

Thematic Report on Mountain Ecosystems

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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 preparation progress of this special report is as following:

1. At the beginning of September, 2002, under the commission of China CBD Execution Office, Nanjing Institute of Environmental Science of the State Bureau of Environmental Protection began to organize experts from departments of agriculture, forestry, construction, education, environmental protection, CAS, etc. to prepare the *Special Report on Ecosystems of Mountainous Regions*.
2. According to the format of case reports, participating parties collect and compile information on relevant policies and regulations, biodiversity status of montane ecosystem, protection and management status, and international cooperation, and then draw up the first draft of the case report.
3. Participating parties hold several meetings to discuss the first draft, to put forward revision suggestions and to supplement relevant information in order to finish the suggestion-requested draft of the case report.
4. Submit the suggestion-requested draft of the case report to China CBD Execution Office for further revision and report to the State Bureau of Environmental Protection.

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Mountain Ecosystems

1. What is the relative priority your country accords to the conservation and sustainable use of biological diversity in mountain ecosystems?					
a) High	X	b) Medium		c) Low	
2. How does your country assess the resources available for conservation and sustainable use of biological diversity in mountain ecosystems, both domestic and international?					
a) Good		b) Adequate		c) Limiting	X
3. Has your country requested financial assistance from GEF for funding the activities for conservation and sustainable use of biological diversity in mountain ecosystems?					
a) no					
b) yes, please provide details					X

Assessment, Identification and Monitoring

4. Has your country undertaken any assessment of direct and underlying causes of degradation and loss of biological diversity of mountain ecosystems?	
a) no, please specify the reasons	
b) yes, please specify major threats and their relative importance, as well as gaps	X
c) If yes, please specify the measures your country has taken to control the causes of loss of mountain biodiversity	X
5. Has your country identified taxonomic needs for conservation and sustainable use of biological diversity of mountain ecosystems?	
a) no, please specify the reasons	
b) yes, please specify	X
6. Has your country made any assessment of the vulnerability or fragility of the mountains in your country?	
a) no, please specify the reasons	
b) yes, please specify the results and observed impacts on mountain biodiversity	X
7. Has your country made any assessment important for conservation of biological diversity of mountain ecosystems at the genetic, species and ecosystem levels? (You may wish to use the Annex I of the Convention for categories of biodiversity important for conservation)	
a) no, please specify the reasons	
b) yes, some assessments or monitoring undertaken (please specify)	X
c) yes, comprehensive assessments or monitoring programmes undertaken (please specify where results can be found, and opportunities and obstacles, if any)	

Regulatory and Information System and Action Plan

8. Has your country developed regulations, policies and programs for conservation and sustainable use of biological diversity in mountain ecosystems?	
a) no	
b) yes, please specify sectors	X
9. Has your country applied the ecosystem approach (adopted at COP 5) in the conservation and sustainable use of biological diversity in mountain ecosystems?	
a) no	
b) yes, please provide some cases or examples	X
10. Does your national biodiversity strategy and action plan cover mountain biological diversity?	
a) no, please specify why	
b) yes, please give some information on the strategy and plan, in particular on mountain biodiversity	X
11. Has your country disseminated the relevant information concerning management practices, plans and programmes for conservation and sustainable use of components of biological diversity in mountain ecosystems?	
a) no	
b) yes, please provide details where information can be retrieved concerning management practices, plans and programmes	X

Cooperation

12. Has your country undertaken any collaboration with other Parties for conservation and sustainable use of biological diversity in mountain ecosystems at the regional level or within a range of mountains?	
a) no	
b) yes, please specify the objectives of this collaboration and achievements	X
13. Has your country signed or ratified any regional or international treaty concerning mountains?	
a) no	X
b) yes, please specify which treaty and provide as much as possible a report on the progress in the implementation of the treaties, including any major constraints in the implementation of the treaties	

Relevant thematic areas and cross-cutting issues

14. Has your country taken account of mountain ecosystems while implementing thematic programmes of work on agricultural; inland waters; forest; and dry and sub-humid lands biological diversity?	
a) no	
b) yes – but in only one or two thematic programmes of work	X
c) yes, included in all programmes of work	
d) if yes, please specify details	X
15. Has your country taken any measures to ensure that the tourism in mountains is sustainable?	
a) no , please specify why	
b) yes, but in early stages of development (please specify the reasons)	
c) in advanced stages of development (please specify the reasons)	X
d) relatively comprehensive measures being implemented (please specify the reasons)	
16. Has your country taken any measures to protect the traditional knowledge, innovations and practices of indigenous and local communities for conservation and sustainable use of biological diversity in mountain ecosystems?	
a) no	
b) not relevant	
c) yes, but in early stages of policy or programme development	
d) yes, in advanced stages of development	
e) some programmes being implemented	X
f) comprehensive programmes being implemented	
17. Has your country developed any programmes for the protection of natural and cultural heritages in the mountains?	
a) no	
b) yes, please provide some information in the programmes	X
18. Has your country established protected areas in mountains?	
a) no	
b) yes, please specify the percentage of mountains under protected areas out of total mountain areas in your country	X
19. Has your country undertaken any activities to celebrate the International Year of Mountains and Eco-tourism?	
a) no	
b) yes, please specify	X

Case-studies

Please provide case-studies made by your country in conservation and sustainable use of biological diversity in mountain ecosystems.

1. Ecological reconstruction of Karst petrified and desertified mountainous region

Luodian county in Guizhou province locates in the transitional belt from Guizhou Plateau to Guangxi Hilly Land with weak natural condition and fragile ecosystem. Under the disturbance of human activities, it suffers serious petrification and desertification. During the ecological reconstruction of Karst petrified and desertified mountainous region, the Dagan Village in the county takes chance of “Level off hilltops and turn them into flat fields, use of rain”, breaks natural succession sequence, and restrains the converse succession of the sight from forest to scrub to petrified and desertified grassland and bare land, so that an ecosystem with a certain productivity and stability has been formed to provide the most basic guarantee of local economic and social development. It is a referencable model of ecological reconstruction of Karst petrified and desertified mountainous region.

2. Restoration and reconstruction of tropical and subtropical degraded ecosystems

Heshan City in Guangdong Province uses the succession principle of forest restoration, takes the lead in initiating the artificial forest reconstruction of single tree species, builds up a demonstration field of 10 ha., and screens out over 40 local tree species to introduce into the pioneer single tree community of *Pinus massoniana*, *A.auriculiformis*, *A.mangium*, etc. in order to accelerate the restoration progress of the communities. In the same time, it also makes use of advantages of catchment area in hill lands to create a composite ecological model of agriculture and forestry, and achieves good social, economic and ecological benefits.

3. Ecological agricultural construction of vulnerable montane ecosystem in Central and Southern Shandong

Qimeng mountainous region lies in the edge of vulnerable ecological belt in Northern China. For a long time, the disadvantageous natural condition and artificial disturbance have resulted in the degradation of agricultural ecosystem and slow social and economic development. Since 1983, started with the control of small valleys, the region has developed ecological agricultural economy through scientific ecological plans, so that it has maintained not only the ecological balance of mountainous regions but also the sustainable development of agriculture. By 1995, the forest cover in 9 counties of Qimeng mountainous region had increased to 21%. 37.8% area of soil loss had been in control. The total production value of agriculture, forestry, animal husbandry and fishery had reached 8.7 billion RMB. Net income per person had reached 1544 RMB. It had become the first region in the whole country that broke away from poverty in a whole.

Further comments

Further explanation for Issue 1:

The area of mountainous regions accounts for 74.8% of the total area of China. About 70% of population depends on montane resources. More than 80% of minority nationalities live in mountainous regions. More than 90% of frontier lines locate in mountainous regions. Mountainous regions offer 70% of freshwater resources in China. China is one of the richest countries in biodiversity in the world. Montane ecosystems have rich natural resources and are the important part of China's biodiversity. The major biodiversity centers in China locate in mountainous regions. The biodiversity conservation of montane ecosystem plays a great role in both sustainable development of Chinese social economy but also the global biodiversity conservation. Therefore, Chinese government highly emphasizes the biodiversity conservation and sustainable use of montane ecosystem and has listed it as a priority in *China Biodiversity Conservation Action Plan*.

Further explanation for Issue 2:

China is the biggest developing country and a mountainous country. The hilly lands and mountainous regions account for 74.8% of the total area. Most montane ecosystems are vulnerable with heavy environmental pollution and ecological damage. So the task of biodiversity conservation in montane ecosystems is very onerous. Although Chinese government has already made a huge investment in the biodiversity conservation of montane ecosystem, there is a great gap between the investment and the real need. International support in terms of necessary technology and fund is needed.

Further explanation for Issue 3:

With the support of GEF, China is implementing some programs relevant to the biodiversity conservation and sustainable use of montane ecosystems, including:

- (1) China wetland biodiversity conservation and sustainable use programme. The Ruoergai wetland at the boundary between Sichuan and Gansu is listed as a demonstration project.
- (2) Biodiversity conservation programme in Luobubo Nature Reserve in Xinjiang
- (3) China Nature Reserve Management Program. Xishuangbanna in Yunnan, Wuyishan in Fujian, Shennongjia in Hubei, Foping, Zhouzhi, Niuliang, Dabaishan, Changqing nature reserves in Qinliang, Shanxi and Wuyishan Nature Reserve in Jiangxi are listed as demonstration projects.

- (4) Cooperation programme of biodiversity conservation in Yunnan highland ecosystem with multi-sections and local participation.

At present, China is at the initial preparation stages of Biodiversity Conservation Programme in Montane Ecosystems, Ecosystem Protection Programme in Qinghai-Tibet Plateau, etc.

Further explanation for Issue 4:

China is a mountainous country. The area of mountainous regions accounts for 74.8% of the total area. Chinese mountainous regions are vulnerable, with degradation of high speed, large area, severe degree and various types. China has evaluated the factors in biodiversity degradation and loss of montane ecosystems and found that there were 2 factors. The internal cause is the vulnerability and instability of montane ecosystem. The drive and external cause is long-term human disturbance. The biodiversity degradation of montane ecosystem is the results of both the internal and external factors. It's conservatively estimated that the area of degraded mountainous regions in China reaches more than 45% of the total area of mountainous regions in China. But it's very difficult to exactly describe the degradation speed of China ecosystems, because there are great disparities of degradation types and degrees in different regions, and there has no national degradation investigation yet.

To control the degradation of montane ecosystem and the loss of biodiversity, some departments and regions in China have taken many measures to restore and reconstruct the degraded montane ecosystem and biodiversity.

1. Develop demonstration projects of restoring and reconstructing degraded montane ecosystems and biodiversity.

China is one of the earliest countries to control small valleys in the world. Early in 1950s, many regions especially the Yellow River initiated the control of small valley and accumulated many experiences. In 1980, in Ji County, Shanxi, the Ministry of Water Resources held an experience exchange meeting of controlling small valleys of 13 provinces, autonomous regions and municipalities directly under the Central Government. It formally put forward "integrated control of soil and water conservation in small valleys", and developed *Control Measures of Soil and Water Conservation in Small Valleys*. Since then, the control in the unit of a small valley has spread widely all over the country.

To restore and reconstruct degraded or damaged ecosystems, Chinese government has taken great measures to implement Natural Forest Resources Protection Project, Key

Protection Forest System Construction Project and Project of Returning Land for Farming to Forestry or Grassland in the Three North and Middle and Lower Reaches of Yangtze River. In 1998, after trial project of protecting natural forest resources, 51.33 million ha. forest at the upper reaches of Yangtze River, middle and upper reaches of Yellow River, and Northeast China and Inner Mongolia project regions had been protected effectively, and 5.988 million ha. forest vegetation had been restored. By the end of 2001, 1,149,000 ha artificial forest, 397,000 ha. forest spread by flying, 5,016,000 ha. forest grown by sealing the mountain, 92,745,000 ha. protected forest and 13,885 ha. seedling garden have been completed. After long-term efforts, the protection forest system project construction has achieved great progress. The Three North protection forest project has grown 27.92 million ha. forest. About 12% desertified land in the Three North and 30% area of soil and water loss has been controlled. About 4 million ha. bare land has become oasis. 5.29 million ha. forest has been grown in the protection forest project at the middle and upper reaches of Yangtze River. Half of the project in 271 counties has returned bare land to forest. Soil and water loss in over 100 counties has been controlled.

In 1990s, measures such as artificial grass growing, pasture spread by flying, afforestation by enclosure had been taken to combine the grassland and pasture cultivation with ecological construction. The area of grass growing was increasing year by year and notable effects had been achieved. In the past 10 years, the area of grass growing per year in the whole country had reached over 2.7 million ha., and 15 million ha. grassland and 10 million ha. pasture had been completed.

2. Strengthen scientific research

China has strengthened scientific research on restoration and reconstruction of tropical and subtropical degraded ecosystem. The CAS ninth five-year key project of “restoration and reconstruction of tropical and subtropical degraded ecosystem” has achieved tremendous ecological, economic and social benefits. For instance, Heshan City in Guangdong Province uses the succession principle of forest restoration, takes the lead in initiating the artificial forest reconstruction of single tree species, builds up a demonstration field of 10 ha., and screens out over 40 local tree species to introduce into the pioneer single tree community of *Pinus massoniana*, *A.auriculiformis*, *A.mangium*, etc. in order to accelerate the restoration progress of the communities. Wuhua Station in Guangdong has effectively controlled soil and water loss and improve local agricultural ecosystem by generalizing the vetiver planting technique. Xiaoliang Station in Guangdong has successfully restored and reconstructed tropical monsoon rain forest vegetation in bare land at a large scale. The pattern extended to a scope of 400sq.km. in the surrounding region. An effective forestry-agriculture composite pattern has been established. The economic income highly exceeds the total input of vegetation restoration.

During the ecological reconstruction research of Karst petrified and desertified mountainous region, the Dagan Village in Luodian county takes chance of “Level off hilltops and turn them into flat fields, use of rain”, breaks natural succession sequence, restrains the converse succession of the sight from forest to scrub to petrified and desertified grassland and bare land, and creates a condition for positive succession. The economic forest on hillside with better condition, artificial shaws and forests grown by sealing the mountain on the hillside with worse condition enrich the species in the ecosystem, improve the structure of ecosystem, and enhance biomass. In addition, returning farmland to forest on hillside can conserve soil, prolong the time to transfer precipitation to groundwater and highly reduce soil and water loss. An ecosystem with a certain productivity and stability has been formed to provide the most basic guarantee of local economic and social development. It is a referencable model of ecological reconstruction of Karst petrified and desertified mountainous region.

Further explanation for Issue 5:

China has no national biological taxonomic need of promoting biodiversity conservation and sustainable use of montane ecosystem. However, some single researches on typical biological taxonomy in mountainous regions have been initiated.

In 1997, Zhejiang Forestry Office, Zhejiang Forestry College, Hangzhou University, Zhejiang Nature Museum, etc. initiated a comprehensive investigation and taxonomic research on plant and animal resources in Qingliangfeng Nature Reserve in Zhejiang. Qingliangfeng Nature Reserve lies within Linan City, Zhejiang Province. The area of mountainous region accounts for 86% of the total area. It has rich biological resources and is a region with good preservation of southeastern vegetation and species.

Qingliangfeng has 1356 seed plants, belonging to 687 genera in 144 families. Among them, gymnosperms belong to 22 species in 19 genera in 7 families, while angiosperms belong to 1334 species in 668 genera in 137 families. Among seed plants, woody plants belong to 477 species in 259 genera in 74 families, while herbaceous plants belong to 879 species in 428 genera in 70 families. There are many immemorial relict plants including 37 global monotypic genera, 40 Chinese monotypic genera, 19 Chinese endemic genera, 36 rare plants and 20 key state-protected plants. The main vegetation types in Qingliangfeng can be classified into 4 vegetation form groups, 10 vegetation types, 16 formation-groups and 21 association groups. The vegetation forms mainly include conifer forest, mixed forests of conifers and broad-leaf trees, defoliated broad-leaf forests, evergreen broad-leaf forests, montane bosquets, bamboo forests and meadows.

The 105 bird species in Qingliangfeng belong to 30 families in 11 orders. 11 bird species

are listed in the second class state-protected birds. The 36 mammal species and subspecies belong to 34 genera in 15 families in 8 orders. According to the number of species, they mainly belong to the order Carnivora (18 species in 4 families), the order Artiodactyla (7 species in 3 families) and the order Rodentia (5 species in 3 families). 4 species are listed in the first class state-protected mammals and 6 species are listed in the second class state-protected mammals. 25 amphibian species belong to 7 families in 2 orders. Among them, there are 14 species in the family Ranidae Bonaparte in the order Anura, accounting for 55% of the total number of species. 47 reptile species belong to 9 families in 3 orders. Among them, the species in the order Squamata is the most, 36 species. 29 species in the family Colubridae, accounting for 61% of the total number of species. 43 fish species belong to 11 families in 5 orders. Among them, the species of the family Cyprinidae are the most, 26 species, accounting for 60% of the total number of species. 772 insect species belong to 159 families in 24 orders.

The research results indicate that Qingliangfeng Nature Reserve has rich biological resources and biodiversity. The forest vegetation is well preserved with complex structure and relatively complete growth. The whole Qingliangfeng forms an ecosystem of harmonious function and structure with the principal body of forests. This ecosystem contains abundant species resources and a reproductive place of species heredity. However, due to artificial disturbance, the varieties and amount of wild animals in Qingliangfeng region are decreasing to an extent of severely endangering the survival of wild animals. Taxonomists suggest that the extent of protected area should be reasonably expanded and more people should be organized to take on division and investigation work to protect forest vegetation. The popularization of relevant laws, such as *Law on the Protection of Rare Animals and Wild Animal Protection Law*, should be enhanced. At the same time, advantageous conditions should be created to research on fauna and ecology of rare animal populations, to determine the amount of population and dynamics, and to offer theoretical basis of protecting and reasonably using wild animals.

Further explanation for Issue 6:

The concerned departments of Chinese government have initiated preliminary evaluation on the basic status of national ecosystems including montane ecosystems. The results imply that Chinese montane ecosystems are still vulnerable. On the whole, the extent, degree and impact of ecological damage are expanding.

1. In most mountainous regions in China, soil and water loss is severe, and the soil degradation mainly caused by land desertification and salinization is expanding. China is one of the most severe countries in soil and water loss in the world. The soil and water

loss is expanding in both area and degree. Because of the degradation of ecosystem, the area of soil and water loss is about 356 sq.km., accounting for 37.08% of the whole territory. The total soil loss every year reached 5 billion ton. Soil and water loss directly leads to soil desertification which reduces volumes of land resources and deteriorates the degradation of regional ecosystem. It's hard to protect and promote ecosystem and biodiversity in such vulnerable montane ecosystems.

2. China is one of the lowest countries in forest possession amount per person in the world. Presently, Chinese forest cover is 16.65%, lower than the global average level of 31.4%. In recent years, Chinese forest cover is increasing. However, the increase in area occurs mainly in artificial forests and juvenile forests, while the natural forests that play the most important role in protecting ecosystems and mature forests with relatively obvious ecological benefit are still losing. In China, the area of existing natural forests is 87,264,000 ha. And their accumulation is 8.375 billion m³. Among these, the area of mature forests is only 19,265,000 ha.. The decrease of the area of natural forests leads to the decrease or extinction of wild animals inhabiting forests. Meanwhile, artificial forests go against biodiversity conservation because they have single tree species, many of which are at the same age, have less layers, and are less resistant to pests and diseases and most of trees are planted in a concentrated region.

3. The coefficient of utilization of lands for forestry is low and the loss of forest resources is severe.

The area of lands for forestry in China is 257 million ha., while the real area of forests is only 129 million ha.. So the coefficient of utilization is 50.1%. For example, there are many vestigial forests, open forests and shrubbery in forestlands. The accumulation per unit is little. The wildwood is evolved into secondary forest. There are lots of exploitation and fire ruins. The loss of forestland resources is severe. During the fourth census of forest resources, 11,038,100 ha. forestland had turned into non-forestland, the speed is 2,207,000 ha. per year. High loss of forest land resources leads to high degeneracy in the ecological function of forests and grasslands, reduction in productivity and loss of biodiversity.

4. Rare wildlife is near to extinction.

With the degradation of ecosystem and habitats of wildlife, the distribution of rare species is prominently restrained. As a result, the amount of population is sharply reducing. Some is extinct. Some is near to extinction. The number of endangered or near to endangered species in higher plants has reached 4000-5000, accounting for 15-20% of the total number of higher plants in China. The distribution and number of many species which had wide distribution and abundant number are now sharply decreasing. Among 640 global endangered species listed in CITES prepared by UN, there are 156 Chinese

species, 1/4 of the total. In 1988, 258 species and populations are listed as the key state-protected wild animals. Some wild animals common in the past are now listed in the namelist of key state-protected species.

5. The quality of rural environmental has declined because of fast spreading of pollution resulted from enterprises run by members in the rural villages, irrational use of pesticide, fertilizer and agricultural membrane and release of livestock wastes. Extensive use of pesticide and fertilizer also has impacts on the protection of beneficial organisms and biodiversity. According to the preliminary survey, due to the use of pesticide for a long time, the amount of species in parts of hilly land and mountainous regions in China has declined. For example, the amount of some birds and beneficial animals is distinctly reduced.

Further explanation for Issue 7:

China has developed supervision networks of main montane ecosystems and key species and initiated lots of investigation and supervision. China has developed a national forest resources monitoring system and local forest resources monitoring systems. The investigation and supervision of forest resources are initiated actively in China. Since 1950s, all concerned departments and scientific research institutes have organized integrated investigation of biological resources in forests for many times and basically determined varieties, amount and distribution of biological resources in Chinese forest. The national first-class forest census hold once every 5 year provides first-handed information on status and trends of national forest resources. The second-class forest census arranged according to work needs of provinces, autonomous regions and municipalities directly under the Central Government provides dependable scientific guarantee of the preparation of local forest dealing plans and the management of forest resources. China has also investigated forest resources in natural forest protection project region and key ecological project region. According to the results of investigation, China has supervised the planning and implementation of natural forest resources protection project.

In 1995, investigation on national terrestrial wild animal resources was initiated. In 1996, investigation on key state-protected wild plant resources was initiated, which provided a scientific basis of better protecting rare endangered species in mountainous regions. Since 2000, China has caught out a census of nature reserves once every year, including the number, area, type, class of nature reserves, basic data of protected species and information on geological and departmental distribution. Rare endangered species (such as the giant panda) supervision networks have been developed in China.

CAS has developed 64 ecological location research stations in the whole country. About half of them are research stations of forest ecosystems location, such as Changbaishan Research Station of Forest Ecosystem Location, Dinghushan Research Station of Forest Ecosystem Location, Xishuanbanna Research Station of Ecosystem Location of Tropical Arboretum and Tropical Rain Forest, etc. CAS also has set up Chinese Ecosystem Research Network to research on the structure, function, succession and the species growth and decline of ecosystems for a long time.

Moreover, China investigated the ecosystems in western China in 2000, which laid the foundations of fully understanding the ecosystem and biodiversity in western China.

Further explanation for Issue 8:

China has prepared some laws and regulations on biodiversity conservation and sustainable use. The major laws and regulations relevant to montane ecosystem and biodiversity include:

Standing Committee of the National People's congress: *Environmental Protection Law* (1989), *Forest Law* (published in 1984, revised in 1998), *Law on the Protection of Wild Animals* (1988), *Grassland Law* (1985), *Law on Water and Soil Conservation* (1991), *Supplementary Regulation on the Punishment of Crimes of Hunting Key State-protected Rare Endangered Wild Animals* (1988), etc.

State Council: *Circular Order on the Strict Protection of Rare Wild Animals* (1983), *Provisional Regulations on the Management of Scenic Sites* (1985), *Management Regulations on the Protection of Wild Medical Resources* (1987), *Regulations on Nature Reserves* (1994), *Regulations on the Protection of Wild Plants* (1996), *Notification on Further Strengthening the Management of Nature Reserves* (1998), etc.

State Bureau of Environmental Protection: *Notification on Strengthening the Work of Nature Reserves* (1987), *Notification on Strengthening the Ecosystem Management of Natural Resources Exploitation and Construction Project* (1994), *China 21st Agenda—Environmental Protection* (1994), *Notification on Issues Relevant to Environmental Management in Nature Reserve Development Projects* (1999), etc.

State Bureau of Land Management and State Bureau of Environmental Protection: *Land Management Measures of Nature Reserves* (1995).

State Bureau of Forestry: *Management Measures of Forests and Wild Animal Type Nature Reserves* (1985), *Detailed Rules of the Implementation of Forest Law* (1986),

Implementation Regulations on the Protection of Terrestrial Wild Animals (1992), *Provisional Measures of Forest Land Management* (1992), *Forestry Action Plan of China's Biodiversity Conservation* (1992), *Management Measures of Forest Parks* (1993), *China 21st Agenda—Forestry Action Plan* (1995), *Management on Strengthening the Protection of Forest Scenic Resources* (2002), etc.

Ministry of Forestry and the Ministry of Agriculture: *Namelist of Key State-protected Wild Animals* (1988), *Namelist of Key State-protected Wild Plants (the First Block)* (1988).

Ministry of Agriculture: *Biodiversity Conservation Action Plan of Chinese Agricultural Departments* (1993), *The Ninth Five-year Plan and 2010 Plan in Agricultural Environmental Protection* (1995), *Detailed Rules of the Implementation of Stud and Breeding Poultry Management Regulation* (1998), etc.

Ministry of Construction: *Measures of the Implementation of Provisional Regulation of Scenic Sites* (1987), *Management Regulations on the Construction of Scenic Sites* (1993), *Safety Management Standards of Scenic Sites* (1995), etc.

Ministry of Land Resources: *Notification on Earnestly Working on Demarcation of National Nature Reserves and the Determination of the Land Right* (1998).

State Bureau of Tourism: *Notification on the Implementation of Urgent Notification of the State Council on Strengthening to Severely Strike Crimes of Destroying Wild Animal Protection* (1991) .

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Ministry of Railway: *Notification on Transmitting Urgent Notification of the State Council on Strengthening to Severely Strike Crimes of Destroying Wild Animal Protection* (1991).

Ministry of Commerce: *Notification on Strictly Prohibiting the Purchase of and Dealing With Rare Wild Animal and Their Productions* (1986).

Supreme People's Court, Supreme People's Procuratorate, Ministry of Forestry, Ministry of Public Security and State Administration for Industry and Commerce: *Notification on*

Strictly Striking Illegal Activities of Hunting, Purchasing, Re-grating and Smuggling Wild Animals (1990).

Further explanation for Issue 9:

The ecosystem type recommended by COP plays an important guiding role in the protection and sustainable use of montane ecosystems and biodiversity. Although the ecosystem type is new to China, China has adopted the ideas, principles and means advocated by the ecosystem type during the long-term protection and exploitation of montane ecosystem. 3 cases are provided at the following of the special report.

Further explanation for Issue 10:

China's Biodiversity Conservation Action Plan is published in 1993. The Action Plan has defined objectives in the 7 fields, including 26 priority action plans. Among them, those action plans involved in montane biodiversity conservation and sustainable use include: strengthen the basic research on China's biodiversity, improve national nature reserves and other protected areas network, protect genetic resources of crops and livestock, in-situ protection outside nature reserves, establish national biodiversity information and supervision network, coordinate biodiversity and sustainable use, etc.

In addition, departments of environmental protection, forestry, agriculture and ocean have developed relevant biodiversity conservation action plans. For instance, the Ministry of Forestry prepared *China's Biodiversity Conservation Forestry Action Plan* in 1992, which put forward objectives and tasks of conserving forest biodiversity:

- Establish and improve a network of national nature reserves and define the regions important to biodiversity;
- Protect wild species important to biodiversity, identify wild species important to biodiversity and those species needing protection actions;
- Establish a base of forest germ plasm resources;
- Establish a biodiversity information and supervision system, develop uniform information standard and supervision approaches, set up or improve departmental information and supervision networks;
- Develop "biodiversity managed and protected areas" to implement land sustainable use and development plans contributing to biodiversity conservation. Establish trial projects of protected areas to demonstrate effective management, etc.

Further explanation for Issue 11:

Chinese government mainly takes the following measures to disseminate information on the biodiversity conservation and sustainable use of montane ecosystems to the managers, scientific researchers and the public.

(1) Dissemination and Education

In order to disseminate laws on nature protection and knowledge of biodiversity conservation and sustainable use, every year the State Bureau of Environmental Protection and local departments of environmental protection make use of the commemorative days such as “Global Environment Day”, “Earth Day”, “International Biodiversity Day”, etc. , and the State Bureau of Forestry and local forestry departments make use of “Bird Week”, “Wild Animal Protection Month”, “Arbor Day”, etc.

Some newspapers and magazines in China usually release information on biodiversity conservation and sustainable use of montane ecosystems. These include *Acta Montane Sinica*, *Journal of Natural Resources*, *Journal of Geology*, *Journal of Ecology*, *China Green Times*, *China Environment Newspaper*, *People Daily*, etc. For example, *China Environment Newspaper* is the pioneer of education on biodiversity conservation. Nearly every issue of the newspaper contains the column and contents of biodiversity conservation, including the biodiversity conservation and sustainable use of montane ecosystems.

Some formal publications in China introduce the basic and professional knowledge of biodiversity conservation. For example, in 1999, China Forestry Press published *Comprehensive Development Practices of Mountainous Regions*, *For the Sake of Nature*, *Rare Endangered Wild Animals*, *Chinese Birds and Atlas of Key State-protected Wild Animals*. In 1999, Weather Press published “Green Cradle Series” (6 books).

All kinds of Media such as TV, Broadcast, etc often interview and report on the representative experiences and practices on protection and sustainable use of biological resources in montane ecosystems. For example, CCTV screened and displayed *Hope in Mountainous Regions*—7 special series of reports on the integrated development of mountainous regions focusing on the practices and effects of the development of mountainous regions.

Since 1997, plenty of official and non-official green websites on environment and biodiversity conservation has emerged, including China Environmental Protection, China Nature, China Mountainous Regions, China Green, etc. They have become significant media to popularize and disseminate knowledge on ecology and environmental

protection in the new age. Some websites, such as China Mountainous Regions, regularly release information on the biodiversity conservation and sustainable use of Chinese mountainous regions.

(2) Experience exchange and technique generalization

Some administrative departments in Chinese government regularly hold public education meetings on forestry, agriculture and environmental protection to promote the cognition level and management level of managers on the montane ecosystems and sustainable use of the resources. For example, National Mountainous Region Comprehensive Development Office holds an experience exchange meeting on comprehensive development of mountainous regions every year to summarize successful experiences on demonstration projects in mountainous regions and to find out ideas, mechanisms and models of the exploitation of mountainous regions. Some provinces, cities and counties also hold experience exchange meetings, forums and workshops in different regions to promote the resources protection and demonstration projects in local mountainous regions.

Some departments of scientific research, manufacture and technology generalization in China often set up all kinds of training courses to popularize practical technology of sustainable use of resources. Some regions also established complete scientific and technological information websites to transmit scientific and technological information.

Further explanation for Issue 12:

Since the CBD was in operation, China has cooperated with Germany, Holland, Japan, Australia, etc. in technology of biodiversity conservation and sustainable use of mountainous regions.

The cooperation programs between China and Germany mainly include:

- Afforestation Programme in Western Shaanxi Province: It started in September 1993 and ended in December 1999. Its objectives are to improve ecosystems in western Shaanxi and to train forestry managers with high quality. The programme had completed 23,000 ha. afforestation, constructed 110 km long road and set up 8 training centers at provincial and county levels .
- Forestry technology cooperation programme of “Supervision and Management Network of Three-North Protection Forest System Project”: It started on December 10, 1999. Its objectives are to seek for principles and approaches of Supervision and Management Network of Three-North Protection Forest System Project and lay the

foundations of scientifically managing Three-North protection forests. The programme accelerated and expanded information exchanges on Three-North Project and trends of dynamic supervision project, assisted administrative departments at all levels to prepare the implementation plans, and played a great role in scientifically predicting the future development of the program.

- China and Germany Cooperation Project of Ningxia Ecological Protection Forest: The project lies at the east foot of Helan Mount. Ecological forestry technology has been adopted, including regulate the structure of tree species, create mixed forests and enhance the resistance of the forest belt. From the implementation of the project in 1996 to 1999, it had completed 3800ha. artificial forest, 30000 ha. forests grown by sealing the mountain. Generalization center in 3 forestry technology training centers has set up and put in operation.
- China and Germany Afforestation Cooperation Project: The project is the second largest ecological forest project with the introduction of foreign capital to develop forestry in Chongqing City. It was implemented in January 1999 in Fuling Region, Fengdu County, Shizhu County and Zhong County. The city and counties established special offices in charge of training, participating in planning and preparing technological regulations such as *Supervision Guideline* and *Afforestation Technology Guideline*. It has completed 256.5 ha. seedling garden, 164 ha. forest land, 136 ha. Afforestation, 806.9 ha. forests grown by sealing the mountain. It goes on wheels.
- China and Germany Finance Cooperation Project of Ecological Protection Forest in Keerqin Desertified Land in Inner Mongolia: Its objectives are to build up stable artificial ecosystem and green vegetation by enlarging and sustainably dealing with the forest resources, to form integrated Keerqin Sandlot ecological protection forest system, and to meet the purpose of controlling desertification and improving ecosystem. The project increased local forest cover by 0.9%. The reserves of ground water increased by 1014m³. Soil and water loss reduces 750,000 ton every year. 400,000 ha. cropland or pasture have been protected. It also directly improves the ecosystem in the surrounding.

The cooperation programs between China and Holland mainly include:

Forest Protection and Community Development Project: It started in May 1998 to protect tropical and subtropical forest resources and biodiversity in Yunnan province, especially in Simao, Baoshan, Nujiang and Dehong. At present, its objectives are to improve the sustainable function of protected forests, to promote the comprehensive management level in nature reserves and the 350,000 ha forest nearby, to reduce the pressure of

population to nature reserves and the surrounding forests, and to lessen the frequency and risks of insect pest and forest fire in Simao. Under the common efforts of China and Holland, some achievements have been gained. The project has established 21 demonstration villages, prepared *Community Environment Action Plan*, and held environmental education workshop. The construction and management capabilities of nature reserves have highly enhanced through the supervision and training activities.

The cooperation programs between China and Japan mainly include:

Programme of Ningxia Forest Protection Research Plan: It completed the scheduled projects such as Ningxia Forest Pest and Disease Control and Supervision System. Some achievements on biological control, forest breeding and artificial raising of long-horned beetle have been accomplished. The programme continuation contract has been successfully signed and the continuation plan has been implemented.

The cooperation programs between China and Australia mainly include:

Technology Support Training Programme of Ecosystem Restoration in Yellow River and the Upper Reaches of Yangtze River in Qinghai Province: It includes introducing technology of seedling grown in factory and technological facilities and introducing the restoration and protection technology of grass vegetation.

Further explanation for Issue 14:

China considers montane ecosystem when implementing agricultural biodiversity and forest biodiversity plans.

The following priority plans in agricultural biodiversity special work plan are relevant to montane ecosystem.

- (1) Comprehensively protect and restore all kinds of agricultural ecosystems (including montane ecosystems), generalize technologies of ecological agriculture and organic agriculture;
- (2) Give priority to protecting rare, endangered, endemic species and biological species with economic or potentially economic values, comprehensively protecting existing wildlife species in agricultural ecosystem, and strengthening the in-situ protection of all kinds of wild close sibs.
- (3) Establish some new agricultural nature reserves, and strengthen the construction and management of nature reserves;
- (4) Establish ecological banks and renewal reproduction base of germ plasm

resources in 7 Chinese ecological regions;

- (5) Strengthen capability build-up of agricultural biodiversity supervision system;
- (6) Strengthen international cooperation in agricultural biodiversity, introduce experts and technology, and solve the capital shortage in China.
- (7) Enhance public education and improve the awareness of conserving agricultural biodiversity.

The special work plans of forest biodiversity puts forward basic objectives of China forest biodiversity conservation and sustainable use, that is, to increase forest cover, to develop forest resources, to maintain and improve ecosystem, to gradually reduce the exploitation of natural forests, to protect forest and biodiversity, to develop artificial forests, especially productive forests to substitute for the consumption of natural forest resources. To achieve these objectives, the following plans are worked out:

- Strictly conserve natural forest resources, completely stop the exploitation of nature forests at the upper reaches of Yangtze River and at the middle and upper reaches of Yellow River, and sharply reduce the timber production of key national forests in Northeastern China and Inner Mongolia. The focus of timber production should be turned from natural forests to artificial forests.
- Implement key construction project of protection forests in Three-North and at the middle and lower reaches of Yangtze River, develop large-scale projects of returning farmland to forest or grassland, implement project of returning farmland to forest and grassland on some sloping fields at a gradient of over 25⁰, and implement compensation system for forest ecological benefit.
- Develop wildlife protection project and nature reserve construction project. Protect wildlife species important to biodiversity, identify wildlife species important to biodiversity and those species needing protection actions, establish raising and reproduction base of rare endangered wild animals, safari parks, preserves, rescue base of rare endangered wild animals, etc., take measures to protect rare endangered species, and conserve biodiversity.
- Develop a biodiversity information and supervision system, develop uniform information standards and supervision approaches, and develop or improve departmental information and supervision networks.
- Regulate and improve forestry policies which go against the protection and management of forest resources, further the reforms focusing on classification dealing, improve the role of science and education in developing forestry, accelerate the legislation concerning forestry, and realize skip development of forestry.

Further explanation for Issue 15:

China is one of the rapidest countries in tourism development and has become one of the top 10 tourism countries. Tourism plays a more and more significant role in China social and economic development. In 2001, the income of Chinese tourism is 499.5 billion RMB, 5.2% of the GDP in that year. Montane tourism plays a significant role in Chinese tourism and is one of the industries with the fastest development. China has strengthened and improved the legislation, planning, management and market expanding of the montane tourism.

1. Further the development and improvement of laws on montane tourism and management system

Early in 1985, the State Council released *Provisional Regulation on the Management of Scenic Sites*. In August 1995, the State Bureau of Environmental Protection together with the State Bureau of Tourism, the Ministry of Construction, the Ministry of Forestry, and the State Cultural Relics Bureau released *Notification on Strengthening Environmental Protection of Tourism*. In July 2002, the State Bureau of Forestry released *Notification on Strengthening the Protection and Management of Scenic Site Resources in Forestry*. Now China is preparing *Management Measures of Eco-tourism in Nature Reserves*. These regulations and notifications adhere to the principle of “strict protection, uniform planning, reasonable exploitation and sustainable use” and define the combination optimization of tourism resources, the management system of tourism, comprehensive planning, environmental capacity control, supervision, environmental education, right of management and beneficial right of tourism resources operators. The objectives are to realize the sustainable use of tourism resources and to put the montane tourism on the track of management according to legislations.

2. Further the development and improvement of tourism plans in nature reserves and scenic sites.

Most provinces, autonomous regions and municipalities directly under the Central Government in China have analyzed existing problems and developed sustainable tourism plans, according to the requirements of tourism to sustainable development and the characteristics of local tourism resources. Most nature reserves and some scenic sites also developed local tourism development plans. For example, Sichuan Province designed Sichuan tourism as a destination of Chinese natural Eco-tourism and cultural tourism. It made a qualitative analysis of tourism resources in the whole province and gave 4 tourism regions priorities of development. It also made a feasibility evaluation of

land use planning of the 6 trial projects in Chengdu Giant Panda Breeding and Research Base, Jiuzhaigou World Natural Heritage Region, Hailuopao Glacier Park, Mount Emei World Natural and Cultural Heritage Region, Dinosaur Park in Zigong City and Dayi Liushi Manor. Specific development plans and functional layout have been worked out.

3. Strengthen the protection of ecosystem in tourism and environmental management of all kinds of tourism regions

With the rapid development of Chinese tourism, the protection of ecosystem in tourism has become a very important matter in sustainable development of tourism. Therefore, China has taken varied measures to strengthen the environmental management of tourism. All regulations and statutes on tourism management in China specifically stipulate that when new tourism regions and new scenic sites or tourism facilities within tourism regions are established, the impact on environment should be evaluated. The establishment of industrial facilities and programs that would lead to pollution is prohibited in tourism regions.

On June 20-21, 2002, the State Bureau of Environmental Protection and the State Bureau of Tourism held a meeting of national environmental protection in tourism in Dujiangyan City, Sichuan Province. It brought forward new requirements and tasks on the improvement of laws, regulations, policies and systems on ecosystem protection in tourism, on the enhancement of supervision of ecosystem protection in tourism regions, on the establishment of benign interaction between tourism and environment, and on the public education on ecosystem protection in tourism.

Some provinces, cities and scenic sites in China have strengthened ecosystem protection in tourism regions from various aspects. For instance, Henan province actively promoted the control of water, air, trash and noise pollutions in scenic sites, reasonably controlled the scale of tourism, and strictly managed the environment during implementing tourism facilities construction projects.

4. Transform and improve management systems

To form the model of “uniform management, polynary development, joint-stock cooperation, benefit sharing and risk sharing”, the tourism management systems should be transformed and improved to define a tourism benefit sharing mechanism. For example, Wuyishan Nature Reserve encourage national and international corporations or individuals to take forms of joint venture, cooperation and share of stock to invest in the

protection and exploitation of scenic resources to realize stock ownership system of rights of use and management of tourism resources. To protect the right of management and beneficial right of forest scenic resources operators, the benefits resulting from the exploitation of tourism resources are shared according to share of stock. At the same time, tax exemption or abatement policy is used. The tourism income is largely or completely used to develop tourism.

5. Expand tourism market

Combine the international market with national market. Not only pay much attention to developing international tourism, but also promote national tourism. Give prominence to ethnical characteristics and create peculiar tourism in many forms, such as folk tourism, delicious food tourism, religion tourism, reminiscence tourism, etc.

Further explanation for Issue 16:

Chinese government has recognized the significance of traditional knowledge and innovation to the biodiversity conservation and sustainable use of montane ecosystem and taken measures to protect and promote the continuation and expansion of these traditional knowledge and innovation.

(1) Policies relevant to the protection of traditional knowledge

All Chinese policies and laws highly respect and protect the benefits of minority nationalities and local communities. For instance, *China 21st Agenda* clarifies the significance of the protection of traditional knowledge and encourages the minority nationalities, women and local communities to participate in biodiversity conservation. Yunnan province has diverse minority nationalities and traditional cultures. *Regulations on the Protection of Yunnan Folk Traditional Cultures of All Nationalities* released by the standing committee of People's Congress in Yunnan province stipulates that those traditional living ways good for biodiversity conservation and sustainable use should be conserved and that the compilation, continuation and expansion of traditional knowledge should be promoted.

(2) The compilation and protection of traditional knowledge

Biological resources in many Chinese famous scenic spots and holy mountains of Taoism and Buddhism are well-conserved. Traditional knowledge is preserved and developed by developing rules or conventions of the local communities. For example,

400 holy mountains in Xishuangbanna are protected by the Dai Nationality.

Holy scenic spots are one kind of particular natural and cultural sights. The Kunming Institute of Botany, CAS has investigated and researched on the origins, types, distributions in Yunnan and ecological value of holy scenic spots and advocated to make the best use of religious cultures in order to bring more holy scenic spots in the modern protection systems. Cooperated with international comprehensive developing center of mountain regions, the institute has investigated and researched on the Yi Nationality's traditional culture and biodiversity in the central Zixi Mountainous Region on Yunnan Plateau through methods of ethical biology and cultural anthropology. It also advocates enhancing the collection and compilation of traditional culture and the public education. With the sponsor of Fort Fund, the institute focuses on the traditional slash-and-burn cultivation in Hani and Jinuo nationality communities in Xishuangbanna mountainous region. The results indicate that many traditional management ways emphasize the protection of forests so that they are important to biodiversity.

(3) Minority nationalities and local communities participate in biodiversity conservation

To solve the problems in the construction of nature reserves, most nature reserves are seeking after approaches and means to coordinate the developments of both nature reserves and communities under the support of national concerned departments and international organizations. They adopt community-participated management and encourage local communities and women to participate in the management of nature reserves. For instance, the Institute of Zoology, CAS has taken various forms of public education in local communities in Mount Gaoligong in Yunnan and actively organized and absorbed local community to participate in the management of local resources. The training and public education have improved the management capability and knowledge of the local community, promoted the participation of biodiversity conservation in forest, and diversify the community income to improve local living level. The sustainable use of natural resources is used to conserve the ecosystems and species resources important to the montane ecosystems and biodiversity.

Further explanation for Issue 17:

The schemes on the protection of China's natural and cultural heritages in mountainous regions include:

1. Legislation system on the protection of China's natural and cultural heritages in

mountainous regions

Chinese laws and regulations which involved in the protection of natural and cultural heritages include *Constitution*, *Law on the Protection of Cultural Relics*, *Law on Land Management*, *Forest Law*, *Law on Environmental Protection*, *Regulations on Nature Reserves*, *Regulations on the Management of Scenic Sites*, *Management Regulations on the Protection of Geological Relics*, etc. These laws and regulations bring forward policies and measures of the protection and management of natural and cultural heritages from the aspects of management systems, the protection of scenic sites and heritages, tourism planning, environmental management, remedy of cultural relics, etc.

Some regions and natural and cultural heritage sites in China have developed relevant laws and management systems. For example, the 27th standing committee meeting of the ninth People's Congress in Sichuan Province approved *Sichuan Regulations on the Protection of the World Heritages*. In September 2000, the 18th standing committee meeting of the ninth People's Congress in Sichuan Province approved *Hunan Regulations on the Protection of the Wulingyuan World Heritages*. Suzhou City developed *Regulations on the Management of Suzhou Gardens*. A law on specially protecting the Great Wall—*Great Wall Law* will be published after the discussion and certification of Beijing City Council.

2. Some natural and cultural heritage sites in China have developed corresponding protection plans and management measures according to the management principle of “strict protection, reasonable exploitation, scientific planning and beautiful ecosystem”.

Jiuzhaigou Scenic Site has relatively complete management systems and developed General Plan of Jiuzhaigou Nature Reserves, General Plan of Jiuzhaigou Scenic Sites, Jiuzhaigou Scientific Research Programs Plan, Prevention and Rescue Plans of Forest Fire. Its management of natural heritages and species resources within the scenic sites is scientific and strict. All hotels within scenic sites are closed by Jiuzhaigou Administration. It takes the lead in implementing “limited tourism” management in the tourism industry with the limit of 12000 visitors every day. It also developed the first large-scale automatic air monitoring station in Chinese scenic sites. The ISO14000 environmental management system and ISO9000 quality management system are fully pursued to meet the international, standardized and scientific requirements.

Adhering to the guideline of “protect and rescue first”, the County Council and the county government in Yi County, Anhui Province have developed some regulations on

strengthening the management of cultural relics, protecting ancient communities and strengthening the management of temples. In 2002, *Management Measures on the Protection of Xidi and Hongcun World Cultural Heritages in Yi County* was passed during the 4th meeting of the 13th county people's congress. Administration Committee of the Protection of Xidi and Hongcun World Cultural Heritages in Yi County was established to supervise cultural heritages and coordinate the heritage protection and management of law executive departments. To protect Xidi and Hongcun Ancient Villages and maintain the ancient architectures, the county government has invested 4 million RMB to rush to repair Xidi ancient dwellings, temples and torii. Some ancient architectures have been repaired, such as Zouma Lou, Jinai Tang, Zhuimu Tang, Hua Ting, etc., as well as Chengzhi Tang, Lexian Tang, Sanli Tang in Hongcun.

3. Other action plans on the protection of natural and cultural heritages

In February 2001, Beijing Cultural Development Fund together with notable experts prepared *Proposal of the Special Fund of China Cultural Heritage Protection* to popularize and disseminate knowledge of cultural heritages in *National World Cultural Heritage Namelist*, to train the staff in the field of cultural relics protection, and to develop protection and research program of cultural relics, including montane cultural heritages such as the Great Wall. Beijing Bureau of Cultural Relics and International Great Wall Association developed *Management Plan of Great Wall Cultural Relic* to publicize and implement the existing regulation of "No Building within the 200m surrounding the Great Wall".

In answer to the *World Geological Park Plan* prepared by UNESCO, the Ministry of Land Resources together with the Ministry of Finance, the State Bureau of Environmental Protection, the State Bureau of Tourism, etc started to implement *Geological Heritage Protection Action Plan* on August 25, 2000. The national geological heritage (geological park) protection leading team and the national geological heritage (geological park) examination committee have been set up. A series of documentations, such as *Choosing Approaches of National Geological Park*, have been developed to improve the significance of national geological park to geological heritage protection, tourism, public education and developing local economy. Some world natural heritages such as Zhangjiajie (Forest with Gritstone Apex) and Lushan (Glacier in the Quaternary Period) have been given special attention.

Further explanation for Issue 18:

China is a mountainous country. The area of mountainous regions accounts for more than

half of the territory. Among the 9.6 million sq.km territory, the area of mountainous regions is 74.8%. The protected mountainous regions in China mainly include montane nature reserve, forest parks and scenic sites.

By the end of 2001, 1551 nature reserves of various kinds have been established in China. The total area is 1,298,900 sq.km.. The area of montane nature reserves is about 808,400 sq.km.. 1078 forest parks of various kinds have been established. The total area is 98,300 sq.km. (2000). There are over 600 scenic sites and the total area is 96,000 sq.km.(2000). The sum is $808,400 + 98,300 + 96,000 \approx 1,002,700$ (not including Hongkong, Macau and Taiwan)

$$1,002,700 / 7,180,000 \approx 0.1396$$

The protected mountainous regions are 13.96% of the total Chinese mountainous regions.

Further explanation for Issue 19:

China pays much attention to the development of mountainous regions. It promotes publicizing activities of International Mountainous Region Year and International Eco-tourism Year through workshops and expositions and organizes a series of eco-tourism activities.

To welcome International Mountainous Region Year and promote the development of mountainous regions, China held Workshop on Research and Development of Chinese Mountainous Regions. All representatives agree to strengthen the research on mountainous regions, scientifically and reasonably exploit the montane resources, promote measures of sustainable development of society, economy and culture in mountainous regions. These measures include developing national development plan of mountainous regions and scientific research plan of mountainous regions and emphasizing the development of mountainous regions (including development of resources, environmental protection, disaster control, infrastructure construction, personnel training and attraction, etc) to ensure that enough capital and personnel resources are invested in the development and construction of mountainous regions. Strengthen the education in mountainous regions and improve population quality to promote the development of society, economy and culture of mountainous regions.

Tibet Academy of Agriculture and Husbandry and International Comprehensive Development Center of Mountainous Regions held International Workshop on Animal

Husbandry on Highland Grassland in Lasa City, Tibet on May 4, 2002. Over 130 specialists from 18 provinces discussed the development problem of the animal husbandry on highland grassland, which promoted the determination of development direction and means of animal husbandry on highland grassland.

The Third Workshop on Disaster Control and Environmental Protection of Mountainous Regions in Mainland and Taiwan sponsored by Chengdu Institute of Mountainous Regions, CAS began on July 29, 2002. The theme is Environmental Protection and Disaster Control. This meeting provided scientific consultation for disaster control, ecological construction and the development of mountainous regions, especially Western Development Programme. It is also an active response to the 2002 UN International Mountainous Regions Year.

In order to publicize mountainous regions, promote sustainable development of mountainous regions and celebrate International Mountainous Regions Year, China held an exposition of ecological production in Mountainous regions in 2002. The items on display include diverse pure natural food, organic food, rare Chinese medical herbs, natural mineral water, and ecological production from mountainous regions. The exposition met the need of market diversity through high quality, pure nature, no pollution and diversity and aroused the common understanding of the significance of mountainous regions.

2002 is the International Eco-tourism Year. To meet the requirement of global eco-tourism, many activities are initiated in many places in China to celebrate the International Tourism Year. Various eco-tourism activities are initiated in some scenic sites, such as planting trees, collecting trash, etc. During many eco-tourism holidays, tourists help nature reserves to protect endangered animal and plant species and ecosystems.

On August 27-31, 2002, the First Annual Workshop on Eco-tourism Development in Western China was held in beautiful Xingyi City, Guizhou by Chinese Eco-tourism Society and Xingyi city government. More than 160 specialists and enterprisers from all over the country and representatives from Hongkong and Taiwan attended the meeting.