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Please provide summary information on the process by which this report has been prepared, including information on the types of stakeholders who have been actively involved in its preparation and on material which was used as a basis for the report

The process by which this report has been prepared is as follows:

1. Entrusted by Office of CBD implementation, China, Nanjing Institute of Environment Sciences, State Environmental Protection Administration of China, is responsible for compilation of the report. Meanwhile, a number of experts appointed by Ministry of Education, Ministry of Science and Technology, Ministry of Construction, Chinese Academy of Sciences, and State Forestry Administration also took part in the compilation of the report.
2. According to the format of the case study report, a preliminary manuscript was compiled by participating institutions. A series of workshops were held to discuss the preliminary manuscript, suggestions and supplementary information were provided, and the suggested report was finished.
3. The suggested report was submitted to Office of CBD implementation, China, revised further and submitted to state Environmental Protection Administration of China.

The following references were used in the report:

1. Ministry of Forestry. 1995. China's Agenda 21—-Forestry Action Plan, China Forestry Press, Beijing.
2. State Development and Planning Commission, and State Science and Technology Commission, etc, 1995. Planning on Priority Projects of China's Agenda 21. Beijing.
3. State Environmental Protection Administration. 1998. China’s Biodiversity: A Country Study. China Environmental Sciences Press. Beijing.
4. State Environmental Protection Administration. 1998. China's National Report on Implementation of the Convention on Biological Diversity. China Environmental Sciences Press, Beijing.
5. State Environmental Protection Administration. 2001. China's Second National Report on Implementation of the Convention on Biological Diversity. China Environmental Sciences Press, Beijing.
6. State Forestry Administration. 1999, 2000. China yearbook of Forestry (1999-2000). China Forestry Press. Beijing.
7. Xue Dayuan and Gao Zhengning. 1995. Technical Commentary and Implementation Strategy for the Convention on Biological Diversity. China Environmental Sciences Press. Beijing.
8. Xue Dayuan and Jian Mingkang. 1994. Construction and Management of Nature Reserves in China. China Environmental Sciences Press. Beijing.

Decision IV/7 on Forest biological Diversity

1. What is the relative priority afforded to implementation of this decision by your country?					
a) High	√	b) Medium		c) Low	

2. To what extent are the resources available adequate for meeting the obligations and recommendations made?							
a) Good		b) Adequate		c) Limiting	√	d) Severely limiting	

3. Has your country assessed the status and trends of its forest biological diversity and identified options for its conservation and sustainable use? (Decision IV/7, paragraph 12)	
a) no	
b) assessment underway (please give details below)	√
c) assessment completed (please give details below)	
d) not relevant	

China pays high attention to the conservation and sustainable use of forest biodiversity, took a lot of measures and has reached significant achievements.

① The current situation and problems of forest biological diversity

a) The current situation of forest biodiversity

China has an area of 158.941 million ha of forests, with forest stock of 11.27 billion m^3 and forest coverage of 16.55%. Forest types are very diverse, including coniferous, mixed coniferous and broad-leafed, deciduous broad-leafed, ever-green broad-leafed, and tropical forests. In addition to the natural forests, there are many other types of man-made forests, including timber, shelter, non-timber forests and agroforests.

China possesses over 30000 species of seed plants, ranked third in the world. China has 250 species of gymnosperms, which are most diverse in the world. There are numerous types of endemic plants in China, including over 17300 endemic species, 247 endemic genera and 5 endemic families. China also possesses a lot of precious and rare plants known as "living fossils", such as *Metasequoia glyptostroboides, Ginkgo biloba*, *Cathaya argyrophylla* and *Cycas panzhihuaensis* and so on.

China possesses 6347 species of vertebrates, including 581 species of mammals, 1244 species of birds, 284 species of amphibians, 376 species of reptiles and so on. Large parts of them live in the inner or marginal forest region. China also possesses numerous types of endemic animals, such as *Ailuropoda melanolauca, Rhinopitheacus roxellanae*, *Cervus albirostris*, *Budorcas taxicolor, Elaphodus cephalophus*,etc.

b) Problems of forest biodiversity

• Low coverage of vegetations and small forest land per capita

The forest area per capita is only 0.12 ha in China, 12% of the world average. Forest stock per capita is less than 13% of the world average. Forest coverage is low and only the half of the world average. The forests are distributed unevenly.

• Low forest production and low forest stock per unit area

The average standing forest stock per hectare is 78.06m^3 in China, the average standing timber forest stock per hectare is 72.5 m^3 and the average man-made standing forest stock per hectare is 34.76 m^3. The standing forests with canopy density between 0.2 and 0.3 make up 20.1% of the whole standing forests. These indicators are much less than that of countries with developed forestry in the world.

• Unreasonable forest age structure and continuous declining logging resources

The young and medium-aged standing forests are up to 71.1% of the whole standing forests in China. The young and medium-aged timber standing forests are up to 74.4% of the whole timber standing forests. During the statistic period, the area of mature standing forests lost 172 thousand ha, and its stock lost 160 million m^3. With the declining of logging forest resources, the area and stock of logged young and medium-aged standing forests are up to 78.5% of the total logged area and 57.7% of total logged stock, respectively. This poses severe threats to the development of reserve resources.

• Too large logged forests and continuous ascending consumption of forest stock

The over logging of forests is very serious. The average net consumption of timbers is 370.752 million m^3 annually in China. A lot of forestlands are converted for other purposes, or illegally occupied and converted to non-forest lands. The converted forestlands to other purposes or illegally occupied forestlands are 562 thousand ha every year.

• Heavy destruction and degradation of forests

The destruction and degradation of forests leads to serious soil and water erosion. The area of soil and water erosion is up to 3.67 million km^2, 38% of country land and increased by 10 thousand km^2 annually. The area of land desertification is increasing continuously and up to 2.62 million km^2, much more than the national farmland area, and increased by 6700 km^2 annually.

• Descending wild plant and animal resources

Wild plant and animal resources are descending. 15% to 20% of total species are threatened. Some thousands of plants and animals are endangered. A number of wild precious plants and animals have disappeared in China.

② The programme on the conservation and sustainable use of forest biodiversity

• The projects on shelter forest system construction in the Three-North region and the middle and lower reaches of Yangtze River were implemented.

• The construction of nature reserves and forest parks was strengthened

Until the end of 2000, 1227 nature reserves were founded, with a total area of 98.208 million ha, constituting 9.85% of the country land. 1050 forest parks were founded, with a total area of 9.825 million ha. The construction of nature reserves and forest parks provides effective conservation of forest biodiversity.

• The conservation of wild plants and animals resources was implemented

China has compiled the Construction Planning on the National Conservation Engineering of Wild Plants and Animals and their Habitat, the Construction Planning on National Wild Zoological Gardens, the Five-year Planning on the Implementation of the Engineering of Protecting Giant Panda and Its Habitat in China and so on. At present, China initially finished the national investigation on wild plant and animal resources, and at the stage of inspection and appraisal of the investigation.

• The forest resources management was strengthened

Through implementation of the Circular on Protecting Forest Resources, Cracking Down on Converting the Forest Lands to Arable Lands and Illegally Possessing Forestlands issued by State Council and the Circular on Resuming Suspension of Forestland Possession by Different Projects issued by General Office of State Council, the worst tread to convert forestlands to arable lands and to possess forest lands was effectively checked, and the pace of converting arable lands back to forestlands was accelerated.

• The protection of forest resources was strengthened

The damaged rate due to forest fire should been controlled under 0.1%, and the occurrence rate of forest pest and disease should been controlled under 6%.

• The construction of forestry legal system was strengthened

China amended the Forest Law on April 29,1998, and promulgated the Implementation Regulation on Forest Law, the Regulation on Conservation of Natural Forests, the Administrative Regulation on Forest Lands, the List of Key National Protected Wild Plants (the first part), the Administrative Regulation on Import and Export of Wild Plants and Animals and so on. China initially built up an effective supervision and enforcement system for forestry.

If a developing country Party or a Party with economy in transition -	
4. Has your country requested assistance through the financial mechanism for projects that promote the implementation of the focused work programme an forest biological diversity? (Decision IV/7, paragraph 7)	
a) no	
b) yes (please give details below)	√

China obtained some grants from GEF since 1991. The funds directly used for the purpose of forest biodiversity conservation include:

China Nature Reserve Management, 17.90 million U.S. dollars, mostly used for the construction and management of forest nature reserves.

Preparation for the Natural Forest Biodiversity Conservation Project, 350 thousand U.S. dollars.

In addition, during the 9th Five-year Plan period, China obtained 235 million U.S. dollars from World Bank for afforestion, including Forest Resource Development and Conservation Programme with 185 millions U.S. dollars, and Poverty Region Forestry Development Programme with 68 millions U.S. dollars.

With the financial support from GEF and World Bank, China strengthened the construction and management of forest ecosystem nature reserves, and the conservation and development of forest resources, which promoted to some extent the forest biodiversity conservation. But, as the main financing mechanism of the Convention on Biological Diversity, GEF has limiting funds, with limited financial support to China. Because there is many tasks for China to conserve forest biodiversity and a large amount of funds are needed, China hopes that GEF would offer financial assistance continuously.

Programme element 1: Holistic and inter-sectoral ecosystem approaches that integrate the conservation and sustainable use of biological diversity, taking account of social and cultural and economic considerations

5. Has your country identified methodologies for enhancing the integration of forest biological diversity conservation and sustainable use into an holistic approach to sustainable forest management at the national level? (Work Programme, paragraph 13)	
a) no	
b) yes – limited extent (please give details below)	
c) yes – significant extent (please give details below)	√
d) not applicable	
6. Has your country developed methodologies to advance the integration of traditional forest-related knowledge into sustainable forest management, in accordance with Article 8(j)? (Work Programme, paragraph 14)	
a) no	
b) yes – limited extent (please give details below)	√
c) yes – significant extent (please give details below)	
d) not applicable	
7. Has your country promoted cooperation on the conservation and sustainable use of forest biological resources at all levels in accordance with Articles 5 and 16 of the Convention? (Work Programme, paragraph 15)	
a) no	
b) yes – limited extent (please give details below)	
c) yes – significant extent (please give details below)	√
d) not applicable	
8. Has your country promoted the sharing of relevant technical and scientific information on networks at all levels of protected forest areas and networking modalities in all types of forest ecosystems? (Work Programme, paragraph 17)	
a) no	
b) yes – limited extent (please give details below)	√

c) yes – significant extent (please give details below)	
d) not applicable	

Programme element 2: Comprehensive analysis of the ways in which human activities, in particular forest-management practices, influence biological diversity and assessment of ways to minimize or mitigate negative influences

9. Has your country promoted activities for an enhanced understanding of positive and negative human influences on forest ecosystems by land-use managers, policy makers, scientists and other relevant stakeholders) (Work Programme, paragraph 29)	
a) minimal activity	
b) yes – limited extent (please give details below)	
c) yes – significant extent (please give details below)	√
d) not relevant	
10. Has your country promoted activities to assemble management experiences and scientific, indigenous and local information at the national and local levels to provide for the sharing of approaches and tools that lead to improved forest practices with regard to forest biological diversity? (Work Programme, paragraph 30)	
a) minimal activity	
b) yes – limited extent (please give details below)	√
c) yes – significant extent (please give details below)	
d) not relevant	
11. Has your country promoted activities with the aim of providing options to minimize or mitigate negative and to promote positive human influences on forest biological diversity? (Work Programme, paragraph 31)	
a) minimal activity	
b) yes – limited extent (please give details below)	
c) yes – significant extent (please give details below)	√
d) not relevant	
12. Has your country promoted activities to minimize the impact of harmful alien species on forest biological diversity? (Work Programme, paragraph 32)	
a) minimal activity	
b) yes – limited extent (please give details below)	√
c) yes – significant extent (please give details below)	
d) not relevant	

13. Has your country identified means and mechanisms to improve the identification and prioritisation of research activities related to influences of human activities, in particular forest management practices, on forest biological diversity? (Work Programme, paragraph 33)	
a) minimal activity	
b) yes – limited extent (please give details below)	√
c) yes – significant extent (please give details below)	
d) not relevant	

14. Does your country hold research results and syntheses of reports of relevant scientific and traditional knowledge on key forest biological diversity issues and, if so, have these been disseminated as widely as possible? (Work Programme, paragraph 34)	
a) not relevant	
b) some relevant material, but not widely disseminated	
c) significant material that could be more widely disseminated (please give details below)	√
d) yes - already widely disseminated (please give details below)	
15. Has your country prepared case-studies on assessing impacts of fires and alien species on forest biological diversity and their influences on the management of forest ecosystems and savannahs? (Work Programme, paragraph 35)	
a) no – please indicate below whether this is due to a lack of available case-studies or for other reasons	
b) yes – please give below any views you may have on the usefulness of the preparation of case-studies for developing a better biological understanding of the problem and/or better management responses.	√

Programme element 3: Methodologies necessary to advance the elaboration and implementation of criteria and indicators for forest biological diversity

16. Has your country assessed experiences gained in national and regional processes, identifying common elements and gaps in existing initiatives and improving indicators for forest biological diversity? (Work Programme, paragraph 43)	
a) minimal activity	
b) yes – limited assessment made (please give details below)	√
c) yes – significant assessment made (please give details below)	
d) not relevant	
17. Has your country carried out taxonomic studies and inventories at the national level which provide for a basic assessment of forest biological diversity? (Work Programme, paragraph 43)	
a) minimal activity	
b) yes – limited assessment made (please give details below)	√
c) yes – significant assessment made (please give details below)	
d) not relevant	

If you have ticked any of the boxes in questions 5 to 17 above which invite you to provide further details, please do so here.

(Information can include descriptions of methodologies and of activities undertaken, reasons for success or failure, outcomes and lessons learned)

Detailed explanation on question 5

China pays high attention to forest biodiversity conservation, takes a lot of measures, promotes forest biodiversity conservation and sustainable use, and brought it into sustainable forest management plan. The concrete measures are as follows:

• In order to restore and reconstruct the destroyed or degraded forest ecosystems, China implemented the natural forest conservation project, overall suspended logging natural forests in the upper reach of Yangtze River and the upper and middle reaches of Huanghe River, decreased timber production in the key national forest areas such as North-East, Inner Mongolia and so on, at the same time paid attention to conserving the natural forest resources in other areas.

• In order to conserve ecological environments and increase the area of vegetations, China has implemented a series of key projects on shelter forest system construction, such as those in the Three-North region, and the middle and lower reaches of Yangtze River, since the end of 1970s. These projects are involved in 13 provinces, autonomous regions and municipalities in China, with largest coverage and most abundant contents.

• After the big flood in 1998, China has been implementing the pilot project to convert steep arable lands (with slope more than 25 degrees) to forest and grass lands. The comprehensive implementation of the project has been formally launched in 2001.

• China strengthened the conservation and management of wild plants and animals, strictly cracked down on illegally hunting wild animals, digging wild plants and smuggling wild plants and animals.

• China has implemented the forest ecology compensation policy since 2001, which promotes the conservation of forest biodiversity.

• China strengthened the environmental management of forest construction projects, suspended all development construction projects resulting in the degradation of ecological function of forests, and implemented environmental impact assessment system for all natural resources development projects and afforestation projects.

Detailed explanation on question 6

China is a country with long history and multi-nationality. During thousands of years of production and living practices, China accumulated much traditional knowledge related to forests. These traditional life style and knowledge are especially important to the conservation and sustainable use of forest biodiversity. China pays high attention to the traditional knowledge that is beneficial to the conservation and sustainable use of forest biodiversity, and actively takes measures to promote the incorporation of the knowledge into forest management at national and regional levels. The main measures are as follows:

• China actively maintains and protects traditional knowledge. For example, Kunmin Institute of Botany of Chinese Academy of Sciences, and Tropical Botanical Garden of Xishuangbanna of Yunnan Province investigated and researched the traditional life style and culture of minorities in Xishuangbanna area, especially, “Spirit Mountains” of Dan Nationality, “Spirit Forests” of Hani Nationality and botanical gardens in Buddhist temples. In 1997, Kunming Institute of Botany of Chinese Academy of Sciences and Forestry Department of Yunnan Province surveyed 8 minorities who live around Jimpin watershed nature reserve, such as Miao, Yao, Tai Nationalities and so on. The experts investigated and maintain diverse traditional botanical knowledge and experiences, which come from the activities such as traditional hunting, Slash-and-burn cultivation, wild plants introduction and domestication and so on. The study is beneficial to the succession and development of the traditional knowledge on forest biodiversity conservation.

• China lays down effective measures to encourage local community to maintain diverse traditional knowledge which is left over by their ancestries and is beneficial to the conservation of forest biodiversity. Many Taoist and Buddhist resorts are fairly good sites to conserve forest biological resources. China regards religious belief, implements the policy of freedom to believe in religion, and guides positive factors of religion. This policy resulted in the fact that the Taoist and Buddhist resorts play positive roles in the conservation of forest biodiversity. Religions resorts such as Wudan Mountain in Hubei Province, Emei Mountain in Sichuang province, Taibai Mountain in Shaanxi province and Wutai Mountain in Shanxi province all become the sites where plants and animals are well protected.

• China encourages minority communities to join the conservation of biodiversity. With the assistance of corresponding government departments and international organizations, participatory management approach was implemented in some nature reserves where a number of minorities live together. This approach admits and encourages indigenous communities and women to participate in the management of nature reserves. For example,

Yi, Pumi and Mosuo nationalities live around Lugu Lake nature reserve, Yunnan province. In 1993, Yunnan province forestry department drown on the experiences of foreign countries, adopted participatory method of community forestry, organized training courses to increase the knowledge and skills of indigenous communities, which promoted the participation of indigenous communities in forest biodiversity conservation, expanded income sources of the indigenous communities and raised their living standard. Through the sustainable use of natural resources, the ecological environment and species resources that are critical to forest biodiversity are conserved.

Detailed explanation on question 7

China pays high attention to bilateral and multilateral cooperation in the field of the conservation and sustainable use of forest biodiversity.

• Multilateral cooperation. With the support of World Bank, China implemented the National Afforestation Project, the Forest Resources Development and Conservation Project, the Forestry Development Project in the Poverty Region and so on. With the support of FAO and UNDP, China implemented China's Mountainous Region Development Capability Building and Comprehensive Development Project. With the support of UNDP, China implemented the Forest Sustainable Management Capability Building Project. With the support of GEF and World Band, China implemented the Nature Reserve Management Project.

• Bilateral cooperation. Since 1993, with the cooperation of Germany, China has been implementing the Afforestation Project in Northern Shaanxi Province, the Ecological Afforestation Project in Shaanxi Province (the second phrase), the Ecological Desertification Control and Afforestation Project in Chifeng of Inner Mongolia Autonomous Region and Chaoyan of Liaolin Province, the Ecological Afforestation Project in Hebei Province, the Natural Resources Conservation Project in Nature Reserves of Sichuang Province, the Monitoring and Management Information System Project on the Three-North Region Shelter Forest System, and the Forestry Education and Training Project.

China and Russian implemented the Forest Resources Development and Utilization Cooperation Project. With the cooperation of Netherlands, China implemented the Forest Resource Conservation and Community Development Project in Yunnan Province. China and Japan implemented the project of Equipment for Soil Conservation in Upstream of Hanjiang River. With the cooperation of Australian Development and Aid Agency, China implemented the Ecological Restoration Project in the Upper Reaches of Huanghe River and Yangtze River in Qinghai Province.

Detailed explanation on question 8

China pays high attention to the exchange and sharing of scientific and technical forest information. China has established the forest resources monitoring systems at national and local levels, the forest ecological engineering benefit and assessment system, and progressively built up the monitoring network for forest resources and engineering benefits. China conducts the first-class investigation on forests at national level every 5 years to provide first-hand information on status and trend of national forest resources. As required, the corresponding provinces, autonomous regions and municipalities can arrange the second-class investigation to provide scientific basis for the compilation of forest management plans and forest resource management. As present, China has finished its fifth national investigation on forest resources.

China conducted monitoring on natural resources and biodiversity in parts of forest ecosystem nature reserves, founded the biodiversity information management system for forest ecosystem nature reserves, and the wildlife resources monitoring center.

According to the Law on the Dissemination of Agricultural Techniques and the Law on Scientific and Technological Achievement Transformation, China founded and perfected forest scientific and technological disseminating units at provincial, prefectural and county levels. These units concentrated their attention on forest biodiversity conservation and management, conducted technological services, technological training, consulting services and cooperative development, and contributed to forestry production and management departments.

In 1997, China developed the national information network on forest pest and disease control and quarantine, initially realized computer networking of forest pest and disease control information and quarantine operation at

provincial levels across the country, scientifically and quickly delivering information concerning forest pest and disease macroscopic management, and founding basis for sound decision making.

Detailed explanation on question 9

China pays high attention to disseminating the importance of forest ecosystem and biodiversity conservation for management personnel, the professional and the public, to increase their awareness. The main measures are as follows:

• China pays high attention to forest publicity, and incorporates the conservation and development of forest resources into the main indicators to examine and assess officer's achievements in their official career at all levels, enhancing the willingness and activeness of officers at different levels to conserve and develop forest resources.

• China launched a lot of colorful publicity and education activities on forest ecological environment through public media such as broadcast, film, television, newspaper and so on. According to incomplete statistics, China Central Television broadcasted over 660 items (sets) of news or programs on forestry, including 76 items of News Broadcasting, 7 series of Focus Talk, 173 items of News ’30, 108 items of China News, and 18 sets of Economy ’30.

• In order to raise the understanding and management level on forest ecological environments, China holds forestry publicity meetings and training courses regularly.

• China brought the supervisory function of public media into full play, resolutely publicized the major cases and crimes on destroying forestry resources through the media. For example, China conducted a series of publicity activities on "conserving the green, focusing on forests" in July 1997. These activities publicized a number of cases of destroying forest resources, converting forest lands to arable lands, illegally possessing forest lands, which gained the interests of the society and got good results.

• China held different kinds of activities focusing on forest ecological environments, such as exhibitions, summer camps, festivals and commemoration days. These activities popularized the knowledge of forest ecological environments and increased public awareness of forest conservation.

Detailed explanation on question 10

China mainly holds national and local forest meetings to assess and summarize the experiences, sciences and techniques of forest biodiversity conservation and sustainable use at national and local levels, and disseminates further the good experiences and practices.

Detailed explanation on question 11

In order to minimize the adverse impacts of human activities on forest biodiversity, restore and reconstruct destroyed or degraded forest ecosystems, China mainly took the following actions:

• China implemented the natural forest conservation project and suspended logging natural forests. The logging of natural forests has been suspended in the upper and middle reaches of Huanghe River and Yangtze River, and the mountains are closed for conservation and management. The Chinese government provided funds for logging-suspended regions. The central finance will compensate the loss of local financial incomes due to the suspension of logging natural forests through transfer payment. Since the initiation of the pilot project of natural forest conservation in 1998, 51.33 million ha of forests in the upper reach of Yangtze River, the upper and middle reaches of Huanghe River, Northeast China, and Inner Mongolia have been effectively conserved, and 5.988 million ha of forest vegetation were restored.

• China implemented the project to convert arable lands back to forests land or grasslands. The basic policy of the project is to restore forests and grasslands from cultivated lands, close hillsides to facilitate afforestation, provide grain instead of subsidies, and to allow individuals to sign contracts of afforestation. The central government provides gratuitous grain to farmers for re-afforestation. The standard for annual grain subsidy per hectare is 2250 kg at the upper reaches of the Yangtze River, and 1500 kg at the middle and upper reaches of the Yellow River. In the

meantime, certain cash subsidies will be provided to farmers and the standard is 300 Chinese yuan per hectare. The duration of subsidy depends on actual situation. The necessary seedling for the re-afforestation, re-vegetation and the artificial afforestation in the barren mountains suitable for afforestation shall be arranged by the forestry departments and the seedling institutions should provide gratuitous seedling to farmers. The subsidy of the seedling is 750 Chinese yuan according to the standards of establishing ecological forests which shall be provided to the seedling production institutions by government. By the end of 2000, the total area of re-afforestation and re-vegetation was 1.363 million hectares in 193 counties of 17 provinces or autonomous regions.

• China set up the forest ecological benefit compensation foundation and launched the ecological forest compensation system. The compensation foundation is composed of the central and local compensation foundations. The central ecological benefit compensation foundation is mainly used for the construction and management of public welfare forests, such as state owned forests, state owned ecological forest farms, nurseries and nature reserves and so on, compensation for the direct economic losses due to limiting the development of public welfare forests and protecting wild plants and animals, and subsidy for the construction and management of rural afforestation and public welfare forests, and the subsidy for forest pests and diseases control. The local ecological benefit compensation foundation is used for the construction and management of public welfare forests defined by local governments.

Detailed explanation on question 12

China pays attention to the prevention and control of alien species. The main measures are as follows.

• China established and perfected plant quarantine laws. The Law on Quarantine of Imported and Exported Animals and Plants was passed in 1991. There are over 200 quarantine departments established at the ports, which formulate a comparatively complete supervision and monitoring network. China also set up the examination and approval system on introduction of aquatic and terrestrial wild animals.

• China conducted the regional investigation and the research on biological control and comprehensive harnessing for a number of critical harmful alien plants, basically understood the occurrence, spreading and distribution of these alien plants across the country, and took some prevention and control measures.

• China set up the prevention and control system for forest pests and diseases, implemented the control projects on longicorn, pine moth, *Bursaphelenchus xylophilus* and *Hyphanteia cunea*.

• China has been founding over 500 national monitoring and forecasting centers since 1999, monitoring and forecasting 11 kinds of forest pests and diseases in China. Through the foundation of the national centers, the construction of local monitoring and forecasting stations of forest pests and diseases was promoted. The monitoring and forecasting network for critical forest pests and diseases was shaped across the country.

Detailed explanation on question 13

China is one of countries with most abundant forest biodiversity as well as relatively serious degradation of forest biodiversity. In order to conserve China's abundant forest ecosystems and species resources as well as to decrease the destruction of forest biodiversity due to human activities, China conducted a number of studies:

• The present situation assessment and conservation strategy on forest ecosystems and biodiversity, for example, the Study on the Structure and Function of Tropical Forest Ecosystems, the Monitoring Techniques for the Three-North Region Shelter System and Vegetation Change, the Study on the Regional Ecological Benefit Assessment for the Three-North Region Shelter System, the Quantitative Assessment on the Service Function of the Forest Ecosystems in Upper Reach of Yangtze River, and the Shaping and Endangered Mechanism of Species Diversity, Population Restoration and High-tech Conservation Measures.

• The studies on the conservation and sustainable management techniques of natural forests in state owned forest areas, for example, the Research and Development of Technology of Ecological Forest Engineering, the Improvement and Utility of Land Sloping Process in Typical Areas of Eastern China, the Study on the Establishment of Germplasm Bank of Important Broad-leafed Tree Species and Its Conserving Technology, the Study on the

Development Trend of Forest Pests and Diseases and Its Countermeasures, the Prevention and Control Techniques of Critical Forest Pests and Diseases and so on.

Detailed explanation on question 14

① Studies on forest biodiversity

China actively launched the investigation, assessment, and conservation of forest biodiversity, ecological engineering and desertification control, achieved some results and published a number of monographs, for example, the China Agenda 21— Forestry Action Plan, the Wild Endangered Precious Animals, the China's Birds, the Atlas of Key National Protected Wild Animals, the China National Action Programme for Desertification Control, etc.

② Studies on traditional knowledge

With the support of relevant international organizations, China actively conducted the collection and conservation of traditional knowledge. Kunming Institute of Botany, Chinese Academy of Science, conducted an important investigation on the traditional Slash-and-burn cultivation of Hani and Jinuo nationality communities in mountainous regions of Xishuangbanna, Yunnan Province. The study showed that many traditional approaches stressed the conservation of forests. In lands after Slash-and-burn cultivation, some flora species with economic and ecological values are often reserved, including banyan, wild mango and timber tree species. The traditional management approaches have played an indelible positive role in the conservation of species biodiversity.

The Ford foundation also provided funds for Xinshuangbanan Tropical Botanical Garden, Yunnan province, to study the relationship between the botanical gardens and the traditional religion (Buddhism) of Dai Nationality and the roles of belief in the conservation of biodiversity. The study showed that more 100 botanic varieties are regarded having direct important significance to the religion.

With the cooperation of International Center for Integrated Mountain Development (ICIMOD), Kunming Institute of Botany, Chinese Academy of Sciences, conducted the study on the relationship between forest biodiversity and the Yi Nationality traditional culture in Zixi Mountain in the central Yunnan plateau. The study showed that their totemism played an important role in the conservation of forest ecosystems, species and genetic resources.

Detailed explanation on question 15

The prevention of forest fires, pests and diseases is one of the main tasks of forest biodiversity conservation and forest ecosystem management in China. Over the past long period, China conducted extensive studies on preventing forest fires and controlling alien pests and diseases, strengthened institutional capacity buidling, popularized advanced sciences and techniques, and took active measures to prevent forest fires, pests and diseases.

1. Forest fires

A worst forest fire occurred in Daxinganling forest from May 6, to June 2, 1987. It resulted in serious ecological destruction. The relevant departments of Chinese government conducted investigation and assessment on the fire, taken active measures to restore forest resources and ecosystems injured from the fire.

① The impact assessment of forest fire on forest biodiversity and ecosystems

• The destruction of timber resources was serious. According to an investigation on forestry departments in Tahe River, Amoer, Tuqian, and Xilinji in Daxinanlin, the results showed that, in heavy-burnt areas located in main fire belt, the dead standing trees due to firing were more 70% of total trees, the standing trees were almost dead, and land cover burnt up; in the medium-burnt areas located in both sides of main fire belt, the dead standing trees due to firing were 30-70% of total trees, the young standing trees all burnt up deadly, few parts of medium-age standing tree were left, and the precious tree species such as *Pinus sylvestris* var. *Mongolica* was damaged heavily and difficult to renew; in the light-degree-burnt areas located in both sides of the medium-burnt areas, the dead standing trees were less 30% of total trees, parts of young trees burnt up deadly. Whatever sort of fire was, both shrub and grass burnt up.

• The forest soils were damaged to some degree. The withered shrub and leaf layer and semi-decomposed organic compound burnt up. The carbonization layer spread in the shape of spot or star in parts of the area. The withered shrub and leaf layer in the heavy-burnt areas burnt up, parts of semi-decomposed rough humus burnt up, but humus layer kept well. 50-60% of the withered shrub and leaf layer in medium-burnt areas was burnt. 40% of the withered shrub and leaf layer in light-degree-burnt areas was burnt.

• The loss of water resources was serious. According to investigation on the water resources in Emoer River watershed, Daxinganling, the result showed that, with the descent of forest vegetation at large extent and the decline in forest capability to conserve water, the runoff of rivers increased from 133.2 mm in early years to 169.3 mm in 1989, and during the dry season, the runoff of melted snow decreased from 33.0 mm in early years to 17.6 mm in 1989. The loss of water resources was 45 million Chinese yuan. The loss resulted in not only soil and water erosion, but also difficulty to renew the forests.

• The forest fire resulted in deterioration of environments and descent of animal and plant resources. It is complicated to calculate their losses and difficult to measure once for all, so the assessment was not conducted.

② Management measures

• The change of resources in burnt areas was clarified, and forest restoration plans were laid down.

• According to the condition and transportation of burnt areas, and the biological property of trees, the principle of "mainly naturally renewing, actively artificially renewing " was adopted.

• In order to solve the shortage of trees species, new germplasm bases were founded, and tree species was chosen according to the actual situation.

• The intensive farming approaches such as excellent varieties, nursery breeding seedlings, container breeding seedlings, engineering afforesting and so on , were adopted to construct high-quality, high-yield forests.

• The monitoring and forecasting of diseases, pests and mice were strengthened, and the comprehensive prevention and control measures were taken in time.

• The studies on air sowing, best approaches to renew forests in burnt areas, effective tools and methods for fast extinguishing fires, the impact of fires on forest environment and ecological factors, techniques of tissue culture and polyploid breeding for target tree species, and fast-growing and high-quality tree species in burnt areas were conducted.

• In order to ensure the funding, the afforestation foundation was set up, all sort of taxes were free, and the forest ecological environment tax was collected.

2. Alien species

China conducted the regional investigation and the research on biological control and comprehensive harnessing for a number of critical harmful alien plants, basically understood the occurrence, spreading and distribution of these alien plants across the country, and took some prevention and control measures.

• The studies on the investigation and control measures of longicorn, pine moth, *Bursaphelenchus xylophilus* and *Hyphantria cunea* were conducted. For example, the occurrence, harmfulness and spreading of *Anoplophlora glabripennis*, and *A. nobilis Ganglbauer* were probed, thus, different control techniques and approaches were set up, and the strategy to control longicorn in reserve, newly spreading region and early spreading region was put forward. The China General Station for the Prevention and Control of Forest Pests and Diseases analyzed the situation of damage, characteristics of occurrence, and development trend of *Bursaphelenchus xylophilus* in Jianshu, Anhui, Guangdong, Shandong, Zhejiang, Taiwan, and Hongkong, launched the control measure of "prevention first, prevention and control at the same time, designing measures according to actual situation, implementing measures according different categories, strictly blockading its spreading, and exterminating actively".

• The monitoring on forest pests and diseases was strengthened, and the system of scientifically forecasting forest pests and diseases was founded. China has been founding over 500 national monitoring and forecasting centers since 1999, monitoring and forecasting 11 kinds of forest pests and diseases in China. Through the foundation of the national centers, the construction of local monitoring and forecasting stations of forest pests and diseases was

promoted. The monitoring and forecasting network for critical forest pests and diseases was shaped across the country.

• The comprehensive harnessing engineer on forest pests and diseases was constructed. According to the characteristics of forest pests and diseases in China, the following key demonstration projects were built up. The first was the poplar pests and diseases control project, the main agents were *Anoplophlora glabripennis*, and *A. nobilis ganglbauer*. The second was pine moth control project, the main agents were *Dendrolimus punctatus*, *D. superans*, *D. tabulaeformis*, *D. spectabilis* and *D. latipennis*. The third was dangerous pests and diseases control project, the main agents were *Matsucoccus matsumurae*, *Hyphantria cunea*, *Hemiberlesia pitysophila* and *Bursaphelenchus xylophilus*.

• In addition, the international conference on management of alien invasive species and biodiversity was held in May 2001, Zhuhai City, China.

Detailed explanation on question 16

① Assessment of experiences of forest biodiversity

In order to raise the management level of forest biodiversity in China, Chinese government perfected the corresponding policies and laws on the management of forest biodiversity, held different forestry conferences, continuously assessed and improved the conservation and management of forest biodiversity.

• Amending and perfecting corresponding policies and laws on forest biodiversity

The standing committee of National People's Congress passed the decision to amend Forest Law on April 29, 1998, and the Regulation for Implementation of Forest Law was promulgated on January 29, 2000. These efforts made corresponding laws and regulations more concrete and more operational. With the implementation of amended Forest Law, some provinces or autonomous regions started formulating local forest regulations or amending local forest management rules into regulations. On August 5, 1998, the State Council promulgated Circular on Protecting Forest Resources, Preventing Converting Forests to Arable Lands and Illegally Possessing Forestlands. On July 30, 1999, General Office of the State Council promulgated Circular on Resuming Suspension of Forestry Lands Possessed for Different Projects. The promulgation and implementation of these laws and regulations played important roles in forest administration and resources management according to corresponding laws, guiding forest biodiversity conservation, and promotion of sustainable development of forestry.

For the sake of implementation of above laws, China launched a lot of enforcement examination on such laws. For example, the standing committee of National People's Congress organized 2 enforcement examination groups to check up the implementation of Forest Law in Sichuang Province, Guangxi Autonomous Region, Heirongjiang Province, and Inner Mongolia Autonomous Region. The inspections played important roles in supervising forest management of corresponding forestry departments according to laws, accelerating the pace of vegetation restoration and afforestation, as well as initially checking the worst trend of illegally approving, possessing forestlands and converting forest lands to arable lands.

• Holding different conferences on forestry resources management

The corresponding department of the State Council regularly convenes the conference of the leaders of provincial forestry departments every year, to lay down critical strategy on forestry development, implement policies and laws, conclude experiences, and to organize future important tasks of forestry. The provincial governments also hold regular forestry conferences. For example, Shanxi, Zhejiang, Henan, Hubei, Anhui, Guangdong, Guangxi, Sichuang, and Guizhuo provinces held provincial forestry conferences, organized afforestation, natural forest conservation, and the construction of forestry ecological environments.

In addition, the corresponding department holds specific conferences on key forestry ecological projects, afforestation, forest fire prevention, forest pests and diseases control, construction of forest parks, and forest administrative enforcement.

Through hardworking in many years, it became a system to hold forestry conferences, which promoted the rectification of defeats in the management of forestry resources, spreading of good experiences and achievements, continuous perfection of management indicators and conservation measures of forest biodiversity.

② Formulating the planning indicators of forest biodiversity

For the sake of raising conservation and management level of forest biodiversity in China, China set up the planning and objectives for the conservation and development of forest biodiversity in next several years, that is:

• State Council promulgated the Planning on National Ecological Environment Construction in 1998, clarified general objectives of national ecological environment construction. It is suggested that, before 2010, the harnessed area of soil and water erosion rises by 600 thousand km^2, the treatment area of desertification is up to 22 million ha, the harnessed grasslands are up to 33 million ha, the forest area increases by 39 million ha with forest coverage over 19%.

• China compiled the Planning on Forest Nature Reserve System Construction. The planning is aimed that, before 2005, the number of national forest nature reserves rises by 224, and their area rises by 15 million ha. At the same time, combined with the project of national natural forest conservation, a number of forest nature reserves are founded or enlarged, and their area is up to 3 million ha. A number of wild plant and animal nature reserves are founded in other areas with abundant biodiversity, and their area is no less than 5 million ha.

• Forest fires are brought under control basically. The damaged rate due to forest fire is less than 0.1%, and the occurrence rate of forest pests and diseases is less than 6%.

Detailed explanation on question 17

From the beginning of 1950s, China has started the inventory of forest biodiversity. Based on the investigations and studies in 50 years, a lot of the first-hand materials were accumulated, and a series of catalogues were published. For example, the Flora of China, the Fauna of China, the Cryptograms of China, the Vegetation of China, the China Plant Red Data Book, the Chinese Endangered Animals Red Data Book. China has established a number of databases and information networks, such as China forest distribution database and China forest resources database and so on.

Some animal and plant specimen halls with regional characteristics were established in such forest and wildlife nature reserves as Wuyishan national nature reserve and Changbaishan national nature reserve.

The basic studies on taxonomy and inventory are very weak in China. The national action plan on taxonomy is lack. Therefore, henceforth, centered on the basic research and key problems of forest biodiversity, the studies on taxonomy and inventory should been strengthened.