

# IMPLEMENTATION OF CONVENTION ON BIOLOGICAL DIVERSITY IN CHINA

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**Keywords:** Biodiversity, conservation, International Convention on Biological Diversity, plant, animal, micro-organism, ecology, China.

## Contents

1. Introduction
  2. The Establishment of Biodiversity Coordinating Body
    - 2.1. Establishment of State Coordinating Group
    - 2.2. Biodiversity Working Group Under China State Council for International Cooperation on Environment and Development
    - 2.3. Biodiversity Committee Under Chinese Academy of Sciences
    - 2.4 National University Coordinating Committee on Biodiversity
  3. Implementation of Article 6 of Convention on Biological Diversity
    - 3.1 China Biodiversity Conservation Action Plan
    - 3.2. Report on Biodiversity of China: Country Study
  4. Identification and Monitoring of Biodiversity
    - 4.1. Identification
    - 4.2. Monitoring
  5. *In-situ* Conservation
  6. *Ex-situ* Conservation
    - 6.1 Botanical Gardens and Arboretums
    - 6.2. Zoos and Breeding Centers for Endangered Animals
    - 6.3. Preservation of Germplasm Resources *in Vitro*
  7. Research and Training in Biodiversity
    - 7.1 Research
    - 7.2 Training
  8. Public Education and Awareness
  9. Establishment of China Biodiversity Information System
    - 9.1. Establishment of Biodiversity Information System
    - 9.2. Inventory of Biodiversity Information Resources
- Glossary  
Bibliography  
Biographical Sketches

## Summary

Ever since China became one of the Contracting Parties in early 1993, the Chinese

government has been making great efforts to implement the Convention on Biological Diversity. Many measures have been adopted, and great achievements have been made. China was one of the first countries to complete the following two documents: “China Biodiversity Conservation Action Plan” and “Report on Biodiversity of China: Country Study” to fulfil the requirements of United Nations Environment Programme. Another document, “Country Framework for Biosafety in China” was completed in 1999. As required by the Articles of the Convention, many actions have been taken, such as: establishment of many nature reserves and botanical gardens for implementing biodiversity conservation *in-situ* and *ex-situ*; setting up a biodiversity information system; editing various publications on knowledge of biodiversity conservation and sustainable use, and conducting different kinds of training courses and public awareness campaigns, etc.

However, China is a developing country, and the population is so large that awareness of biodiversity and conservation in a large proportion of the public is still at a low level, though genuine efforts have been made. Most areas with abundant biodiversity are distributed in remote border provinces where economic development lags behind, and people are so poor that they depend on local biodiversity for their survival. To solve the contradiction between biodiversity conservation and sustainable use on one hand, and economic development on the other, is one the main tasks facing us. The decision of Chinese government to make every effort to implement the Convention on Biological Diversity is clear enough, but the burden is heavy and the road is long.

## **1. Introduction**

Biodiversity is an important component of the life support system and the basis of economic and social development of human beings. But extinction of biodiversity, especially species extinction caused by human activities, happens continuously at a rapid rate. Conserving biodiversity and using biological resources sustainably have become significant issues. It is clearly important to encourage national and international efforts to learn more about biodiversity management and conservation in an effective manner. China is one of the richest countries of the world as regards biodiversity. The Premier of Chinese Government signed the Convention on Biological Diversity at the United Nation Conference on Environment and Development in Rio de Janeiro on 11 June, 1992 and was the 64th Signatory to the Convention on Biological Diversity. The Seventh China National People's Congress examined and approved the Convention on Biological Diversity at the 28th Meeting of its Standing Committee on 7 November, 1992. China submitted the document of ratification to the Convention on 5 January, 1993, and was actually the first country to ratify the Convention. As one of the Contracting Parties, the Chinese Government has been making tremendous efforts, and has adopted a series of measures and actions for implementing the Convention on Biological Diversity.

## **2. The Establishment of Biodiversity Coordinating Body**

### **2.1. Establishment of State Coordinating Group**

The Committee of Environmental Protection under the China State Council is a high

level leading body to conduct and coordinate environmental protection issues. According to the decision at the 23rd Meeting of the Committee on Environmental Protection, the National Environmental Protection Agency (NEPA) would be the responsible agency for implementation of the Convention on Biological Diversity, and would establish a State Coordinating Group. This Group for implementing the Convention was approved by the State Council in early 1993, and is composed of 13 departments including the Ministry of Foreign Affairs, State Planning Commission, State Science and Technology Commission, Ministry of Finance, Ministry of Construction, Ministry of Agriculture, Ministry of Forestry, Chinese Academy of Sciences, State Oceanic Administration, State Traditional Chinese Medicine Administration, State Patent Administration and General Customs Administration. Seven additional Departments, the State Education Commission, Ministry of Broadcasting and Television, Ministry of Public Security, State Administration of Industry and Commerce, Xinhua News Agency, People's Daily and Guangming Daily, were included in this Group in June 1996. An office under the State Coordinating Group is located in the Department of Nature Conservation, National Environment Protection Agency.

## **2.2. Biodiversity Working Group Under China State Council for International Cooperation on Environment and Development**

There are five working groups, under the China State Council for International Cooperation on Environment and Development. One of these is the Biodiversity Working Group, which was founded in 1992 with one Chinese and one international expert as co-chairmen. In addition to the co-chairmen, there are four Chinese and four international members, representing a wide range of knowledge and experience in the field of biodiversity. A number of other experts were invited to attend the meeting of the Biodiversity Working Group to contribute to special issues. The major terms of reference of the working group are to create a fertile forum for exchange of ideas and approaches between Chinese and international experts, to provide a mechanism where managers of relevant government agencies and scientists try to find approaches for solving existing issues in policies and strategies, and to identify priority issues in the field of biodiversity conservation. The working group has provided an independent view and advice on China's biodiversity for the government. Since the establishment of the Biodiversity Working Group, significant achievements have been made. An annual report of the Biodiversity Working Group is submitted to the China State Council for International Cooperation on Environment and Development, and its suggestions and advice have proved useful to policy-makers.

## **2.3. Biodiversity Committee Under Chinese Academy of Sciences**

The Chinese Academy of Sciences (a national research center for natural sciences) is a member of the State Coordinating Group for implementing the Convention on Biological Diversity. There are about 33 research institutes closely related to biodiversity. The “Chinese Science Committee on Endangered Species” and “Chinese National Committee for Man and Biosphere” are located under the umbrella of the Chinese Academy of Sciences. The Biodiversity Committee under the Chinese Academy of Sciences, founded in March 1993 for implementation of the Convention on

Biological Diversity, is composed of high-level qualified scientists working in the fields of taxonomy, ecology, genetics and biodiversity conservation. The terms of reference of the Biodiversity Committee include: strengthening organization and coordination of biodiversity research, publishing monographs, proceedings and translated books and documents on biodiversity, holding symposia on biodiversity conservation and sustainable use, and conducting training courses.

#### **2.4 National University Coordinating Committee on Biodiversity**

As a member of the State Coordinating Group, the State Education Commission established a National University Coordinating Committee on Biodiversity. The major roles of the Committee are organization of biodiversity research projects, academic exchange, public education and formulation of text books and popular science readings.

### **3. Implementation of Article 6 of Convention on Biological Diversity**

According to Article 6, General Measures for Biodiversity Conservation and Sustainable Use, the Chinese Government adopted a series of actions as follows:

#### **3.1 China Biodiversity Conservation Action Plan**

The formulation of national Biodiversity Action Plan was funded by the Global Environment Facility, through the United Nations Development Program. The Leading Agency was National Environment Protection Agency with participating agencies or leading groups including the Chinese Academy of Sciences, Ministry of Agriculture, Ministry of Construction, Ministry of Finance, Ministry of Forestry, Ministry of Public Security, State Oceanic Administration, State Planning Commission, and the State Science and Technology Commission. The scientists and officers from leading and participating agencies completed the formulation of China Biodiversity Action Plan, that was launched officially on June 13, 1994 by China State Council.

The China Biodiversity Conservation Action Plan described the present status, threats and causes of biodiversity loss, assessment of conservation strategies and measures adopted by the government. China cover a vast territory with various climate zones and a diversity of physio-morphological terrain types. The complicated physical environments provide the diverse habitats for different animals and plants. Most types of ecosystem occurring in the world are also present in China.

China is one of the ‘megadiversity’ countries of the world, but its biodiversity is currently facing extremely severe threats. Inappropriate human activity has caused of the loss of many species, and serious damage to ecosystems and genetic resources. A series of measures has been adopted in the past few years, but these need to be further strengthened. Formulation and implementation of the conservation action plan is an urgent task. The Action Plan proposed seven objectives and twenty six action options for conservation and sustainable use of biodiversity. The objectives are as follows:

- Improvement of basic research on biodiversity in China. Two actions will be adopted: comprehensive review of status and economic value of biodiversity, and

establishment of a biogeographic classification system for the purpose of biodiversity conservation in China.

- Improvement of the national network of nature reserves and protected areas. Three actions will be undertaken: comprehensive review of the distribution and status of protected areas for defining the effectiveness of existing protected areas in the country, enhancement of the conservation function of existing protected areas, and urgent establishment of new protected area in certain regions.
- Conservation of significant wild species of plants and animals. Progress will be made in seven areas: review of the status of species coverage in protected areas, determination of priorities among wild species requiring protection based on the criteria of biodiversity significance and degree of threat, survey of trade in wildlife, review of facilities for *ex-situ* maintenance of wildlife and their effectiveness in protecting priority species, plans for species conservation based on integrated analysis of *in-situ* and *ex-situ* measures, improvement of *ex-situ* management for species conservation.
- Conservation of genetic resources, particularly related to crops and domestic livestock. The three main targets of this objective are: genetic resources of crops, grasses, and vegetables; forest trees, and domestic livestock.
- *In-situ* conservation outside nature reserves. The priority areas are integration of biodiversity conservation into national planning, forest management combined with biodiversity conservation, introduction of agro-ecological practices, protection of major habitats outside protected areas, prohibition or strict control of conversion of grasslands and wetlands, and protection of coastal areas and seas.
- Establishment of a national information and monitoring network for biodiversity conservation. The items of reference of adopted actions are to establish information standards and monitoring methodologies, to establish and improve sectoral networks of information and monitoring, and to establish a national information network to integrate the sectoral networks of information and monitoring concerning biodiversity conservation.
- Coordinating biodiversity and sustainable development. There are three priority areas: establishments of biodiversity/development regions, regional economic demonstration models for coordinating biodiversity conservation and sustainable use, and demonstration sites in protected areas.

China's Biodiversity Action Plan identified the priority ecosystems, species and other biological taxa.

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## Biographical Sketches

**Chen Lingzhi** is a Professor of Plant Ecology in the Center of Plant Ecology and Biodiversity Conservation, Institute of Botany, Chinese Academy of Sciences. He graduated from Department of Biology, Fudan University in 1954. As a visiting scholar, he worked at Merlewood Research Station, Institute of Terrestrial Ecology, U.K. from 1979-1981. He has been working in the following fields: mountainous vegetation types and their distribution rule in Chinese temperate regions; planning the development of agriculture, forestry, animal husbandry sideline production; research on biomass, energy flow, water and nutrient cycling and litter decomposition of forests, and conservation of biodiversity; studies on the effect of contaminated material on plants and soil, and protection of the natural environment in mountainous regions of the temperate zone China. Several monographs have been published, such as *The Ecology of Beijing Tainjin Region* (1990); *Biodiversity in China* (1993); *Study on Regressive Ecosystems in China* (1995); *Nutrient Cycling of Forest Ecosystems in China* (1997); *Forest Diversity and Its Geographical Distribution in China* (1997); *Studies on Structure and Function of Forest Ecosystems in the Warm-temperate Zone* (1997); *The Effect of Human Activity on Ecosystem Diversity* (1999); *Biodiversity Science—Principles and Practice* (2001). More than 100 papers have also been published, e.g. "Studies on Chinese Arborvitae (*Platycladus orientalis*) Forest and Its Biomass in

Beijing" (1986); "Chemical Elements of Planted Forest of *Pinus tabulaeformis*" (1987); "The Ordination and Quantitative Classification of Mountain Coniferous Forest in Warm-temperate Regions," (1992), and "Frontiers in Biodiversity Science" (1997).

**Shidong Zhao** is a Research Professor of Forest Ecology in the Institute of Geographic Science and Natural Resource Research (IGSNRR), Chinese Academy of Sciences and Vice-Chair of the Scientific Committee of Chinese Ecosystem Research Network.(CERN). He graduated from the Department of Forestry of N.W. Agricultural University in 1963 and finished a graduated study in the Institute of Applied Ecology of CAS in 1967. Since then, he has been doing research on taxonomy and distribution of plants, impacts of human activities on ecosystem biodiversity, impacts of climate change on ecosystems, land use change, and structure, function, dynamics and management of ecosystems. So far, about 100 papers and 14 books in these fields have been published. As a visiting Scientist, he did research in the School of Natural Resources, University of Michigan in USA from 1983 to 1985. As a member of the Steering Committees of the Global Observation System (GTOS), International Long-Term Ecological Research (ILTER) and Global System for Analysis, Research and Training (START) and a member of the Assessment Panel of the Millennium Ecosystem Assessment (MA), has been working with several international programs.