

CHINA'S IMPLEMENTATION OF THE CONVENTION TO COMBAT DESERTIFICATION

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Summary

Desertification is one of the most serious global environmental problems. According to the definition of the UNCCD, desertification refers to the land degradation in arid, semi-arid and dry sub-humid areas resulting from various factors including climatic variation and human activities.

After UNCED in 1992 in Rio, the United Nations General Assembly adopted Resolution 47/188, by which an international negotiating committee was established for the elaboration of an international convention to combat desertification (INCD) in those countries experiencing serious drought and/or desertification, particularly in Africa. The INCD set up an expert group for developing the draft UN Convention to Combat Desertification in May 1993 and was completed, after five sessions, and adopted by the INCD in June 1994. The Convention was opened for signature in October 1994, in Paris.

The Chinese government attaches great importance to combating desertification, and has established the China Committee for the Implementation of the Convention to Combat Desertification, with its secretariat housed in the National Greening Committee (State Forestry Administration). The government has also created the Desertification Monitoring Center in order to collect macro-dynamic information and data in a timely manner.

1. National Strategic Objectives to Combat Desertification

The strategic objectives to combat desertification in China are divided into three phases, the first one from 1996 to 2000, the second from 2001 to 2010 and the third from 2011 to 2050. These periods coincide with the time schedule for the China National Economic and Social Developmental Plan.

Short-term objectives (1996-2000)

To slow down the spread of desertification and improve the ecosystem in the affected regions, and help rural population to alleviate suffering the disasters of desertification through continuous efforts in the field. The targets are:

- 3.177 million ha. of lands affected by wind erosion will be rehabilitated;
- 4.3 million ha. of lands affected by water erosion will be controlled;
- 12.15 million ha. of degraded steppe, desert steppe and rangelands will be revegetated;
- 2 million ha. of salinized land will be treated appropriately;
- 6905 million ha. of artificial plantation will be established, and
- 165 natural reserves and the preservations in arid, semi-arid and dry sub-humid areas will be established, covering a total area of 59.5 million ha.

Mid-term objectives (2001-2010)

To improve ecological conditions in the affected regions and improve people's life in the affected regions. The targets are:

- 7.45 million ha. of lands affected by wind erosion will be rehabilitated;
- 5.7 million ha. of lands affected by water erosion will be controlled;
- 34 million ha. of degraded rangelands will be revegetated;
- 6.69 million ha. of forest plantation will be created;
- 4 million ha. of salinized lands will be treated properly, and
- the total area of natural reserves will be increased by 68.68 million ha.

Long-term objectives (2011-2050)

It is estimated that nearly all desertification affected land will be brought under control with implementation of the National Action Plan (NAP) to Combat Desertification.

The total area of Natural Reserves will be 91.35 million ha, and the ecosystem and economic development in the affected areas will be fully rehabilitated and promoted.

2. Main Projects in the NAP to Combat desertification

According to the ecological requirements of the sustainable development strategy, China has emphasized her efforts on a significant number of projects to combat desertification.

The following principles will be applied to these projects:

- Priority is given to protective measures;
- Techniques adopted be suitable to local conditions;
- Management of key projects is rationalized;
- Implementation of projects is divided into phases with an appropriate time frame;
- Supervising and monitoring to be strengthened;
- Financial mechanism be set up and cost/benefit have to be stressed, and
- Immediate objectives are combined with long-term objectives.

2.1. Projects to Combat Desertification Caused by Wind Erosion

From 1996 to 2000, some 3.177 million ha. of affected areas will be rehabilitated and 3.25 million ha. of forest plantation will be established; from 2001 to 2010, about 7.45 million ha. of the affected areas will be rehabilitated and 2.24 million ha. of forest plantation will be established; from 2011 to 2050, nearly 30 million ha. of the affected areas will be rehabilitated. In addition to the main projects specified in the programs, emphasis will be on the establishment of ecological and economic forests on the Loess Plateau, sandy lands, steppe and desert steppe, and revegetation on desert and Gobi areas where natural condition is better.

According to the existing facts of desertification in the affected areas caused by wind erosion, 18 key projects and 18 pilot experiments have been facilitated in arid, semi-arid and dry sub-humid areas from the northwest China to the Northeast China listed as follows:

- Reforestation and rational utilization of resources in the Inner Mongolia Plateau and the deserts in Xinjiang Uygur Autonomous Region;
- Overall rehabilitation and development of sandy lands in the north Part of the Ulan Uh Sandy Land;
- Reclamation of desert and development of sandy land along the east part of Ningxia Hui Autonomous Region and in the southeast part of the Tengger Sand Desert;
- Desert reclamation and forest plantation along the Hexi Corridor in Gansu Province;
- Revegetation and development of sand land at the southern part of the Jungar Basin in Xinjiang Uygur Autonomous Region;
- Protection of the green corridor in the Tarim Basin in Xinjiang Uygur Autonomous Region;
- Reclamation and development of sand land at the southern part of the Tarim Basin in Xinjiang Uygur Autonomous Region;
- Control of sand drifts around oil fields in the Central Taklimakan Sand Desert;
- Overall planning and integrated development of sandy lands in the Hulun Bir Sandy Land in the Eastern Inner Mongolia Autonomous Region;
- Sandy land reclamation and protection along the banks of Songhuajiang River and Nenjiang River in the Heilongjiang and Jilin Provinces;
- Integrated development of waste sand lands along the Xiliao River in the Inner Mongolia Autonomous Region and Jilin Province;
- Integrated development and rational management of sandy lands in the north part of the Horqin Sandy Land in Jilin Province and the Inner Mongolia Autonomous Region;
- Rehabilitation of degraded steppe and rangelands in the Otindag Sandy Land, Inner Mongolia Autonomous Region;
- Revegetation of sand sheets around the Shengfu-Junggar Coal Mines, Shanxi Province and Inner Mongolia Autonomous Region;
- Rehabilitation of degraded rangelands in the central Mu Us Sandy Land, Inner Mongolia;
- Control of sand encroachments and dune fixation along the Ancient Great Wall ruins in the southern Part of Mu Us Sandy Land, Shanxi;
- Rehabilitation of desertified land at the north margin of the Daqing Mountains;
- Integrated utilization and development of waste sand land in northern Shanxi

Province;

2.2. The 18 national experimental and pilot projects are as follows

- Pilot experiment on the reclamation of salinized soil and sand control in Jinhe County, Xinjiang;
- Pilot experiment on integrated development and utilization of the affected areas of Wuwei County, Gansu;
- Pilot experiment on reclamation of sandy land and establishment of new oases in Linze County, Gansu;
- Pilot experiment on sandy land reclamation in Ulan Buh Sand Land in Dengkou County, Inner Mongolia;
- Pilot project on desert vegetation protection of Alxa Desert and rational management of natural resources in Ejina Banner, Inner Mongolia;
- Pilot experiment on sandy land reclamation at high elevation in Xiang Rige, Qaidam Basin, Qinghai Province;
- Pilot experiment on rehabilitation of degraded rangelands in Horqin Sandy Land in Oniute Banner, Inner Mongolia;
- Zhanggutai pilot experiment of rehabilitation of desertified lands of Horqin Sandy Land, Inner Mongolia;
- Naiman pilot experiment of rehabilitation of desertified lands of Horqin Sandy Land, Inner Mongolia;
- Taonan pilot experiment on integrated economic development of waste land of Nengjiang Sandy Land, Jilin Province;
- Pilot experiment on preservation of desertified rangeland in Duerbert Mongolian Autonomous County, Heilongjiang Province;
- Qiqihar pilot experiment on integrated economic development of waste sandy land, Heilongjiang Province;
- Pilot experiment on rehabilitation of desertified lands of Mu Us Sandy Land in Shengmu County, Shaanxi Province;
- Uxinju pilot experiment on the reclamation of sandy lands of Mu Us Sandy Land in Uxin Banner, Inner Mongolia;
- Ordos pilot experiment on ecological rehabilitation of desertified lands in Ejenhoro Banner, Inner Mongolia;
- Huanglongchi pilot experiment on the rehabilitation of the affected areas in Pianguan County, Shanxi Province;
- Yanchi pilot experiment on the rehabilitation of desertified lands at the periphery of Mu Us Sandy Land, Ningxia Hui Autonomous Region;
- Daxing and Fangshan demonstration project on high efficiency utilization and economic development of waste sand lands at the lower reaches of the Yongding River, Beijing.

2.3. Projects to Combat Desertification Caused by Water Erosion

2.3.1. Soil and water conservation at the middle reaches of the Yellow River

The following projects are aimed at integrated watershed management.

- Soil and water conservation project along the Wuding River Valley;
- Soil and water conservation project along the Sanchuan River Valley;
- Soil and water conservation project along the Huangpuchuan River valley;
- Soil and water conservation project in Dinxi County, Gansu Province;
- Soil and water conservation project along the Kuyie River and its Branches;
- Soil and water conservation project along the Yanhe River and its Branches;
- Soil and water conservation project along the Xianchuan River and its Branches;
- Soil and water conservation project along the Qiushui River and its Branches;
- Soil and water conservation project along the Xishui River and its Branches;

Up to 2000, about 3.5 million ha. of land affected by water erosion will be revegetated; from 2001 to 2010; around 5.7 million ha. will be reforested, and from 2011 to 2050, some 14 million ha. will be rehabilitated.

2.3.2. Integrated watershed management of the upper reaches of Guanting, Miyun and Panjiakou Water Reservoirs

The purpose of this project is to control the flood hazards and sand encroachment and to provide drinking water supplies to Beijing, Tianjing and Tangshan. It is designed that 80 000 ha. of the desertification affected land be included for controlling.

2.3.3. Protective forest systems along the middle reaches of the Yellow River

This project is aimed at rehabilitation of the affected areas caused by water erosion by appreciating biological measures.

From 1996 to 2000, about 3.655 million ha. of forest plantation will be set up; and from 2001 to 2010, near 4.45 million ha. of reforestation will be made; from 2011 to 2050, roughly 9.27 million ha. of forest plantation will be established.

From 1996 to 2000, the following five key projects are planned:

- Protection forests along the Yellow River and its Branches;
- Soil and water conservation forests along the gorge of the Yellow River in Shaanxi and Shaanxi Provinces;
- Sandbreaks and windbreaks shelterbelts along the Baotou-Lanzhou Railway Line;
- Soil and water conservation forests on the Loess Plateau in northern part of Weinan, Shaanxi Province and in the southern part of Luliang Mountains in Shanxi Province;
- Soil and water conservation forests and farmland protective networks on the Loess Plateau in the eastern Gansu Province.

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Biographical Sketches

Longjun Ci, a professor, is an expert in Landscape Ecology and Combating Desertification. She graduated from postgraduate class in Beijing Forestry University in 1958 and got her Ph.D. from Cornell University, USA in 1991. At present she works in the State Forestry Administration as Director-General of the National Bureau to Combat Desertification and Vice-President of Chinese Academy of Forestry. She also holds many concurrent posts, such as professor and supervisor of Ph. D students of Beijing Forestry University, Vice-President of Chinese Landscape Ecology Society, etc. Ms. Ci has been engaged in combating desertification for over 40 years and has taken part in many important scientific surveys, researches and establishment of experimental stations, and has led and completed ten major research projects. Three books and more than 40 papers were published abroad and at home.

Y. L. Yang, graduated from Lanzhou University in 1977 and has served in the Institute of Desert Research, Academia Sinica for 18 years. As a Senior Engineer and Division Director, he serves in the Secretariat of CCICCD and the National Bureau to Combat Desertification, SFA for implementing the NAP and UNCCD at national level. He has published over 15 papers and books as co-author and author.