



APPROVED.



Ph.D. SARANTUYA.G, DIRECTOR OF IRIMHE

## REGIONAL WORKSHOP ON UNDERSTANDING THE OPERATIONAL ASPECTS OF THE DROUGHT OBSERVATION SYSTEM IN MONGOLIA

**Conference topic:** The conference is to introduce drought observational system that is being implemented under the ongoing project and cooperation on “Strengthening Mongolia’s capacity to monitor and warn drought/*Dzud*”, under the Regional Drought Mechanism in which Mongolia is the pilot country in North and East Asia.

**Context of the Conference:** Drought is a slow onset disaster affecting many countries in the Asia-Pacific region with adverse impacts on the socio-economic conditions of the farming communities. With the increasing frequency of drought in the region, most countries have faced with tremendous challenges in drought preparedness particularly in monitoring and early warning. In addressing such challenges, ESCAP has operationalized the Regional Cooperative Mechanism for Drought Monitoring and Early Warning (the Regional Drought Mechanism) to provide space-based data, products and services, and strengthen capacity of member States in addressing gaps in monitoring and early warning of agricultural droughts. Following the request to ESCAP from Mongolia for pilot of this Mechanism and on regional advisory services for disaster preparedness, a project was developed together with the Mongolian National Remote Sensing Center (NRSC) of Information and Research Institute of Meteorology, Hydrology and Environment (IRIMHE) of Mongolia, with the support of the three Regional Service Nodes of the Mechanism in China, India and Thailand to enhance its capacity to monitor and detect drought/*dzud*. This has resulted in the installation and operationalization of the *Dzud* Monitoring System with technical support from the Institute of Remote Sensing and Digital Earth (RADI) of the Chinese Academy of Sciences. The capacity of NRSC has been enhanced while appropriate drought indicators have been identified based on Mongolia’s unique climate and landscape.

**Aim of the workshop:**

- 1) To introduce the Drought/*Dzud* Monitoring System and its components to different ministries, agencies, scientific institutes and international projects/programmes;
- 2) To discuss the future work plan on *Dzud* monitoring and for agriculture development in Mongolia;
- 3) To learn from other countries on good practices;
- 4) To officially hand over the system to Mongolia (pending the decision to be made by RADI and IRIHME).

**Date:** September 17, 2018

**Place:** Ulaanbaatar, Mongolia

**Venue:** Holiday Inn Hotel, 19<sup>th</sup> floor, Meeting room-5

**Total number of participants:** 30 including international participants

**Arrangement:**

United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP), Information and Research institute of Meteorology, Hydrology and Environment (IRIMHE), and RADI have participated in the project on “Strengthening Mongolia's capacity to monitor and warn drought / *dzud*” within the framework of the cooperation between 2013 and 2018, resulting in the installation and operationalization of DroughtWatch system and providing the drought products and services to IRIMHE. Based on the outcome of this project, the regional workshop will be held to showcase the products and services that the system is delivering to different ministries, agencies and other projects/programmes and how it has been able to enhance the capacity of IRIHME in improving drought/*dzud* monitoring and early warning for Mongolia. Finally, the system will be officially handed over to IRIHME by UNESCAP and RADI for future drought/*dzud* monitoring in Mongolia.

The detailed programme of the workshop and the participants list has been provided in the Appendix 1 and 2.

## Appendix 1: Workshop Program



### “REGIONAL WORKSHOP ON UNDERSTANDING THE OPERATIONAL ASPECTS OF THE DROUGHT OBSERVATION SYSTEM IN MONGOLIA” PROGRAMME

**Meeting chairman:** Mr. Khudulmur Sodov (Remote sensing leading expert)

Time	Topic	Speakers
<b>08.30 - 09.00</b>	<b>Registration</b>	
<b>09.00 - 09.10</b>	Opening workshop	Ph.D. Sarantuya. G (Director of IRIMHE)
<b>09.10 – 09.30</b>	Regional Drought Mechanism	Mr. Keran W.
<b>09.30 – 09.40</b>	Question & Answer	
<b>09.40 – 10.00</b>	Address by CAS	Gong Haihua, Division chief
<b>10.00 - 10.10</b>	Question & Answer	
<b>10.10 – 10.40</b>	<b>Tea break</b>	
<b>10.40 - 11.00</b>	DroughtWatch, Experiences	Prof. Wu Bingfang, RADI
<b>11.00 - 11.10</b>	Question & Answer	
<b>11.10 - 11.30</b>	Drought monitoring experiences of India	Mr. Chintapalli Srirama Murthy, ISRO
<b>11.30 - 11.40</b>	Question & Answer	
<b>11.40 - 12.10</b>	<b>Official Handing Over of the System</b>	<b>MET &amp; UNESCAP &amp; RADI &amp; IRIMHE</b>
<b>12.10 - 12.30</b>	<b>Group photo</b>	
<b>12.30 – 14.00</b>	<b>Lunch</b>	
<b>14.00 – 14.20</b>	DroughtWatch method and development	Ph.D. Chang Sheng, RADI
<b>14.20 – 14.30</b>	Question & Answer	
<b>14.30 – 14.50</b>	DroughtWatch localization	Mrs. Bulgan Davdai, RADI
<b>14.50 – 15.00</b>	Question & Answer	
<b>15.00 – 15.20</b>	DroughtWatch external evaluation	Ph.D. Bayasgalan. M
<b>15.20 – 15.30</b>	Question & Answer	
<b>15.30 – 16.00</b>	<b>Tea break</b>	
<b>16.00 – 16.20</b>	DroughtWatch operation	Ph.D. Munkhzul. D, IRIMHE
<b>16.20 – 16.30</b>	Question & Answer	
<b>16.30 – 16.50</b>	Drought and agriculture	Mr. Ganbat. B, IRIMHE
<b>16.50 – 17.00</b>	Question & Answer	
<b>17.00 – 17.20</b>	CropWatch	Prof. Wu Bingfang, RADI
<b>17.20 – 17.30</b>	Question & Answer	
<b>17.30 – 17.40</b>	Closing workshop	Mr. Khudulmur. S, IRIMHE
<b>17.40 – 20.00</b>	<b>Reception</b>	

## Appendix 2: List of participants

Sr. No.	Name	Designation	Organization	Email Address
1	Mr. Keran Wang	Chief of Space Application Section	UNESCAP	wangk@un.org
2	Mr. Sung Eun KIM	Programme Officer	UNESCAP	kim54@un.org
3	Mr. Rishiraj Dutta	Consultant Economic Affairs	UNESCAP	rishiraj.dutta@un.org
4	Prof. Wu Bingfang	Professor	RADI	wubf@radi.ac.cn
5	Ass Prof. Chang Sheng	Assistant Professor	RADI	changsheng@radi.ac.cn
6	Mrs. Bulgan Davdai	Remote Sensing Specialist	RADI	bulgan@radi.ac.cn
7	Mr. Chintapalli Srirama Murthy	Head, Agricultural Sciences and Applications	NRSC-ISRO	murthy_cs@nrsc.gov.in
8	Ph.D. Gong Haihua	Division Chief for Central Asia and Europe, Bureau of International Cooperation, Chinese Academy of Science	CAS	hhgong@cashq.ac.cn
9	Mr. Enkhtuvshin Sevjid	Director – General	NAMEM	senkhtuvshin59@gmail.com
10	Ph.D. Sarantuya Ganjuur	Director	IRIMHE	sar_od@yahoo.com
11	Mr. Khudulmur Sodov	Leading Expert, Remote Sensing Division	IRIMHE	mtt@magicnet.mn
12	Mr. Odbayar Mishigdorj	Head, Remote Sensing Division	IRIMHE	m.odbayar@gmail.com
13	Mr. Elbegjargal Nasanbat	General Technologist, Remote Sensing Division	IRIMHE	n.elbegjargal@gmail.com
14	Ph.D. Munkhzul Dorjsuren	Specialist, Remote Sensing Division	IRIMHE	nominzulaad@gmail.com
15	Mrs. Erdenetsetseg Baasandai	Head, Agrometeorological Research Division	IRIMHE	erdsetseg@yahoo.com
16	Mr. Ganbat Bavuudorj	Engineer, Agrometeorological Research Division	IRIMHE	ganbat_bavuudorj@gmail.com
17	Mrs. Gantsetseg B	Engineer, Agrometeorological Research Division	IRIMHE	gantsetseg2015@gmail.com
18	Mrs. Barkhas B	Engineer, Agrometeorological Research Division	IRIMHE	b.barkhas@gmail.com
19	Ph.D. Bayasgalan Mijiddorj	Expert		mbs_999@yahoo.com
20	Mrs. Bulgamaa D	Project leader	“Greengold” project	bulgamaa@greengold.mn

21	Ph.D Mandakh Nyamtseren	Expert	Institute of Geology and Geoecology	n.mandakh@gmail.com
22	Ph.D Bolorchuluun	Lecturer	National University of Mongolia	bolorchuluun@gmail.com
23	Ph.D Batbileg	Lecturer	MULS	batbileg@mul.s.edu.mn
24	Ph.D Tuya	Lecturer	MUST	s_tuya20@yahoo.com
25	Mr. Odonkhoo	Senior specialist, Land Policy Implementation and Coordination Department	MOFA	
25	Mr. Baymbadorj	Specialist, Livestock Policy Implementation and Coordination Department	MOFA	
26	Sr. Sergelen R	Specialist, Environment and Natural Resource Management Department	MET	
27	Sr. Tsedevsuren B	Specialist, Land Management and Water Policy Coordination Department	MET	
28	Ms.Ariuntsetseg E	Senior specialist, Administration and Management Cooperation Department	ALAGAC	ariuntsetseg.e@gazar.gov.mn
29	Ms. Munkhtsetseg D	Specialist, Base Survey Monitoring Department	ALAGAC	munkhtsetseg.do@gazar.gov.mn
30				