asia (ODKE)

### **Professor Ichirow Kaihotsu** (*Japan*)

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

### **Professor Shozo Fujii** (*Japan*)

Pop Culture in Asia

The landscape of Mongolia the formation of a prairie image in East Asia, examining the documentary movie “Crossing Mongolia” made in the 1920’s and the latest Mongolian movie

### **Professor Sukhbaatar Bilgee** (*Mongolia*)

Developing E-Science in Asia

July 4, 2011  
ULAANBAATAR, Mongolia

<b>No.1. Session Proposal as a Special Session at the 11<sup>th</sup> SCA Conference</b>	
Anchor's (Proposer's) Information	Name: <b>Prof. Liu Chuanq</b> , Country: <b>China</b> <i>Professor, Institute of Geography and Natural Resources, Chinese Academy of Sciences Date of Proposal: 8 June 2011</i>
Title of the Session	Open Data and Knowledge Environment for Innovative Research, Education and Society on Environment in Asia (ODKE)
<b>Collaborators' Information</b>	
1	Name: <b>Prof. GU Xingfa</b> , Country: <b>China</b> <i>Chair of CODATA Task Group of Preservation of and Access to Scientific Data in Developing Counties, Institute of Remote Sensing Applications, Chinese Academy of Sciences</i>
2	Name: <b>Dr. Zhou Xiang</b> , Country: <b>China</b> <i>Institute of Remote Sensing Applications, Chinese Academy of Sciences</i>
3	Name: <b>Dr. Tsolmon Renchin</b> , Country: <b>Mongolia</b> <i>NUM-ITC-UNESCO Environmental RS/GIS Laboratory, National University of Mongolia</i>
4	Name: <b>Dr. Nguyen Dinh Duong</b> , Country: <b>Vietnam</b> <i>Institute of Geography, Vietnam Academy of Science and Technology, Viet Num</i>
5	Name: <b>Dr. Pakorn Aphant</b> , Country: <b>Thailand</b> <i>Chair of Working Group of Information System and Services, Committee of Earth Observation Satellites (WGISS/CEOS), Research and Development Group, GISTDA, Thailand</i>
6	Name: <b>Dr. HEN Shengbo</b> , Country: <b>China</b> <i>Jilin University, China</i>
7	Name: <b>Dr. Tomoko DOKO</b> , Country: <b>Japan</b> <i>JSPS Research Fellow (PD), Yokohama National University, Japan</i>
8	Name: <b>Dr. Wenbo CHEN</b> , Country: <b>China</b> <i>Graduate School of Media and Governance, Keio University, Japan</i>
9	Name: <b>Dr. Togtoh Chuluun</b> , Country: <b>Mongolia</b> <i>NUM-ITC-UNESCO Environmental RS/GIS Laboratory, National University of Mongolia</i>

### **Brief explanation about the session (*including backgrounds*)**

Background: The Joint Project on Open Knowledge and Data Environment in Asia (OKDE) was approved by the 8<sup>th</sup> SCA General Assembly in Qingdao, China in 2008. The first phase of the joint project during the last three years focused on the common understanding why we need OKDE and how to contribute ourselves and to attract more and more peoples to contribute to the OKDE. Two planning workshops were held in Thailand and China separately in 2008 and 2010, and a joint training workshop was held in Mongolia in 2009. Besides SCA partners from Japan, Thailand, China, Mongolia, Viet Nam, three international organizations were participate the joint project, they are: CODATA (Committee on Data for Science and Technology), Working Group of Information System and Services, Committee of Earth Observation Satellites (WGISS/CEOS), and Asia and Pacific Network for Global Change Studies (APN).

Objectives: The objectives of the workshop are: (1) enhancing the common understanding of the principles and guidelines of open knowledge and data environment for Innovation Research, Education and Society on Environment in Asia (OKDE); (2) presenting progress on OKDE from each of partners, and (3) prototype of joint efforts on OKDE platform - Digital Geomuseum Network of Asia.

### **Targeting Audiences (*including the number of the audience*)**

Besides the joint project partners from Japan, Thailand, Viet Nam, China and Mongolia, more audiences from National University of Mongolia, Mongolia Academy of Sciences will join the workshop. Estimated number of participate including audiences is 50 peoples around.

### **Expected Outcome or Recommendations from the Session**

Two outcomes expected from the joint workshop:

1. Common understanding the principles and guidelines of OKDE;
2. Action Plan from 2011-2015 for establishing OKDE platform- Digital Geomuseum Network in Asia

**Planned finance source of the project (if you have any)**

1. Science Council of Asia
2. Committee on Data for Science and Technology (CODATA)
3. Chinese Association for Science and Technology (CAST)
4. Chinese Academy of Sciences (CAS)

**Sciences Council of Asia**  
**Name of the representative**

*to make a presentation about the workshop at the SCA General Assembly II,  
which is to be held on July 6th, 2011*

*Prof. Liu Chuang, Country: China*

*Affiliation: Institute of Geography and Natural Resources, Chinese Academy of Sciences*

<b>No.2. Session Proposal as a Special Session at the 11<sup>th</sup> SCA Conference</b>	
Anchor's (Proposer's) Information	Name: <i>Prof. Ichirow Kaihotsu</i> , Country: <b>Japan</b> <i>Department of Natural Environmental Sciences, Graduate School of Integrated Arts and Sciences, Hiroshima University</i> Date of Proposal: <i>March 4, 2011</i>
Title of the Session	Monitoring and Prediction for Early Warning against Water-Related Disasters in Asia -Towards Integrated Research
Collaborators' Information	
1	Name: <i>Prof. Jun Asanuma</i> , Country: <b>Japan</b> <i>Terrestrial Environment Research Center, Graduate School of Life and Environmental Sciences, University of Tsukuba</i>
2	Name: <i>Prof. Kaoru Takara</i> , Country: <b>Japan</b> <i>Disaster Management for Safe and Secure Society Research Division, Disaster Prevention Research Institute, Kyoto University.</i>
3	Name: <i>Prof. Tetuzo Yasunari</i> , Country: <b>Japan</b> <i>Hydrospheric Atmospheric Research Center, Nagoya University</i>
4	Name: <i>Ass.Prof. Liikun Ai</i> , Country: <b>China</b> <i>IPO: International Program Office, Institute of Atmospheric Physics (IAP), Chinese Academy of Science (China)</i>
5	Name: <i>Dr. Thada Sukhappunnaphan</i> , Country: <b>Thailand</b> <i>Director, Hydrology and Management Center for Central Region, RID (Royal Irrigation Department): Royal Irrigation Department</i>
6	Name: <i>Prof. Muhammad Dirhamsyah</i> , Country: <b>Indonesia</b> <i>Director, Tsunami and Disaster Mitigation Research Center (TDMRC), Syiah Kuala University, Tsunami Ground Zero, TDMRC Building</i>
7	Name: <i>Prof. Basandorj Davaa</i> , Country: <b>Mongolia</b> <i>Mongolian University of Science and Technology</i>
8	Name: <i>Davaa Gombo</i> , Country: <b>Mongolia</b> <i>Director of Hydrology Division, Institute of Meteorology and Hydrology, Ministry of Environment</i>

**Brief explanation about the session (including backgrounds)**

Rapidly growing population and improving standard of life are increasing risks against water-related disasters in Asia. Impact of climate change, as projected with computer models, will accelerate these tendencies. This session will cover



water hazards, namely floods and droughts. Zud, a natural disaster specific to Mongolia, will be also within the coverage. In the session, current status of their monitoring and prediction and actions for mitigation will be focused. Each of the two sessions will have around 5-7 speakers who will introduce experiences in their countries, and their future plan. The following discussion session will be devoted to possible cooperation in the future.

**Targeting Audiences (including the number of the audience)**

From local communities, researchers, engineers, and university teachers as well as graduate students in related fields are expected audiences. Forty to fifty in total.

**Expected Outcome or Recommendations from the Session**

The session will make up a scoping view of water-related disasters in Asia, and then will identify challenges currently being faced. As to the monitoring, it is still at its primitive stages in Asian countries, use of remote sensing should be promoted. With increasing research capacity, prediction with numerical modeling and early warning system therewith, are growing its potential. Current challenges around prediction and early-warning will be discussed and possible cooperation between the member countries will be identified.

**Name of the representative**

*to make a presentation about the workshop at the SCA General Assembly II,  
which is to be held on July 6th, 2011*

Name: *Prof. Ichiro Kaihotsu,*

Affiliation (country): *Hiroshima University (Japan)*

<b>No.3.</b> Session Proposal as a Special Session at the 11 <sup>th</sup> SCA Conference	
Anchor's (Proposer's) Information	Name: <b>Shozo FUJII</b> , Country: <b>Japan</b> <i>Professor, Faculty of Letters, The University of Tokyo/Council Member, Science Council of Japan, Date of Proposal: 9 February, 2011</i>
Title of the Session	Pop Culture in Asia The landscape of Mongolia -- the formation of a prairie image in East Asia, examining the documentary movie "Crossing Mongolia" made in the 1920's and the latest Mongolian movie
Collaborators' Information	
1	Name: <i>Prof. Mamie MISAWA</i> , Country: <b>Japan</b> <i>College of Humanities and Sciences, Nihon University</i>
2	Name: <i>Ass.Prof. Saho HIROKAWA</i> , Country: <b>Japan</b> <i>Faculty of Humanities, Niigata University, Japan</i>
3	Name: <i>Prof. KIM Yangsu</i> , Country: <b>Republic of Korea</b> <i>Department of Chinese Language and Literature, Dongguk University, Republic of Korea</i>
4	Name: <i>Ass.Prof. Uganda KWAN</i> , Country: <b>Singapore</b> <i>Chinese Division, Nanyang Technological University, Singapore</i>
5	<i>Mongolian film researchers/film makers (to be introduced)</i>

**Brief explanation about the session (including backgrounds)**

**1. Content**

The documentary film "Crossing Mongolia", which was produced by the Japanese USU MASUZOU and USU MORIJI when they traveled with the Mongolian Royalty from Beijing to Mongolia around 1925, and has now been restored and preserved by the College of Humanities and Sciences, Nihon University.

It includes various shots of Mongolian society at that time : such as the shots of Mongolian markets, Mongolian wrestling, and hunting by the Mongolian Royalty etc.

On the other hand, Mongolia these days has many feature films and documentaries produced by Mongolian people themselves.

In our session, we will take up the documentary film "Crossing Mongolia" and the latest Mongolian film, and through examining these specific films, explore

how the prairie image of Mongolia in East Asia has been formed.

As lecturers, we will invite Dr. HIROKAWA who discovered the film “Crossing Mongolia”, and a Mongolian researcher/film-maker for the latest Mongolian film.

As for a Mongolian researcher, we would like to ask the National University of Mongolia to select a suitable person. As for the discussants, we will invite researchers/film-makers from Korea and Singapore besides Mongolia.

The language at our session is basically English, and we would like to make good use of interpretation between English and Mongolian, if necessary.

## **2. Time Table**

Morning session

Presentation 1: SAHO HIROKAWA’s lecture on the documentary film “Crossing Mongolia”, and screening a part of the film

Commentary 1: Mongolian researcher/film-maker (A)

Afternoon session

Presentation 2: Mongolian researcher/film-maker (B)’s lecture on the latest Mongolian film  
Commentary 2: KIM YANG-SU (Korea)  
Commentary 3: UGANDA KWAN (Singapore)

Discussion and Q&A

Chaired by MAMIE MISAWA

## **3. Our wishes as regards Mongolian researchers/film-makers and interpreter**

We’d like to ask the National University of Mongolia/the Mongolia-Japan Center for Human Resource Development to introduce us to the Mongolian researcher/film-maker (A, B). At the same time, we’d ask the Science Council of Asia (SCA) Secretariat to arrange interpreters for English-Mongolian interpretation.

## **4. Reference material related to the film “Crossing Mongolia.” from Kyodo News(2003/12/29 06:33).**

“Reviving image of 80 years ago: the daily life of Inner Mongolia”

The documentary film shot 80 years ago by USU MASUZO(1878-1940), who went to the Chinese Continent and was renowned as “Japanese mounted bandit,” is going to be restored by the College of Humanities and Sciences, Nihon University. This film has many shots of daily life in Inner Mongolia (today’s Inner Mongolia Autonomous Region) at that time. The university person

concerned says “There is little documentary film shot in Inner Mongolia at that time. In that sense, this film has scarcity value to know the relationship between Mongolian and Japanese in those days. We’d like to examine the proper way to put it on view to the public.”

USU MASUZO was born in TSUGAWA town of NIGATA prefecture, and was brought up in a merchant’s house in SHIOKAWA town of FUKUSHIMA prefecture. He ran away from his house at the age of 24 and went to the Korean peninsula. Doing trade business, got to be familiar with he private army “Chinese mounted bandit.” Later he and his nephew USU MORIJI had something to do with the independent movement in Manchuria and Inner Mongolia.

The film was shot by USU MASUZO and USU MORIJI around 1925, when they traveled with Mongolian Royalty from Beijing to Mongolia. According to the list of its subtitles, the film includes the shots of Mongolian markets where they exchanged sheep’s wool and daily goods, Mongolian Wrestling, and hunting by Mongolian Royalty.

Name of the representative *to make a presentation about the workshop at the SCA General Assembly II, which is to be held on July 6th, 2011*

To be announced

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<b>No.4. Session Proposal as a Special Session at the 11<sup>th</sup> SCA Conference</b>	
Anchor's (Proposer's) Information	Name: Prof. Sukhbaatar Bilgee, Country: Mongolia Professor, Mongolian University of Science and Technology Date of Proposal: March 1, 2011
Title of the Session	"Developing E-Science in Asia"
Collaborators' Information	
1	Name: <b>Dr. Odgerel Ulziikhutsag</b> , Country: <b>Mongolia</b> <i>Director, Information, Communications Technology &amp; Post Authority (ICTPA)</i>
2	Name: <b>Dr. Batkhishig Luvsan-Osor</b> , Country: <b>Mongolia</b> <i>Director, School of Information and Communication Technology, MUST</i>
3	Name: <b>Dr. Tan-HsuTan</b> , Country: <b>Chinese Taipei</b> <i>Taipei Dean, National Taipei University of Technology</i>
4	Name: <b>Dr. Yuji INOUE</b> , Country: <b>Japan</b> <i>Honored Doctor, Mongolian University of Science and Technology,</i>
5	Name: <b>Prof. Kang Jung Sun</b> , Country: <b>Korea</b> <i>Ulsan University, Korea</i>
6	Name: <b>Dr. Baasan Nergui</b> , Country: <b>Mongolia</b> <i>Institute of Informatics, Mongolian Academy of Sciences</i>
7	Name: <b>Prof. Simon C. Lin</b> , Country: <b>Chinese Taipei</b> <i>Taipei Project Director, Academia Sinica Grid Computing Centre</i>
8	Name: <b>Mr. Han-Wei YEN</b> , Country: <b>Chinese Taipei</b> <i>Taipei Academia Sinica Grid Computing Centre</i>

#### **Brief explanation about the session (including backgrounds)**

The special session "Developing E-Science in Asia" at the 11<sup>th</sup> Science Council of Asia Conference has been proposed by the President of the Mongolian Academy of Science. The main objective is to seed and disseminate information on e-science throughout Asia including Mongolia. Evaluate current developments of E-Science in Asian countries and in the world as well, and exchange views on possibility to establish Asian e-Science network.

#### **Targeting Audiences (including the number of the audience)**