

**Summary Report of NEASPEC Capacity Building  
Programme-Training on Combating Desertification for  
Mongolian Trainees  
21-30, September 2013, China**



Sponsors: United Nations Economic and Social Commission for Asia and the Pacific  
National Bureau to Combat Desertification, State Forestry Administration, China

Organizer: Institute of Desertification Studies, Chinese Academy of Forestry  
Forestry Bureau of Chifeng City, Inner Mongolia Autonomous Region

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## 1 Introduction

During 21-30, September 2013, the “NEASPEC Capacity Building Programme-Training on Combating Desertification for Mongolian Trainees” was successfully held in Beijing and Inner Mongolia Autonomous Region, China. It was sponsored by United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) and National Bureau to Combat Desertification(NBCD), State Forestry Administration(SFA), organized by Institute of Desertification Studies(IDS), Chinese Academy of Forestry(CAF), and forestry department of Chifeng City, Inner Mongolia Autonomous Region.

This is the 2<sup>nd</sup> training program on capacity building as an useful and essential approach to address dust and sandstorms (DSS) challenges, with approval of the NEASPEC Programme Planning and Management.

Main objective of the training workshop is to enhance bilateral cooperation between China and Mongolia and give Mongolian participants an opportunity to facilitate the exchange of knowledge and best practices between these two countries on policies, methods and technologies for reforestation involving irrigation system, selection of tree species, restoration of native desert vegetation, maintenance of plantations, etc.

10 Mongolian participants attended the training (Attachment 1: Participant List). They are from a range of professions and background, including government officials, researchers and media representative etc.

## 2 Major Topics of lectures

The training workshop was held between the 22<sup>th</sup> and 29<sup>th</sup> September, 2013 in Beijing, consisting of the first three days in door lectures and discussions and the next five days for a study trip to observe Sand Source Control Programme implementation sites in Chifeng, Inner Mongolia. (Attachment 2: Agenda).

The training workshop was organized around following blocks of topics:

1. Opening speeches;
2. Session 1: PRC’s state policy of combating desertification;.
3. Session 2: China forestry carbon sequestration and carbon trading;

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4. Session 3: Works in direction of combating desertification in concrete regions of PRC, study of experience and afforestation monitoring
5. Session 4: Methods, technology and experience of combating desertification: such as Irrigation in sandy area, combating desertification modes, forest-plantation works, forestry planting species, etc.
6. Session 5: Drylands distribution and desertification-prone areas in China
7. Exchange of views about possibility of bilateral cooperation in regional level.

In the opening ceremony, Mr Luo Bin, the deputy director general of the NBCD and Mr Huang Jian, the deputy director general of CAF, has delivered speeches to welcome participants, explaining purpose of the training. A group photo was taken after the short ceremony.

Mr Luo Bin then gave the first lecture on the desertification control policy in China. He mentioned what the Chinese Government has done on desertification combating during the last decades. In his lecture, he illustrated the following aspects of desertification control in China: (1) current situation in China; (2) achievements and experiences; (3) difficulties and future challenges; and (4) future tasks. He pointed out that China today is advocating for a “ecological civilization” which is becoming one of the important national strategies, and China has also issued the “Desertification Control Law”, the only law of its kind in the world, implying that the country is determined to reinforce desertification control by law. China has set up a comprehensive monitoring system for desertification and has assessed and issued a hundred of desertification control techniques. China has made tremendous achievements in desertification control with awards from the United Nations for the past years. Today China has realized and adopted the approach of combining desertification control with improving livelihood of local communities and people.

Li Nuyun, the secretary-general of China Green Carbon Foundation(CGCF) gave the second lecture of the forestry carbon trade and management in China. She has introduced the policy and standard of China’s forestry carbon management, the research and practices of China’s forestry carbon trade and prospective development. She pointed out that in the future of 30-50, forestry, as important tools for adaptation and mitigation to climate change, is very important measurements with low cost and multi-benefit. However, the CDM forestry projects have too complex accounting and procedures that still need more corporate social responsibilities and public awareness. In her lecture, the methodologies and practices have been emphasized.

Session 3 and 4 contained 5 presentations given by the researcher of IDS. The 1st one is “Restoration of Saxaul Forest: The Chinese Experiences(by Zhu Yajuan) ” . It

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mainly introduced the most popular plant species in China. The 2nd lecture "Afforestation techniques in the arid and semi-arid regions (Prof. Wenbin Yang) and the 3rd lecture" Construction of Shelterbelt System in sandy land (by Jinxing Zhou)" talked about the Forest-plantation works and species of planting plants, methods and technology, including the planting of original desert plants. The 4th one" Restoration technology of the vegetation grown on the degraded land in Qinghai-Tibet Plateau (Dr. Xuequan Wang)" emphasized the irrigation system in arid and semi-arid region.

The 5th lecture "Three chief modes for desertification combating in China (by Qi Lu) explained a model of explained sample models of desertification combating in China., which was lead by government, guaranteed by laws and regulations, supported by science and technology. The models showed the importance and necessity of combating desertification combined with improving livelihood of local communities and farmers. Participants then also raised an important issue of sustainability. Mr. Lu also introduced some practical technologies combating desertification, including the sand fixation technology of mechanical barriers, the sand fixation technology of chemical materials, the sand fixation technology of biological live barriers, the aerial seeding technology and the afforestation technology of combating desertification for railway.

Session 5 has one lecture of "Drylands distribution and desertification-prone areas in China (by Wu Bo)". Desertification-prone areas research now is a popular research field in China. This lecture is to improve the cognition of trainees on the advanced research field.

The Mongolian participants has given 2 presentations: the first one "Mongolian Government policy for Combating Desertification (by Tumenjargal Turbadrakh)" discussed the overall situation, challenges and tasks of desertification control in Mongolia and in the meantime also the need to improve socio-economic developments, and livelihood improvement in particular, since the local people are the main stakeholders for combating desertification. The second presentation reviewed "The current State of the Desertification in Zamyn-Uud and implementing activities" (by Manibadar Bayanmunkh)". The Mongolian participants showed lot interesting in the cooperation programme, such as implementation processes, outcomes, impacts and future prospects. It concluded that they have ambitious goals with strength on the construction on desertification combating city.

It was observed that trainees were interested in the training and actively participated in the lectures and discussions. The knowledge and experience they learned from workshop would help broaden their professional horizon and improve the desertification combating in Mongolia and also benefit the Northeast Asia. The Mongolian trainees mentioned that it was a wise decision that the China government

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focused on setting policies on combating desertification issues which should be spread in the other countries like Mongolia. They are interested of the carbon sequestration which is not popular in Mongolia. They hope to learn the method which are widely used in China and spread to their country. they also discussed the desertification combating in Mongolia is facing 5 problems, such as lack of fund, poor planning, low technology, less utilization of new technology and lack of talents. They have copied 3 laws including Desertification Combating Law, Grassland Law and Soil and Water Conservation Law to help national legislation in Mongolia. Since it has same specials of vegetations in Zamyn-Uud and Inner Mongolia, the participants showed more interesting on the local specials of combating desertification in Inner Mongolia. They discussed a lot of the vegetations and the details of Biological fixation combination with Engineering fixation, mechanical fixation and Chemistry fixation. The participants from the soil institute discussed with Mr. Jinxing Zhou and study the advanced equipment for soil survey in IDS. In Zamyn-Uud, they are doing a water diversion project to satisfy the local water problem. The workshop provided an opportunity for the participants to learn experiences from China.

Topics of the lectures see Attachment 2.

### **3 Field investigation**

A field study was organized as the second part of the workshop to visit a number of sites in the Inner Mongolia Autonomous Region of China to understand the application of the desertification control measures and approaches in the field. Mr. Kilaparti Ramakrishina, the director of the East and North-East Asia Office, ESCAP and Miss Gabrielle Chen, Associate Environmental Affairs Officer of ESCAP, has joined the trip too. Sites visited include: organic agricultural practices in Heiyupaizi Village, which was made possible after desertification control took place to restore vegetation and most importantly, the spring water supply, providing income to local communities; aerial seeding afforestation and seedling nursery in Bairin Right Banner; integrated sand control project of Tuha Line and Sudu Line, where roads were built into the mobile sand dune areas solely to build sand grids with straws to stabilize sand and eventually to grow shrubs for further and long term stabilization; the Uranaodu Ecological Experiment Station for research; as well as the *Picea Mongolica* Nature Reserve in Bayna Obo and Asihatu National Geopark in Hexigten Banner. The field trip provided the opportunity for participants to observe field practices and exchange directly with local professionals on their experiences, technical details and discuss applicability of the desertification control measures in their respective local context.

The trainees evaluated highly and positively the training program on the course and field trip, which brought along them not only the theoretical knowledge but also

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the practices. Through these investigations, trainees were very interested in implementation of the policy on desertification combating, including national and local legislation. They are also interested in the technology of ecological restoration on sandy land and typical case of combination desertification, afforestation and agriculture technology, especially in aerial seeding afforestation, greening, planting high-values species. The trainees fully affirmed the policy of Chinese government, which include arousing the enthusiasm of people on local implementation of the scheme. They thought that Mongolia also should establish the administration of combating desertification, eg. constructing the practical base of combating desertification. Trainees also told us some current questions in Mongolia, eg. no corresponding policy from the government, no fund on combating desertification and no idea of combating desertification for local administrator. According to the experiences from this train program, trainee suggested to continue this type of program, which faced to the current conditions of Mongolia, for improving quickly the knowledge spread and capacity building of combating desertification in Mongolia.

## **4 Concluding remarks**

The training workshop offered an opportunity for Mongolian trainees to learn from the experience of Chinese government and researchers and to reflect on how to improve the desertification combating work in Mongolia. The director from United Nations ESCAP; NBCD, SFA, China; IDS, CAF and Forestry Bureau of Chifeng City, Inner Mongolia Autonomous Region give a high evaluation on this workshop. To sum up the workshop, it was successful in further discussing and debating on desertification control in Mongolia which will impact all over the North-East Asia. ESCAP has made great contributions to Mongolia's desertification control by supporting the opportunity to share and exchange information and experiences and lessons in the workshop. It is expected that it will summarize relevant desertification control information and experiences from the implementation for future training workshop.

## Attachment1: Participants List

Name	Organization	Position	Areas of professional
Ochirkhuyag Azbayar	Department of Environment agency of Dornogobi province	Specialist	
Yadambaatar Baasandorj	Institute of Geo-ecology of MAS	Head of Land Management Division	
Otgonbaya Batjargal	Governor's office Zamiin-uud sum	Officer	
Chultem Bat-Ulzii	Forest Research and Development Center State Owned Enterprise	Specialist of forest database and foreign relationship	Biology
Manibada Bayanmunkh	Governor's office Zamiin-uud sum	Officer	
Badarbal Dorjsuren	Great Gobi "A" Special Protected Area Administration	Conservancy \Specialist	Censorship, Silviculture, Biologic Research
Togooch Narantsetseg	The Green Post Media	Head	
Ochirbat Ankhubayar	Fresh water and ecosystem research institute	Researcher	Land management
Altankhuu Purevkhuu	Governor's office Zamiin-uud sum	Officer	
Tumenjargel Turbadrakh	The National Committee for Soil Protection and Combating Desertification	Officer	



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## Attachment 2: Workshop Agenda

1 <sup>st</sup> day: 21 <sup>th</sup> September	
Morning	Arrival at Beijing (Flight No: OM223). Check-in and registration
12:00	Lunch
Afternoon	Free time
18:00	Dinner
2 <sup>nd</sup> day: 22 <sup>st</sup> September	
07:30	Breakfast
08:30	Start to training center
09:00	Opening ceremony Group Photo
10:30	Training Sessions <ul style="list-style-type: none"> <li>National policy for desertification combating in China(Bin Luo, Vice Director, National Bureau of Combating Desertification, State administration of Forestry )</li> </ul>
12:30	Lunch
14:00	Training Sessions <ul style="list-style-type: none"> <li>China forestry carbon sequestration and carbon trading (Nuyun Li, Secretary general, China Green Carbon Foundation)</li> </ul>
18:00	Dinner
3 <sup>rd</sup> day: 23 <sup>rd</sup> September	
07:00	Breakfast
07:30	Start to training center
08:00	Training Sessions <ul style="list-style-type: none"> <li>Restoration of Saxaul Forest: The Chinese Experience (Dr. Yajuan Zhu )</li> <li>Afforestation techniques in the arid and semi-arid regions (Prof. Wenbin Yang)</li> </ul>

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12:00	Lunch
13:30	<p>Training Sessions</p> <ul style="list-style-type: none"> <li>• Three chief modes for desertification combating in China(Prof. Qi Lu)</li> </ul>
15:30	<p>Participant Presentation</p> <ul style="list-style-type: none"> <li>• Mongolian Government policy for Combating Desertification(Tumenjargal Turbadrakh)</li> <li>• The current State of the Desertification in Zamyn-Uud and implementing activities"(Manibadar Bayanmunkh)</li> </ul>
18:00	Dinner
<b>4th day: 24<sup>th</sup> September</b>	
07:00	Breakfast
07:30	Start to training center
08:00	<p>Training Sessions</p> <ul style="list-style-type: none"> <li>• Restoration technology of the vegetation grown on the degraded land in Qinghai-Tibet Plateau(Dr. Xuequan Wang)</li> <li>• Drylands distribution and desertification-prone areas in China(Prof. Bo Wu)</li> </ul>
12:00	Lunch
13:30	<p>Training Sessions</p> <ul style="list-style-type: none"> <li>• Construction of Shelterbelt System in sandy land(Prof. Jinxing Zhou)</li> </ul>
18:00	Dinner
<b>5th day: 25th September</b>	
07:30	Breakfast/ Check-out in hotel
08:30	Start to travel to Chifeng city at Wuduntaohai Town
<b>6th day: 26th September</b>	
07:30	Breakfast
08:30-11:30	Visit to Heiyupaizi Village- an agricultural village with population of

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	approximately 1,550. The village has rich land and water resources, key agriculture activities include rice cultivation and livestock breeding. Heiyupaizi Village's agricultural system integrates crop growing, livestock breeding, ecological and sand management, as well as environmental protection and tourism.
12:00	Lunch
13:30-17:30	Visit to Tuha Line, Sudu Line Comprehensive sand control project. The Tuha Line is a typical desertification control demonstration project which covers an area of 300,000 mu (approx. 200km <sup>2</sup> ) with 4 core areas along a trans-desert highway since November 2009. This highly successful project has adopted the use of aerial seeding, closed reforestation and artificial reforestation measures. The Sudu line is another desert-land integrated management project along a trans-desert highway within Ashihan Sumu. It covers an area of 400,000 mu (approx. 267km <sup>2</sup> ), ie 60% of sand land within the Sudu-Ashihan Sumu area.
18:00	Dinner
<b>7th day: 27th September</b>	
07:30	Breakfast
08:30-11:30	Visit to Uranaodu Ecological Station, built in 1975, has a typical northern temperate semi-arid climate, locates at a ecologically fragile area under severe threat of desertification. The Urandaodu Desertification Experimental Station is key to research on reconstruction of deteriorated ecological system and other serious ecological challenges through integrating the use of various biological and engineering technology. The Station joined the National Forestry Bureau Desertification Monitoring Network in 2000 and has received a number of research awards in China with over 30 doctorate and masters graduates.
12:00	Lunch
13:30-17:30	Aerial seeding at Bairin Right Banner- created since the emergency implementation of a desertification source-control project began in 2000, RMB 18,547 has been invested. The project covers 2,010,000 mu (approx. 1,340 km <sup>2</sup> ), out of which 793,500 mu of artificial plantations, 86,000 mu aerial seeding plantations and 1,136,200 mu closed reforestation area.
18:00	Dinner
<b>8th day: 28th September</b>	
07:30	Breakfast
08:30-11:30	Visit to Asihatu National Geopark in Hexigten Banner . It is a UNESCO Global Geopark in Heigten Banner since 2005. Its

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	1,750 km <sup>2</sup> area is contained in eight separate areas of scenic beauty and geologic significance, including volcanic, glacial, and desert features. It lies at the convergence of several geographic regions: the Greater Khingan Mountains to the east, the Yan Mountains to the south, and the Hunshandake Sandland to the southwest.
12:00	Lunch
13:30-17:30	Visit to Picea mongolica Nature Reserve. It became a national nature reserve in April, 2000 for its Picea mongolica forests ecosystem, covering an area of 13,862 hectares. It is the only Picea mongolica forests ecosystem in the world therefore also known as a 'living fossil'.. The Picea mongolica forest is a unique ecosystem formed through long periods of natural succession under very specific conditions in the nature.
18:00	Dinner
<b>9th day: 29th September</b>	
07:30	Breakfast/Check out
08:30	Participants from Chifeng return to Beijing
<b>10th day: 30th September</b>	
06:30	Participants start to airports(OM224 09:30)