

## Workshop summary – advanced draft

Impacts of Land-Use Change and Climate Change on Nomadic Herders:  
Linking reindeer and yak herders



Workshop summary – advanced draft

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## **1 Issues discussed – challenges and possibilities**

### **1.1 Livestock in Mongolia**

After 1990 livestock was privatized. Between 1990-2005 the portion of goats in the herds increased by 20-43%.

Over-grazing is defined as a national challenge and a reason for land degradation.

In the east taiga there are wild reindeer.

### **1.2 Reindeer husbandry in the taiga**

The biggest difference between tundra and taiga husbandry is the size of the herds. It is not possible to have the same herds in the taiga area. In the tundra husbandry, meat production is the only purpose of the reindeer. In the taiga, meat production is combined with other activities like hunting and trapping.

Taiga reindeer husbandry has an importance for many small Indigenous Peoples and communities. There are 11 taiga reindeer husbandry regions in Mongolia and Russia. Taiga reindeer husbandry is of ancient origin but there is little information in literature about it and its use of pastures.

Changes have happened in the last 50-100 years that have impacted all taiga reindeer husbandry regions. There are reasons to believe that taiga reindeer husbandry is at its most vulnerable today.

Yet, there is a potential for sustaining the husbandry in most areas. This is why WRH has identified the taiga as a priority area (ref declarations of the 3<sup>rd</sup> and 4<sup>th</sup> Congress of the World Reindeer Herders<sup>1</sup>).

Taiga reindeer husbandry is part of the world heritage and represents an important part of human history. Russia and Mongolia own the taiga husbandry and should take responsibility. Protecting and preserving the traditional ecological knowledge (TEK) of the taiga herders is useful both for the herding community itself and the rest of the world community.

### **1.3 Reindeer husbandry in Mongolia**

#### **1.3.1 Current state and carrying capacity**

With the privatization of the herds in 1998 reindeer husbandry became more challenging. There was an increase from 60 to 500 herders. Currently, there are 40 reindeer herder families and approximately domesticated 1500 animals reindeer in the Mongolian taiga. Last year they celebrated 1000-reindeer festival.

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[http://icr.arcticportal.org/index.php?option=com\\_content&view=article&id=147&Itemid=41&lang=en](http://icr.arcticportal.org/index.php?option=com_content&view=article&id=147&Itemid=41&lang=en)

Although the number of reindeer is increasing, the number of herders is decreasing. In order to secure sustainable communities and livelihoods, it seems the most important is to further increase the number of livestock in each herd. Participants argued that with 50 animals a household would be maintained. And the carrying capacity of the taiga allows for an increased number of livestock.

International organizations have put focus on health of reindeer and improved the livelihood of reindeer. The local authorities work with the university and have access to a veterinary and a biologist.

Since 1986 there has been studies on vegetation changes due to climate change in the region. And for the last ten years there have been studies on two high mountain ranges that have both reindeer and yak pastures. Yak pastures seem to improve. Other pastures are degraded because of climate change. 42% of the lakes are shrinking. Precipitation has increased by 50%. There is more snow during the winters. Fires alter the vegetation. The slaughter weight is impacted.

The current trend is that 1400 animals stay in one place for a long time causing land degradation. Migration and access to pastures are influenced by a number of factors like access to social services, tourism, protected areas, laws and regulations, as well as legal rights of the herders.



Photo: Svein D. Mathiesen, ICR

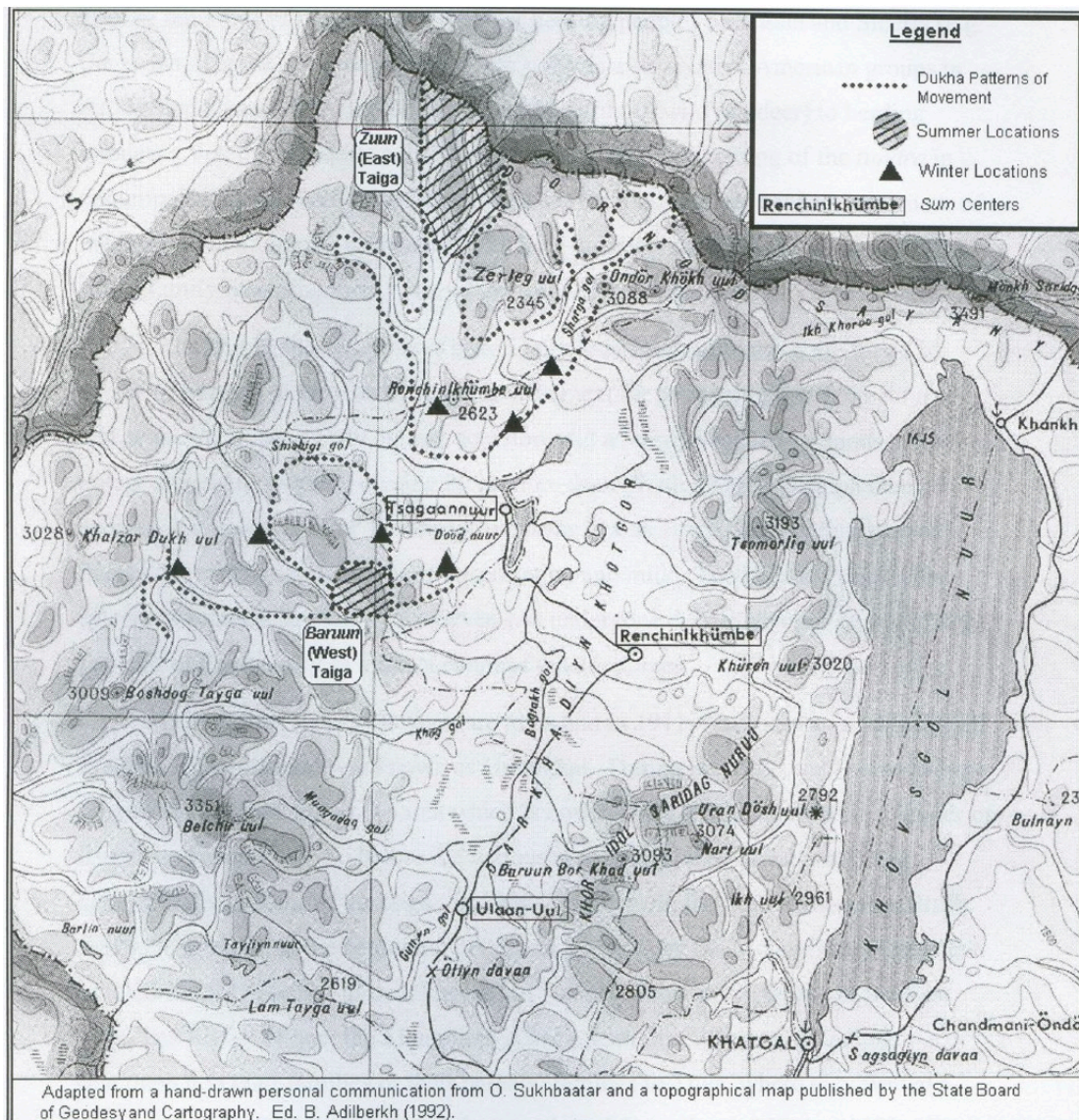
### **1.3.2 Access to social services**

It is expensive sending children to school because for the distance, travel costs and living expenses. Normally parents can afford sending only one child to school. Participants argued that formal education is important, but first priority is to increase the number of herders to make the communities sustainable. They also argued that with a better social system it would be easier to increase the herds.

The good pasture is far away from social services like schools and health care and therefore it is challenging to utilise these pastures. During the 1950s, people



from Russia settled in the Mongolian taiga. They lived close to the boarder. However, in the 1970s they where attracted to the soum centres to have better access to health service, schools, etc.



Source:

[http://www.unescobkk.org/fileadmin/user\\_upload/culture/Cultural\\_Mapping/Khovsgol%20Case%20Study.pdf](http://www.unescobkk.org/fileadmin/user_upload/culture/Cultural_Mapping/Khovsgol%20Case%20Study.pdf)

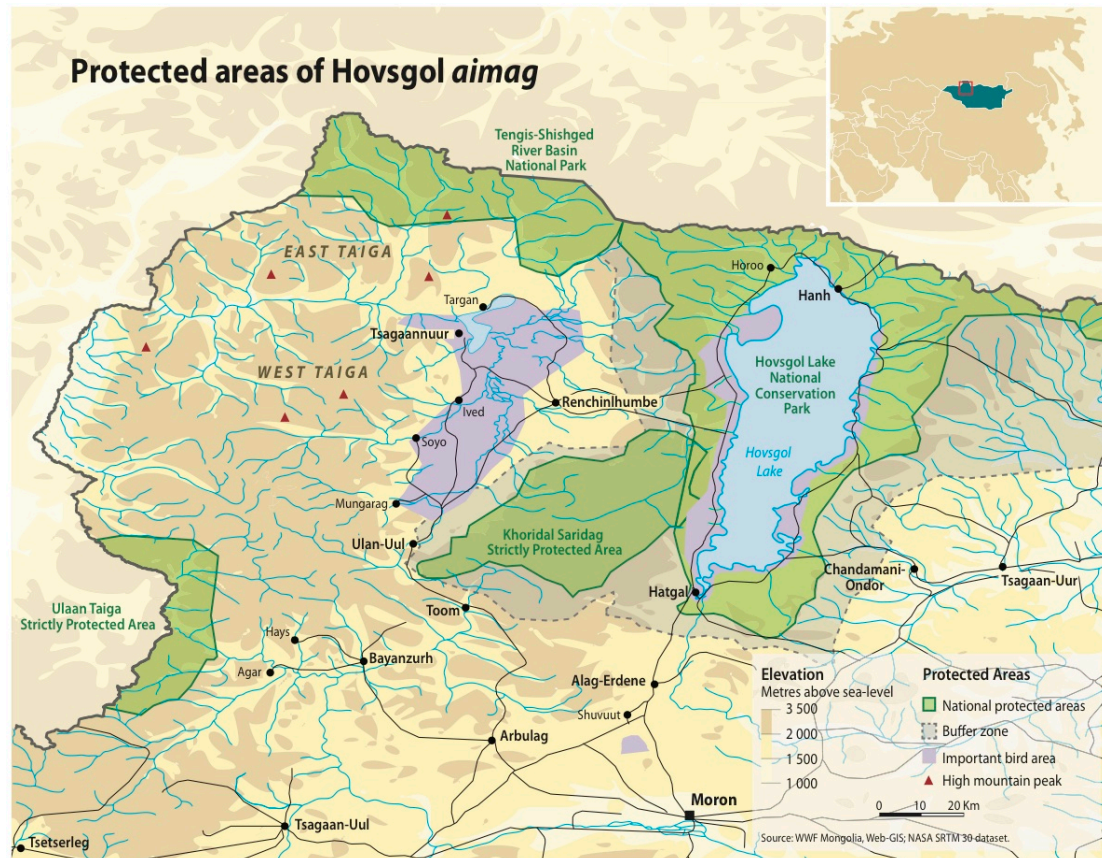
### 1.3.3 Mining and logging

In Ulaan-Uul gold mining creates challenges for yak herders in their winter pastures, and since 2008 also in the summer pastures. The river bank is not used as reindeer pasture. The mining has increased during the last three years. There are approximately 2000 illegal, artisanal miners (called ninja miners) dig for gold in the area. The hand-miners cut the forest for fuel causing heavy deforestation. Some have gold detectors. They might also be using chemicals like mercury. By law, they can only use water to extract the gold. The mining areas can only be accessed by reindeer/horse. The hand-miners get to the sites by riding. The miners are self-organized, there is no company operating in the area.



Human waste from the miners is an additional problem. Because of the remote sites, it is difficult for authorities to follow up on regulations.

Also in areas in the east taiga there is illegal hand-mining. In the west taiga towards the boarder to Russia, there is a white jade mountain. Here, the wild reindeer has disappeared. This mining affects the quality of pastures.



Cartographer: Riccardo Pravettoni

### 1.3.4 Protected areas

Protected areas protect against mining but also affects herding negatively. The vegetation is suitable for grazing in several places of the taiga but some areas have been defined as protected areas. There are also the buffer zones to the Russian boarder that cannot be used for grazing.

The regulations/law for protected areas are being evaluated. There might be a new system for protection that classifies uses of the land and resources. The result might be that there will be different regulations for the core area and the rest of the protected area.

### 1.3.5 Income generating activities

#### Reindeer

It is unclear how the market for reindeer meat, skins and other reindeer product is in Mongolia, and how available this market is.

Reindeer meat is regarded as very healthy. The milk is recognised for being a medical remedy and could potentially be a source of income. Antlers are exported to Germany.

#### Hunting

Traditionally the pastoralists' livelihood was a combination of reindeer herding and hunting. Hunting gave meat and income. However, hunting is now restricted. According to the law it is illegal to hunt and the herders' income comes purely from reindeer. This is challenging!

Poaching is a problem. Items are exported to China. In the past two years wild life has increased because alternative income activities have been available but currently, poaching is increasing again.

#### Tourism

There is a potential for combining reindeer herding and tourism. But currently herders stay too long in one area to be close to the tourists. A consequence is degraded pastures. The number of tourists is decreasing, probably because of poor infrastructure and logistical capacity in the region. There is little support to improve the situation.

#### Other

Collect medicine plants as an extra income.

### **1.3.6 Diseases**

Different areas have different diseases but generally climate change has caused more diseases and parasites amongst livestock, dogs and humans. For example, the amount of ticks has increased. In the old times reindeer did not have ticks. Ticks also come from horses used by the tourists, other livestock (reindeer is grazing closer to other livestock than before), and from hunting trips.

There are fewer diseases in the reindeer and yak pastures in the high mountain areas. But due to yak grazing in lower altitudes and because of global warming, also the yak has more diseases now.

### **1.4 Yak husbandry in Mongolia**

There are good reasons for linking yak and reindeer husbandry in one project. They graze on neighbouring pastures (yak stays normally 2500 metres above sea level), both livestock have a limited distribution and both livelihoods are threatened. All types of livestock in Mongolia are increasing except yak. 25% of the animals have disappeared.

## **2 Key messages from Mongolia's GEF operational focal point**

### **Summary of statements made by Mr. Enkhbat, 15<sup>th</sup> and 16<sup>th</sup> December**

Climate change is a priority in Mongolia. In the last 70 years, the temperature in Mongolia has increased three times more than the global average. Though there

is more precipitation during winter-time, there is still 10-20% less precipitation in the country. Deeper snow in winter is challenging for livestock. Summers are dryer. National plans for adaptation are being developed.

The Mongolian GEF portfolio includes activities related to protected area management, community-based activities, and secured livelihoods.

There is a growing need to preserve the taiga pastures and nature. The most vulnerable livelihood is identified as reindeer husbandry. Many organisations have made an effort to support the taiga communities but there are few tangible results. However, it has been challenging to improve the situation in the taiga. I hope *Nomadic Herders* project can address the challenges in this region and focus on sustainable livelihoods and ecosystems.



Photo: Svein D. Mathiesen, ICR

The fact that herders are involved from the start and participate in designing the initiative, makes me believe this will become a realistic project. But it is important to not develop false hopes, and to ensure that the outcomes are practical. I suggest, as one of the first activities, to make a reindeer husbandry assessment of the Mongolian taiga. The Taiga Nature Society and the Association of World Reindeer Herders will be important partners in this activity. This assessment could become a national report and could further support a GEF project.

The Ministry of Nature, Environment and Tourism supports the project, and the Mongolian GEF department also fully supports the initiative. I like the idea of



engaging and exchanging students from the pastoral communities. The taiga students could lead this type of activities in the future.

Mongolia would like to partner with you on a joint GEF proposal with Russia with UNEP as the implementing agency. The Ministry invites the herders to be partners of the project. This first workshop has gathered the participants' input. From the Mongolian side, Mr. Tsogtsaikhan has been involved in developing the draft proposal. As soon as there is a final version, Mongolia is ready to issue an endorsement letter.

### **3 Conclusions**

#### **3.1 Project success factors**

- Identify herders' needs (most projects forget to identify the peoples' needs)
- Set goal up front (in our case: improve the quality of life from the herders' perspective)
- Leadership by local and Indigenous peoples – participation on equal basis
- Have a good cooperation with local and national government.

#### **3.2 Mongolian needs**

- Policy and action plans
- Capacity building and training
- State of the art technology
- Interested in discussing impacts

#### **3.3 Needs identified by the workshop participants**

##### **3.3.1 Institutional development**

- Build professional institutions that can support reindeer and yak husbandry and herders. There is no official organization for yak herders. There is an organisation of yak scientist. There is a need to revitalize the research activities on yak.
- Build educational institutions. There will be a win-win situation by exchanging students from the reindeer herding communities across borders. This could also help recruit new herders.

##### **3.3.2 Monitoring**

- Future monitoring programme for taiga to ensure that we are aware of developments.
- Legal rights to pastures... Need for a monitoring system...

##### **3.3.3 Partnership building**

- Create dialogue and share information with industry and other competitors for land resources.

#### **3.3.4 Strengthening the livelihoods**

- Identify additional income opportunities (e.g. from eco-tourism and selling handicraft) and alternative foods (to cope with hunting restrictions).
- Identify ways to increase the herds.
- Identify ways to strengthen herder's rights to pastures.

#### **3.3.5 Expert needs**

- Identify yak-herding experts. We need to include people from the yak herding communities – engage the youth and be community-based.
- Identify an expert on nomadic legislation and law

#### **3.4 GEF proposal development**

- The proposal should be translated and shared with herders and scientist for feedback.
- Identify practical project outcomes.
- Use the GEF project as a tool to strengthen the yak and reindeer herder community.

#### **3.5 Community-based workshop in 2011**

- June was identified as a suitable time for holding community-hosted workshops. At this time herders are milking and preparing for summer camp, and the students have their holidays. (There are seven youth from reindeer herding families study in Ulan Bator.)
- One workshop can be held in the soum centre of Tsagaannuur and will have a focus on reindeer husbandry.
- The other workshop can be held in the soum centre of Ulaan-Uul with a focus on yak husbandry.
- Need to identify hosts and participants of the two workshops. Confirm dates and content, and clarify expectations.
- Need to identify a focal point in Tsagaannuur and Ulaan-Uul.

#### **3.6 WRH information centre**

- WRH wish to build an information centre for reindeer husbandry in the Mongolian taiga.
- They will explore the possibilities for cooperating/building on the existing centre, the *Tsaatan Community & Visitors' Center* ([http://itgel.org/visitors\\_center.htm](http://itgel.org/visitors_center.htm))
- The local government will be sponsoring the existing information centre until 2015. 20,000 million MNT is allocated to build a museum/informational centre

#### **3.7 Unanswered questions**

- What is the density of livestock in the taiga?
- Is there available a detailed map of deforestation and desertification in Mongolia?
- Gender issues?

- Is inbreeding a problem? Scientist disagree
- Are there any students from yak herding families?
- Are predators a problem for yak and reindeer husbandry?
- It is possible to change the hunting law with the right arguments?
- Could one outcome of the project be a cooking book? Teaching people how to use reindeer meat in cooking?
- Does Mongolian law recognize herders as part of the ecosystem? What are the herders' rights to pastures? Can they access protected areas? What about the buffer zones?
- To what degree are other economic activities like mining and tourism impacting yak/reindeer husbandry?



Photo: Svein D. Mathiesen, ICR

## 4 Annexes

### 4.1 Workshop programme

Ulaanbaatar hotel, Kharhorin meeting hall

Moderator: Mikhail Pogodaev – Russia

Co-moderator: Tsogtsaikhan Purev – Mongolia

#### December 15<sup>th</sup> (Wednesday)

- 09:20-09:50 Meeting with the Mr Ch Jargalsaikhan, Vice Minister of Nature and Environment and Tourism of Mongolia
- 10:30-11:00 Registration of participants
- 11:00 **Opening of the workshop**
- Welcome remarks from the Ministry of Natural Resources
  - Welcome from the World Reindeer Herders Association
  - Welcome from the UNEP/GRID-Arendal
- 11:15 Beginning of the workshop
- 11:20-11:35 **Strengthening the resilience of local communities, their livelihoods and pastures to better adapt to climate change and other types of changes**
- Dr. Svein Disch Mathiesen, professor of the UArctic EALAT Institute for Circumpolar Reindeer Husbandry
- 11:35-11:50 **Current trends in land degradation, specifically desertification and deforestation in Mongolia**
- P. Tsogtsaikhan, Ministry of Nature and Environment of Mongolia
- 11:50-12:05 **Reindeer husbandry in a changing world**
- PhD Mikhail Pogodaev, Chair of the WRH
- 12:05-12:20 Coffee-break
- 12:20-12:35 **Challenges of taiga reindeer husbandry**
- Johan Mathis Turi, Secretary General of World Reindeer Herders Association, Chair of the International Centre for Reindeer Husbandry
- 12:35-12:50 **Challenges and opportunities of Reindeer husbandry of Mongolia**
- Battulga Solnoi, Taiga Nature Society
- 12:50-13:05 **GEF strategy for conservation, sustainable use and management of ecosystems and natural resources**
- Kathrine Ivsett Johnsen, Deputy Manager, Polar Programme, UNEP/GRID-Arendal, Norway
- 13:05-14:00 **Lunch**
- 14:00 Continuation of the workshop
- 14:00-14:15 **Pastureland of high mountain area of Khovsgol mountains of Mongolia**
- PhD Oyumaa J, Botanist
- 14:15-14:30 **Challenges and opportunities of Yak herding in Mongolia**
- Professor S.Ganbold, School of the Veterinary and Biotechnology of Agriculture University, Mongolia
- 14:30-14:45 **High mountain ecosystem of Khovsgol Region**



	PhD D. Enktaivan and MSc S. Narangerel, Geographical Institute of Mongolian Science of Academy
14:45-15:00	Tea break
<b>15:00-16:00</b>	Discussion about presentation /Questions and answer/Conclusion
19:00-20:00	Dinner (with officials)
<b>December 16<sup>th</sup> (Thursday)</b>	
10:00-10:30	<b>Presentation of the international project Nomadic Herders: Enhancing the resilience of tundra, taiga and mountainous ecosystems of Russia and Mongolia</b>
	Kathrine Ivsett Johnsen, UNEP/GRID-Arendal and Svein D. Mathiesen, UArctic EALAT Institute for Reindeer Husbandry
10:30-13:00	Round table discussion of the project
13:00-14:00	Lunch
14:00-15:00	Signing a letter of endorsement for the project <i>Nomadic Herders: Enhancing the resilience of tundra, taiga and mountainous ecosystems of Russia and Mongolia</i> by the GEF Focal Point of Mongolia
19:00-20:00	Dinner
<b>December 17<sup>th</sup> (Friday)</b>	
09:00-12:00	Sightseeing of Ulaanbaatar
12:00-13:00	Lunch

## 4.2 Participant list with contact information

Name	Occupation
<b>Mongolian participation</b>	
Mr Jargalsaikhan. Ch	Vice Minister of Nature Environment and Tourism
Mr Enkhbat. A	Director of Division for Ecologically clean technology and science, GEF Focal point
Mr Batbold. D	Director of Foreign cooperation division of MNET
Mr Bayanmonkh	Head of Department for Policy Implementation and Coordination of the Food agriculture and Light industry
Mr Tsogtsaikhan. P	Senior officer of Department for Environment and
Ms Nansalma. J	Reindeer decease researcher of the State Veterinarian and Sanitation Laboratory
Ms Enktaivan D.	Researcher of Geographical Institute of Mongolian Science of Academy
Mr Narangerel.S	Researcher of Geographical Institute of Mongolian Science of Academy
Ms Ouymaa. J	Plant researcher
Mr Ganbat, S	Professor, School of the Veterinary and Biotechnology of Agriculture University, Mongolia
Ms Myagmarjav. Kh	Governor of Tsagaannuur soum
Ms Purevee. D	Reindeer herder of Tsagaannuur soum, East taiga
Ms Tsetsegmaa. G	Reindeer herder of Tsagaannuur soum, West taiga
Mr Ovogdorj. J	Reindeer herder of Tsagaannuur soum, West taiga
Mr Battulga. S	Local representative of Taiga Nature Society
<b>Foreign delegates</b>	
Mr Pogodaev Mikhail Alexandrovich	Chair, Association of World Reindeer Herders
Mr Turi Johan Mathis	Secretary General, Association of World Reindeer Herders, Kautokeino, Norway/ Chair, International Centre for Reindeer Husbandry
Ms Johnsen Kathrine Ivsett	Deputy Manager, Polar Programme, UNEP GRID-Arendal, Norway
Mr Mathiesen Svein Disch	Professor Sami University College, Norway
<b>Workshop secretariat</b>	
Ms Lkhamdulam	Translator
Mr Angaragbayar	Translator
Ms Binderya	Workshop organizer
Mr Altamgadas	Note recorder