

1 July 1995

ORIGINAL: ENGLISH

INTERGOVERNMENTAL NEGOTIATING COMMITTEE FOR
THE ELABORATION OF AN INTERNATIONAL CONVENTION
TO COMBAT DESERTIFICATION IN THOSE COUNTRIES
EXPERIENCING SERIOUS DROUGHT AND/OR
DESERTIFICATION, PARTICULARLY IN AFRICA
Seventh session
Nairobi, 7-18 August 1995
Agenda item 2

IMPLEMENTATION OF URGENT ACTION FOR AFRICA
AND ACTION IN OTHER REGIONS:
COMPILATION OF INFORMATION

Contribution from the Government of the People's Republic of China
(received on 1 June 1995)

Land Desertification and Combatting Activities in China

by

The Secretariat of CCICCD

As one of the countries threatened by vast deserts and desertification-prone lands in the world, China is a developing country with a large population and scarce arable land. China feeds 22% of the world's population with 7% of the world's tillage land. Therefore, sustainable development of natural resources is a top priority in China. As preliminary statistics shows that the total acreage of desertification affected area is around 3,327,000 sq.km. in China, occupying 34% of her total land territory. Approximately 400 million people are suffering from land desertification.

1. Land Desertification in China.

Land desertification occurs mainly in arid, semi-arid and dry sub-humid areas in the Northern China from east to west. Land desertification caused by wind erosion totals about 1,533,000 sq.km. and is mainly distributed in barren lands and dry grasslands to the east of the Helan Mountains and the Wushaoling Ridges. Land desertification in the transitional and marginal zones of farming and grazing is most serious, which includes Xinjiang, Inner Mongolia, Gansu, Qinghai, Ningxia, Shanxi, Shaanxi, Liaoning, Jilin, Heilongjiang, Hebei and so totalling 13 provinces and autonomous regions. Land desertification caused by water erosion is around 1.794 million sq. km. and is mainly distributed on the Loess Plateau, and the middle and the lower reaches of the Yangtze River and other hilly and mountainous regions. Land desertification caused by the physical, chemical and biological processes of the soil and development activities occurs mainly in the oasis of the arid areas in the Northwest and other sandy areas with poor drainage, especially in the irrigated oasis and the surrounding areas in Xinjiang and Inner Mongolia.

1.1 Major Consequences of Land Desertification.

- 1.1.1. Degradation of Ecosystem;
- 1.1.2. Restriction of Development of Local Economy;
- 1.1.3. Poverty of the Local People in the Affected Areas;

1.2 Major Causes of Land Desertification in China.

- 1.2.1. Climate Change;
- 1.2.2. Human Factors;

2. China's Initial Achievements in Desertification Combatting.

In the past decades, under the leadership of the Chinese Government, the people in the desertification affected areas devoted enormous amount of efforts to the combatting of desertification, and the initial achievements have become visible. By the time of 1988, plantations established mainly for desertification control had already covered 10 million ha. of land. Thus, the forest coverage in the Northeast, the Northwest and the North of China rose from 4% in the 1970's to approximately 12% in 1980's, and put 10% of desertification affected areas under control. Thanks to the sheltering of these plantations, people were able to open up 1,300,000 ha. of new farmland in those regions; 11,000,000 ha. of desert affected farmland was protected, within which grain production output increased by 10-20%; 9,000,000 ha. of desertified and degraded grazing land was protected, some locations were rehabilitated, grass fodder increased by 20%. While the deforested and degraded grazing lands were closed from forage harvesting and animal grazing for natural rehabilitation; 8,330,000 ha. of fuelwood plantations were established to meet the daily needs of 5,000,000 local households. Wind and solar energy were also applicated as supplements of the shortage of energy. All these contributed to the rapid development of economy and the improvement of eco- environment of those regions, effectively reduced erosion over an area of 570,000 sq.km.. In less than 4 years since the start of the National Action Programmes to Combat Desertification, 2,445,000 ha. have been put under control, among which 401,000 ha. were covered with man-made plantations, 271,000 ha. were reafforested by arial-seeding of different species; 1,470,000 ha. were closed up for natual rehabilitation; and 104, 000 ha. of seriously desertified land areas were converted into farmlands. In a word, the National Action Programmes to Combat Desertification accelerate greatly the national efforts to combat desertification.

3. Mechanism for China's Desertification Combatting.

3.1. Institutions.

The Chinese Government gives a lot of attentions to the work of desertification combatting, and has taken it as a part of the national economic and social development master plan. The China National Committee for the Implementation of the International Convention to Combat Desertification is consists of the following ministries and state commissions:

- Ministry of forestry;
- Ministry of Foreign Affairs;
- State Planning Commission;
- State Science and Technology Commission;
- Ministry of Finance;
- Ministry of Agriculture;
- Ministry of Water Resources;
- Ministry of Railway;
- Ministry of Communication;
- Chinese Academy of Sciences;
- People's Bank of China;
- State Tax Supervision Agency;
- China National Environment Protection Agency;
- China Land Administrative Agency;
- Poverty Alleviation Bureau of State Council;

China National Bureau to Combat Desertification is located in the Ministry of Forestry, to consult and coordinate the routine programmes and activities. Relevant set-ups were also created at different levels of local governments. These organizations play a positive role in the coordination and implementation of the National Action Programmes to Combat Desertification.

3.2. Related Policies and Legislations.

In order to put effectively desertification under control and conserve natural resources, the central government promulgated successively Forest Law, Water Law, Grassland Law, Land Law, Environment Protection Law, Family Planning Decree etc. . In 1991, the central government formulated policies related to desertification combatting and rational use of sand deserts, paving the way for the smooth

reinforcement of the above-mentioned laws> Not long ago, the Ministry of Forestry auctioned the using rights of some barren hills and waste lands, thus further brought up the initiatives of the broad masses of farmers in combatting desertification.

3.3. Integrated Planning, Management and Exploitation.

China's deserts and desertified lands are characterized by their large sizes, scatteredness and diversified forms. Therefore, the work involves people in many sectors. In order to make the work more efficient on a sound scientific basis, the government has to centralize the planning, but give specified technical instructions, according to the local conditions, integrated management over sands, water, farmlands, forests and roads, so as to promote a balanced development of agriculture, forestry, animal husbandry and water resources. To prevent the achievements and practices from being pulling backward, the following measures are adopted:

3.3.1. In arid areas, where wind erosion is the major problem, green shelterbelts should be established or perfected; enhance watershed or water resources management, rationally utilize and distribute water resources, and popularize water saving technology; actively protect vegetative coverage, improve eco-environment, protect and enlarge the existing oasis, and try to further improve the ecological and economic functions of the oasis according to the local conditions.

3.3.2. In semi-arid transitional and marginal zones of farming and grazing, where wind erosion is one of the major factor to cause desertification, agriculture, forestry and animal husbandry should be re-arranged into an applicable proportion; improve irrigation facilities, adopt water saving measures, carry out intensive farming and tillage system during dry season; and develop fuelwood and fodder plantations; establish planted grazing lands and fodder basis, control the animal population according to the rangeland carrying capacity, so as to prevent rangeland from degradation.

3.3.3. In dry sub-humid area with wind erosion as the main erosion pattern, shelter forests should be improved, farmland, forest and road should be integrally managed and comprehensively developed, so agriculture, forest, animal husbandry, water and industry can enjoy an

integrated development. Based on initial management, farmland, forest farm, rangeland, orchard and fish pond can be developed according to the local conditions, establishing production basis for meat, eggs, cereals, milk, cotton and oil.

3.4. In semi-arid and dry sub-humid areas with water erosion as the major erosion pattern, a small scale watershed management will be taken as a unit, making a master plan and comprehensive management, developing runoff woods, improving the forest-grass land, building terrace cultivation, combining environmental protection with economic development.

3.5. In desert area with the problem of secondary salinization, irrigation system should be improved, salt-resistant species be selected and shelter forest be established, so saline-alkali soils can be reasonably utilized.

3.6. To strengthen the development and management of the resources in desert areas, taking careful utilization of the resources of soil, water, biology and climate to establish a bio-economy and regional protective forest system.

4. Combining the biological and engineering approaches with emphasis on biological one.

In order to combat desertification, to regulate micro-climate and improve environment, Chinese Government has been establishing some large-scale regional protective forest systems and put them as key national forestry programmes. These systems include the Northern Shelter-belt Networks Project, the Watershed Forest along the Middle and Upper reaches of the Yangtze River, the Coastal Wind-break Forest System, the Farmland Shelter-belt Networks System in the Plain Area for Combatting Desertification, etc.. The Northern Regions Shelter-belt Networks Programme crosses 551 counties of 13 provinces and autonomous regions in the Northwest, the North and the Northeast China, with a total area of 4,069,000 sq.km. accounting for 42.4% of China's total land mass, planning to reafforest 35,000,000 ha.. With the completion of these programmes, China's environment will be greatly improved and desertification will be effectively controlled.

5. Rely on Science and Technology and strengthen the training of staff.

Combating desertification is a long and hard course which needs several generations' efforts, including scientific and technological aspects. For this purpose, China has set up institutions, colleges and departments of soil and water conservation and desert control in universities and other national academies, held various training courses and seminars. At the same time, professional technical schools have been established and education network have been improved, research institutions and water conservation/desert experiment station have been set up, and technical extension stations and pilot projects have been carried out, rich results have been achieved.

6. International Exchange.

China attaches interests to the international exchange and cooperation, keep close contacts with more than 70 countries and 10 UN organizations. In 1992, Prime Minister Li Peng of China attended UNCED in Rio and signed the Rio Declaration and documents in this regard. China has held international workshops on desertification combating for UNEP, ESCAP, UNDP, WFP, FAO, hold more than 10 international symposium on desertification for UNESCO, sponsored the Third Conference on Desert Development for IDDC and the Third World Academy as well as the Fourth International Conference on River Silting. In the past decade, China has sent expert missions to Sudan, Algeria, Tanzania, Ethiopia and Mali for lecturing and cooperation.

7. Programmes to Combat Desertification.

7.1. Concrete activities for implementing the International Convention to Combat Desertification in China.

In order to implement effectively the Convention to Combat Desertification, the following organizations have been instituted:

- China National Committee for the Implementation of the International Convention to Combat Desertification (CCICCD) and its Secretariat;
- Senior Expert Consultant Group, consisted of 16 academicians and expert from different ministries and state commissions;

7.2. Master Plans to Combat Desertification.

A Five-year National Action Programmes to Combat Desertification

(1996-2000) and a Five-year National Action Programmes for Soil and Water Conservation (1996-2000) have been prepared, based on the Ten-year China National Plan of Economic and Social Development and the real status of desertification in China.

The Five-year National Action Programmes to Combat Desertification stressed the following targets:

—To revegetate 6,860, 000 ha. of desertification affected areas through:

- (a).trees (shrubs) planting and grass sowing;
- (b).natural revegetation of the affected area by reserves and reverses;
- (c).arial seeding of tree and grass species;
- (d).improvements of lower yield farmland and rangeland;
- (e).cultivation of cash crops; and
- (f).increase of the productivity of waters.

—To implement 20 greening projects in 20 key counties which contains 9 different categories of the affected lands. Each of the 20 projects is a development complex for combatting desertification in combination of agriculture, forestry, animal husbandry and industry;

—To increase the percentage of successful conversion of the affected land from 10% to 31.31% by 2000;

—To bring under control of some 40,000 sq.km. of water eroded land each year; and

—To decrease area of farmland suffered from shifting sand dunes by 25% by 2000;

7.3. China National Desertification Monitoring Centre;

7.4. China National Desertification Research and Development Centre, and China National Training Centre for Combatting Desertification are being established.

**For an Effective Implementation of the
International Convention to Combat Desertification
CCICCD Could Make Her Contribution to Africa and the
Countries of Asia-Pacific Region in the Following Fields**

Since 1950's, Chinese Government has dedicated enormous amount of efforts, accumulated rich experiences and obtained successful achievements in the field of combatting desertification. These efforts and achievements has brought people in desertification affected areas substantial economic benefits and sound improvement of eco-environment. Desertification has been controlled on a certain scale. These successes are greatly admired among international organizations and relevant countries. Since the UN Conference on Desertification in 1977, in collaboration with UNDP, UNEP UNESCO, and others, has organized and sponsored international training courses, workshops, study tours and symposium, and more than 100 decision-makers, administrators, scientists and technicians from many countries attended the training programmes. By UN Organizations' invitations, Chinese Expert Missions have been sent to some countries, such as Tanzania, Ethiopia, Mali to observe and work in these countries for preparing national master plan and/or national action plans to combat desertification. At the same time, China cooperated closely with some developed countries and their authorities, such as the SAREC of Sweden, and formed sound basis for exchange and cooperation on desertification combatting.

For an effective implementation of the International Convention to Combat Desertification, CCICCD is ready to cooperate with UN System and relevant governments to work together, and to contribute Chinese achievements to the global desertification disasters. However, it must be mentioned particularly that China is a country with serious problem of desertification herself and faces a lot of challenges in the aspects of shortage of funds and poverty of rural people. China could providend technical assistances to other desertification affected developing countries, in the aspects of research, technology, staff training, capacity building and information service provided that international financial resource is available.

Possible technical services China can provide:

**1. Multilateral cooperation in research
and combatting of desertification:**

- (1). With UN financial support, CCICCD could provide scientific and

technological assistance to the affected developing countries in case studies, pilot experiments;

(2). With financial assistances from the developed countries, CCICCD could organize Chinese experts missions to the desertification affected developing countries to introduce useful experiences and know-how for combatting desertification;

(3). With international community's financial support, CCICCD will be responsible to edit, translate and publish Chinese literatures, research results and informations, and provide consulting services to scientific, technical and extension institutions in the affected developing countries.

2. To establish multi-lateral or bilateral cooperation for supporting the affected developing countries in the field of capacity building.

(1). In collaboration with UN Organizations, CCICCD could sponsors and organize continuously international courses, study tours, workshops and symposium on combatting desertification for decision-makers, officials, administrators, scientists and technicians from the affected developing countries;

(2). CCICCD could organize Chinese expert missions to the affected countries to popularize successful technology and know-how on desertification combatting;

(3). Suitable experiences, pilot projects in China will be selected as the models for capacity building to educate and/or re-educate people, particularly women and children, in regard of the service of public awareness;

(4). To make full application of the advantage of senior education in China, younger scientists and technicians are welcome to Chinese universities, colleges and institutes to enhance their knowledge in the field of desertification combatting; and Chinese younger staff will be sent to some advanced countries in combatting desertification to extend their working capacity for combatting desertification;

3. Exchange of experts and Chinese assistances to the affected developing countries:

(1). To prepare master plans, national action programmes to combat desertification;

(2). To set up case study, pilot experiment and training basis;

(3). To provide strategical consultants for combatting desertification;

(4). To edit and publish educational materials for public education;

4. Undertaking different engineering projects

to combat desertification:

- (1). Dune fixation with biological and engineering technologies;
- (2). Irrigation technology in arid and semi-arid zones;
- (3). Establishment of artificial oasis and maintain in arid zone;
- (4). Air-seeding and artificial revegetation in shifting sand areas;
- (5). Advanced technology for rainfed farming in the affected areas;
- (6). Undertaking regional and sub-regional projects for combatting desertification;

5. In collaboration with the Secretariat of INCD, hold actively international and regional symposium on desertification combatting; support the Secretariat of INCD with technological and information services; contribute both Chinese and INCD's efforts to global desertification.