

FOREST PRINCIPLES IN ACTION

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Summary

Since UNCED in 1992 the Chinese government has taken a series of strong political and economic measures to implement the obligations specified in the international instruments, including the Forestry Principles. In 1994 "China's Agenda 21" was published. In 1995 the Forestry Action Plan for China's Agenda 21 was promulgated. In addition to the above important policy papers, the former Ministry of Forestry of China (now State Forestry Administration) launched some ten forest-based and ecology-oriented programs, including the famous Three North Protection Forest

Program. In 2001 the State Council (Central Government) launched six programs by integration of an existing 10 programs. The total investment of these programs is 300 billion RMB Yuan over ten years. In order to speed up the improvement of ecological environment, the State Council promulgated, in January 1999, the National Development Planning Guideline for Ecological Environment for China. All these facts show that the Chinese government, being fully aware of the importance of environment, has made great efforts to implement the Forest Principles and IPF/IFF proposals for action. However, it is necessary to indicate, that there are many difficulties and constraints in realization of the plans and commitments written on paper.

1. Introduction

UNCED, in Rio de Janeiro, 1992, was a turning point for global environmental protection, where the Non-legally Binding Authoritative Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable Development of All Types of Forests (Forest Principles) was adopted. Although the Forest Principles are not legally binding, many countries have considered the principles as a guideline for forest management. At its substantive session of 1995, the Economic and Social Council (ECOSOC), upon the recommendation of the Commission on Sustainable Development (CSD) formally established the *Ad Hoc* Open-ended Intergovernmental Panel on Forests (IPF). At its fourth session in February 1997 the final report, containing 135 Proposals for Action under its 12 Program elements, was adopted. The United Nations General Assembly, at its nineteenth special session in June 1997, decided to continue the intergovernmental policy dialogue on forests through the establishment of an *Ad Hoc* Open-ended Intergovernmental Forum on Forests (IFF). The IFF terminated its mandate in 2000. Now the United Nations Forum on Forest (UNFF), a new intergovernmental body, is established as a permanent body under ECOSOC.

China, since her attendance at UNCED, has paid great attention to environmental protection, both in China and abroad. In 1994 the Chinese government published a White Paper entitled “China’s Agenda 21”. Several sectors, including forestry, subsequently started to work out Action Plans to implement China’s Agenda 21, and in 1995 the ‘Forestry Action Plan for China’s Agenda 21’ was published. In January 1999 the State Council promulgated the National Development Planning Guideline for the Ecological Environment of China (1999 to 2050). In early 2001 the State Council approved six forestry integration programs with an emphasis on ecological improvement and a huge amount of investment (300 billion RMB Yuan over ten years). All these facts show that the Forest Principles adopted in 1992 and the Proposals for Action adopted at IPF and IFF in 1997 and 2000 respectively, are now operational in the People’s Republic of China.

2. Brief Account on Forestry in China

2.1. Basic Facts

The bare statistics are shown in Table 1.

Land area of China:	9.6 million km ²
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Forest area (including forest plantation):	158,940,000 ha (16.55% of land area)
Forest plantation:	46,670,000 ha
Natural reserves:	100 million ha (10.4% of total land area)
Growing stock:	12,488 million m ³
Annual Allowable Cut (AAC):	c. 60 million m ³
Average forest drain:	c. 320 million m ³
Annual increment:	c. 420 million m ³
Annual production of wood-based panel:	c. 20 million m ³
Average annual afforestation or reforestation	c. 5 million ha
Gross output of forest products	34 billion Yuan (2000)

1 USD = 8.2 RMB Yuan

Table 1. Forestry facts for China

2.2. Historical Evolution of Forest

In ancient times China was covered by abundant virgin forest. The forest cover was c.60%. The western part of China, where desert is prevailing at present, used to be richly forested. Although some forests were gradually damaged as a result of the increasing pressure of human interference, forest degradation was generally insignificant thanks to the scarcity of population in ancient China. The catchment of the Yellow River, one of the cradles of Chinese civilization, was abundant with forests in ancient times. According to the historical records, the forest cover in the middle reaches of the Yellow River was about 50% in 2000 BC.

Deforestation gradually became dramatic during the ‘Spring and Autumn Period’ and the ‘Warring States’ (800 BC.). After the unification of China in 221 BC, the first emperor of the Qin Dynasty went in for large-scale construction of royal palaces and tombs. The forest, located near the capital city Chang’an (now Xi’an), was used up. People were ordered to cut trees in remote areas (the present Sichuan province). The serious destruction of forests was vividly described in an ancient poem: “As Shushan Mountain is getting bare, the Efang Palace has emerged”.

The decrease of forests became even more serious in the Tang Dynasty (618- 896 AD). This was not only due to the increase of population and the subsequent huge consumption of timber for housing, heating and cooking, but also largely due to the construction of royal palaces and tombs for each new emperor. Besides, frequent wars as well as the development of agriculture and animal husbandry, which resulted in the transformation of vast forested lands into farmland and pastureland, also accounted for the dwindling of forests.

As a result of the deforestation, the people living in the Yellow River Basin suffered from floods. The floods had occurred once every 500 years during the period from the twenty-first to the sixteenth century BC. After this, however, the interval between floods became shorter. Floods occurred twelve times in the period from 206 BC to 25 AD (West Han Dynasty), with an interval of 20 years. During the period from 618 to 907

AD (Tan Dynasty) floods happened 31 times, with an interval of 9 years. During the period from 1368 to 1644 (Ming Dynasty) floods happened 454 times with an interval of 0.6 year. During the period from 1644 to 1911 (Qing Dynasty) there were 480 floods—an interval of 0.55 year.

It should be pointed out, that planting in China has also been long standing. Monographs on silviculture were compiled as early as in the Western Han Dynasty (from 206 BC to 24 AD), which elaborated on issues such as planting seasons, planting methods, pruning and tending. Special civil services were created to facilitate forestry administration, while regulations concerning forestry often appeared in imperial edicts.

The Qing Dynasty, the last feudal dynasty in China, was overthrown by the Revolution, headed by Dr. Sun Yatsen, in 1911 and replaced by the Republic of China (ROC). During the period of ROC from 1911 to 1949, despite the fact that the government had issued laws and decrees concerning forestry, the unstable political situation and frequent wars made these ineffective.

Since the founding of People's Republic of China (PRC) in 1949 forest cover has increased from 8.6% in 1948 to 13.92% in 1993 and further to 16.55% in 1998. Since the early 1980s the forest cover has increased by approximately 0.1% per annum. With the development of environmental protection all over the world, especially after UNCED in 1992, the Chinese government has paid increased attention to environmental protection, including the environmental function of forests. The government decided in the summer of 1998, after disastrous floods in the basins of the Yangtze River, Songhua River and Nenjiang River, that logging of natural forest had to be stopped immediately. After the floods the Chinese government adopted an important decision to implement the Natural Forest Protection Program. This was a turning point for China's forestry, because logging natural forest came to be considered an illegal activity. Sustainable forest management (SFM) became a real need. In January 1999 the State Council promulgated a program: National Development Planning Guidelines for the Ecological Environment of China. This opened a new era of forest-based environmental development in China. In early 2001 the State Council approved six national forest-related Programs bringing forestry in China into its new stage—the stage of ecological forestry.

3. Specialties of China's Forestry

3.1 Richness of Biodiversity

China is a rich country in terms of natural resources, particularly in fauna and flora. Due to the favorable geographical conditions of a wide range of different climate zones, China has become one of the countries of the world with the most diverse variety of fauna and flora. There are in China 4400 species of vertebrates alone, accounting for over 10% of the total species in the world. Of these 210 species are amphibians, 320 are reptiles, 1186 are birds, over 500 are mammals, and over 2200 are fish. Taking some bird and mammal taxa as examples, China has 60% of the world's Gruidae, 31% of the world's *Anserinae-Anatidae*, 20% of the world's Phasianidae, 21% of the world's carnivores and 8% of the world's primates.

Over 100 species of rare animals are found in China, such as Giant Panda (*Ailuropoda melanoleuca*), Golden Monkey (*Rhinopithecus roxellanae*), Taiwan macaque (*Macaca cyclopis*), Takin (*Budorcas taxicolor*), White-lipped deer *Cervus albirostris*, South China tiger (*Panthera tigris amoyensis*), Blue-eared pheasant (*Crossoptilon mantchuricum.*), Black-necked crane (*Grus nigricollus*), Chinese monal pheasant (*Lophophorus thuyssii*), Chinese alligator (*Alligator sinensis*), White flag dolphin (*Lipotes vexillifer*), and Chinese paddlefish (*Acipenser sinensis*), etc. There are no accurate statistics yet as to the species of invertebrate scattered in China, but they are estimated to be no less than one million. There are altogether 32 800 species of higher plants accounting for over 12% of the world total, and ranking third in the world after Malaysia and Brazil. Among them, there are 24 500 species of angiosperm, 236 gymnosperms, 2000 bryophytes and 2600 pteridophytes. Due to the fact that most parts of China were not subject to the influence of Quaternary glaciations, many of ancient and relic species which have become extinct in other regions of the Northern Hemisphere, survive in China. This applies to about 200 genera and over 10 000 species of plants, e.g. *Metasequoia glyptostroboides*, *Glyptostrobus pensilis*, *Pseudolarix amabilis*, *Taiwania cryptomerioides*, *Ginkgo biloba*, *Davidia involucrata*, *Fagus longipetiolata*, *Bretschneidera sinensis*, and *Emmenopterys henryi*. These are all highly valued as rare tree species in China. China is also one of the three major original centers for the domestication of plants, with a large number of surviving related wild relatives of important crops, e.g. wild rice, wild barley, wild soya bean, wild tea, etc. China is therefore making a great contribution to humanity in the field of protection of wild animal and plant resources.

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Biographical Sketch

Mr. L. K. Li was working with the former Ministry of Forestry of the People's Republic of China (now the State Forestry Administration) in the period from August 1959 to February 1998 as ordinary staff, Division Chief of International Programs, Deputy Director-General of Department of International Relations and Chief Adviser for International Cooperation, respectively. Since March 1998 when he retired, Mr. Li has been invited by Chinese Academy of Forestry as an Advisor. He is a senior advisor for Wetlands International, China. Mr. L.K. Li is a Commissioner of the World Commission on Forests and Sustainable Development.