China National Biodiversity Conservation Strategy and Action Plan

(2011-2030)

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Foreword

"Biological diversity" means the variability among living organisms from all sources, including, *inter alia*, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems. Biodiversity provides the foundation for human survival and sustainable social and economic development; and safeguards ecological safety and food security.

The Convention on Biological Diversity (" the CBD" hereafter) provides that each Party should develop and update in a timely manner its national strategy, plan or program. The National Environmental Protection Agency (currently upgraded to the Ministry of Environmental Protection), together with relevant departments, issued in June 1994 China Biodiversity Conservation Action Plan ("the Action Plan" hereafter) following the approval of the Environment Protection Committee of the State Council. By now, seven goals adopted in the Action Plan have been mostly achieved and most of twenty-six priority actions identified therein have been implemented. The implementation of the Action Plan has strongly promoted biodiversity conservation in China.

In the past few years, the international community has been paying more and more attention to biodiversity issues, particularly safety of GMOs, invasive alien species, access to and benefit-sharing from use of genetic resources. At present, the overall trend of biodiversity decline in China has not been effectively controlled. Over-exploitation of natural resources, project construction and climate change have significantly affected the survival of species and the sustainable use of biological resources. The serious loss of biological resources is yet to be reversed.

To implement related provisions of the CBD, further strengthen biodiversity conservation in China and effectively cope with new problems and challenges facing biodiversity conservation in China, the Ministry of Environmental Protection (MEP), jointly with more than 20 ministries and departments, has updated China National Biodiversity Conservation Strategy and Action Plan (2011-2030) in which strategic goals, strategic tasks and priority areas and actions are identified for biodiversity conservation in China for the next two decades.

I. Current Status of Biodiversity in China

(1) Overview

China is one of the 12 mega-biodiversity countries in the world. The main ecosystems in China include territorial ecosystems, such as forest, shrub, meadow, steppe, desert, wetland; and major marine ecosystems such as the Yellow Sea, East China Sea, South China Sea and Kuroshio Basin. China has known 34,984 higher plants, ranking the third in the world. China also has 6,445 vertebrate animal species, accounting for 13.7% of the total in the world. The fungi species known in China are more than 10,000, making up 14% of the total in the world.

China has rich genetic resources and a country of origin of many important agricultural crops such as rice and soybean, as well as a key center of origin of wild and cultivated fruit trees. According to incomplete statistics, there are 1,339 cultivated crops and 1,930 wild relatives in China and the fruit tree species rank top in the world. China has 567 species of domesticated animals, being one of the countries with the most diverse domesticated animals in the world.

(2) Threats to biodiversity in China

Functions of some ecosystems are being constantly degraded. The monopoly of forest plantations in China has led to low pest resistance of forests. 90% of grasslands have been degraded by varying degrees. Inland fresh water ecosystems are threatened and some important wetlands have been degraded. Marine and coastal species and their habitats are being constantly lost and marine fishery resources have declined.

The status of endangered species is being exacerbated. It is estimated that 15%to 20% of wild higher plants in China are endangered. Among them, over 40% of gymnosperms and orchids are endangered. The status of endangered wild animals continues to worsen, with 233 vertebrate animal species facing extinction, the number of about 44% of wild animals declining, as well as the populations of non-protected wild animals decreasing significantly.

Erosion and loss of genetic resources is continuing. The habitats of some wild crop relatives have been destroyed and lost. 60%to 70% of the original distribution sites of wild rice have disappeared or shrunk. Some rare and endemic germplasm resources

of crops, trees, flowers, livestock, poultry and fish suffer serious loss. Some local traditional and rare varieties have been also lost.

II. Achievements, Problems and Challenges of Biodiversity Conservation

(1) Implementation of China Biodiversity Conservation Action Plan (adopted in 1994)

Since 1994, seven goals identified in the Action Plan have been mostly achieved and the implementation of the Action Plan has played an active role in promoting biodiversity conservation in China. However, the effectiveness of implementation of some actions and projects in the Action Plan has yet to be improved for various reasons such as insufficient funding, lack of a monitoring system and low level of public awareness of biodiversity conservation.

(2) Achievements of biodiversity conservation

The legal system of biodiversity conservation has been initially established. China has issued a series of laws concerning biodiversity conservation, including Wild Animal Protection Law, Forest Law, Grassland Law, Animal Husbandry Law, Seed Law and Law on the Quarantine of Import and Export of Animals and Plants. China has also issued a series of administrative regulations in this regard, including Regulation on Nature Reserves, Regulation on Protection of Wild Plants, Regulation on Biosafety Management of Agricultural Genetically Modified Organisms, Regulation on the Management of Trade in Endangered Wild Animals and Plants, and Regulation on the Protection of Wild Medicine Resources. Related sectoral departments and some provincial governments have also adopted corresponding rules, local regulations and codes of conduct.

A series of plans and programmes on biodiversity conservation have been implemented. Following the issuance of the Action Plan, the Government of China has issued in succession China Nature Reserves Program (1996-2010), China Master Plan for Ecological Conservation, China Program for Ecological Environment Conservation and China Program for Conservation and Use of Biological Resources (2006-2020). Related sectoral departments have also issued and implemented a series of plans and programmes for nature reserves and protection of wetlands, aquatic species and genetic resources of domesticated animals.

The mechanisms for biodiversity conservation have been gradually improved. China has established a Coordinating Group for the Implementation of CBD and an

Inter-ministerial Joint Meeting for Protection of Biological Resources. China has also established national clearing-house mechanisms for biodiversity and biosafety. The coordinating mechanisms for biodiversity conservation and implementation of the CBD and related agreements have been basically established at national level. Related departments have set up their own management bodies for biodiversity in accordance with their specific needs. Some provincial governments have also set up coordination mechanisms for biodiversity conservation.

The capacities of biodiversity identification, research and monitoring have been improved. Related departments have organized various species surveys at national or regional level in succession and have established related databases and published inventories of species such as Flora of China, Fauna of China, Spore Flora of China and China Red Data Book of endangered animals. Each related department has carried out research and monitoring on species in their own field and set up corresponding monitoring networks and systems.

Notable achievements have been made in *in-situ* conservation. By the end of 2008, 2,538 nature reserves had been established at various levels in China. The reserves cover 148,943,000 ha., accounting for 15.13% of China's total land area which is higher than the global average 12%. Among these reserves, there are 303 national reserves. A network of nature reserves has been initially set up which covers various types of ecosystems, with relatively reasonable locations and sound functions. 2,277 forest parks had been established including 709 national parks. The total area of forest parks covers 9,738,000 ha., accounting for 1.01% of China's total land area; 187 national scenic areas had been established and cover 8,416,000 ha., accounting for 0.88% of China's total land area; 100 pilot national wetland parks and 138 national geological parks had been established. The total protected areas of all types throughout the country cover about 17% of China's total land area. Moreover, China has established 17 national marine reserves and 113 national field sites and protected areas for conserving genetic resources of domesticated animals.

***Ex-situ* conservation has been further strengthened.** The *ex-situ* conservation of wild flora and fauna and *ex-situ* preservation of germplasm resources have moved forward rapidly. China has established over 240 zoos (animal exhibition areas) and 234 botanical gardens (tree gardens). By the end of 2008, China has established 2 national long-term banks and 25 medium-term banks for agricultural crop germplasm resources; China has also established 32 national gardens for germplasm resources, 1 national gene bank, 3 medium-term gene banks and 14 gardens for pasture germplasm resources , and 6 national gene banks for germplasm resources of

domesticated animals. 390,000 accessions of agricultural crops have been stored. Moreover, the establishment of germplasm banks of timbers, medicinal plants, aquatic species, microorganisms and wild animals and plants has taken shape.

Biological safety management has been strengthened. China has set up an Office of Biosafety Management and a system has been established to manage risks arising from genetically modified organisms in the field of agriculture and forestry. The prevention and control of invasive alien species has been further regulated by setting up a collaborating group for preventing and controlling invasive alien species as well as an inter-departmental committee for risk analysis of animal and plant quarantine. Related departments have also established special agencies for prevention and control of invasive alien species.

Progress has been made in international cooperation and exchange. China has been taking active actions in the implementation of the CBD and participating in relevant international negotiations and development of related rules. Also, China has been strengthening cooperation and exchange with related international organizations and NGOs, carrying out a series of cooperative projects and increasing exchange on biodiversity conservation policies and related technologies. Moreover, China has improved technical capacities of science and technology professionals and raised public awareness of biodiversity conservation through development and implementation of training, educational and awareness activities.

(3) Problems and challenges facing biodiversity conservation in China

Major problems in biodiversity conservation. The legal and policy system on biodiversity conservation is yet to be completed. Baseline data on biological resources is far from adequate, therefore work in identification and cataloguing of biodiversity is still quite heavy. The monitoring and warning system on biodiversity has not been set up. China also has such problems as insufficient investment in biodiversity, inadequate capacities of management, protection and fundamental scientific research, and insufficient capacities to cope with new problems facing biodiversity conservation. Moreover, the awareness of biodiversity conservation of the whole country or society is yet to be raised.

Pressures and challenges facing biodiversity conservation. The accelerated urbanization and industrialization brings threats to and increases pressures on the habitats of species and ecosystems. Overexploitation and disorderly development of biological resources aggravate the negative impacts on biodiversity. Environment pollution has great impacts on aquatic and river coastal biodiversity and habitats. The

release of invasive alien species and genetically modified organisms to the environment has increased pressures on biological security. The production of biological fuels has created new threats to biodiversity conservation. The impacts of climate change on biodiversity are yet to be evaluated.

III. The Biodiversity Conservation Strategy

(1) Guiding Ideology

The overall goal is to achieve the conservation and sustainable use of biodiversity and fair and equitable sharing of benefits arising from use of genetic resources, guided by the scientific development principles and the principle of coordination between socio-economic development and biodiversity conservation, as well as through developing or strengthening institutions and mechanisms for biodiversity conservation, strengthening capacities for ecosystem management and protecting biological and genetic resources, increasing public awareness and participation, and promoting ecologically friendly development and harmony between human beings and nature.

(2) Basic Principles

——**Conservation first.** Priority is given to biodiversity conservation while advancing social and economic development, and active measures will be taken to effectively protect important ecosystems, species and genetic resources and to ensure ecological security.

——**Sustainable use.** Predatory exploitation of biological resources should be prohibited and research, development and dissemination of technologies for sustainable use of biological resources should be enhanced so as to achieve the scientific, rational and orderly utilization of biological resources.

——**Public participation.** Communication and education on biodiversity conservation should be strengthened and local communities and the general public should be encouraged to participate more actively and widely in biodiversity conservation. Access to information and media supervision should be strengthened, and effective mechanisms should be established to allow the participation of the whole society in biodiversity conservation.

——**Benefit sharing.** A system should be established for access to and fair and equitable sharing of benefits from use of genetic resources and associated traditional knowledge.

(3) Strategic Goals

Short-term Goal

By 2015, China strives to control effectively the declining trend of biodiversity in key areas. Specifically, China will

- Complete baseline surveys and evaluations of biodiversity in 8 to 10 priority conservation areas and implement effective monitoring and control.
- Maintain the total area of territorial nature reserves at 15% or so of China's total land area with strengthened *in-situ* conservation to conserve 90% of the national key protected species and typical ecosystems.
- Implement *ex-situ* conservation rationally and effectively to protect over 80% of threatened species of very small wild populations which are insufficiently conserved *in-situ*.
- Establish a system of biodiversity monitoring, evaluation and warning, and set up a system to manage trade in biological resources as well as a system for access to and benefit sharing of genetic resources.

Mid-term Goal

By 2020, China strives to basically control biodiversity decline and loss. Specifically, China will

- Complete baseline surveys and evaluations of all the priority areas of biodiversity conservation and implement effective monitoring and control.
- Establish a network of nature reserves with reasonable coverage and sound functions, with the functions of national nature reserves maintained stable and effective for protection of major protected species.
- Further improve the system of biodiversity monitoring, evaluation and warning, the system to manage trade in biological resources and the system for access to and benefit sharing of genetic resources.

Long-term Goal

By 2030, biodiversity in China has been effectively protected. The number and area of nature reserves of all levels will have reached the required level and ecosystems, species and genetic diversity have been effectively protected. A complete policy and legal system on biodiversity conservation and a sound

mechanism of sustainable use of biological resources has been established. The public will participate voluntarily in biodiversity conservation.

(4) Strategic Tasks

1. **Further improve related policies, regulations and systems on biodiversity conservation**. China will

    - Study policies to promote environment-friendly business development in areas adjacent to nature reserves and explore incentive measures and policies to promote conservation and sustainable use of biological resources.
    - Study and develop regulations and systems for access to and benefit sharing of genetic resources, protection of traditional knowledge, biosafety management and prevention and control of invasive alien species.
    - Improve coordination mechanisms of biodiversity conservation and management of biological resources by fully playing the role of the Coordinating Group for Implementation of the CBD and the Inter-Ministerial Joint Meeting for the Protection of Biological Resources.

2. **Promote mainstreaming of biodiversity conservation into related planning processes.** China will

    - Mainstream biodiversity conservation into national economic and social development planning as well as relevant sectoral planning processes.
    - Promote formulation by local governments of local biodiversity conservation strategies and action plans.
    - Establish mechanisms of review and monitoring of implementation of related plans and programmes to ensure their effective implementation.

3. **Strengthen capacities for biodiversity conservation.** China will

    - Strengthen the infrastructure construction for biodiversity conservation.
    - Carry out baseline survey and inventory of biodiversity, and complete assessments of threatened status of higher plants, vertebrates and large fungus and issue lists of endangered species.
    - Strengthen research capacities of biodiversity conservation, improve disciplinary and major establishments in universities and research institutions and reinforce the training of professionals.

- Carry out innovation research on technologies and techniques for biodiversity conservation and utilization.
- Further reinforce capacities for biodiversity monitoring and upgrade levels of biodiversity management and warning.
- Strengthen capacities for inspection of imported and exported biological resources by developing relevant technical standards for inspection and providing inspection equipments and tools needed.

4. **Strengthen *in-situ* conservation of biodiversity and rationally carry out *ex-situ* conservation.** China will

    - Continue giving priority to *in-situ* conservation, supplemented by *ex-situ* conservation, with both mutually supportive, with a view to achieving a reasonable spatial structure of nature reserves by establishing more nature reserves in priority areas and strengthening biodiversity conservation outside reserves through undertaking such pilot demonstration projects.
    - Establish a system for assessing the management effectiveness of nature reserves and strengthen law enforcement and inspection to continuously improve the management effectiveness of nature reserves.
    - Study and develop incentives that promote linking biodiversity conservation with poverty alleviation and the participation of local governments and communities in the establishment and management of nature reserves.
    - Take measures combining *in-situ* and *ex-situ* conservation for species with small wild populations and weak abilities of survival and reproduction. For agricultural genetic resources China will focus on *ex-situ* conservation, and for domesticated animal genetic resources China will focus on *in-situ* conservation.
    - Strengthen the establishment of genetic resources banks.

5. **Promote sustainable development and use of biological resources.** China will

    - Combine biological technology development and promoting sustainable use of biological resources.
    - Strengthening exploration, classification, detection, screening and property assessment of biological resources for genetic discovery and selection.
    - Improve the application of related biological technology in such fields as agriculture, forestry, biological medicine and environmental protection.

- Encourage innovations and strengthen the protection of intellectual property rights.

6. **Improve benefit sharing of biological and genetic resources and associated traditional knowledge.** China will

    - Draw on advanced international experience in this regard and carry out pilot demonstration projects.
    - Strengthen studies on the evaluation of biodiversity and the rules for management of biological and genetic resources.
    - Rescue, protect and inherit related traditional knowledge by improving the protection system of traditional knowledge.
    - Explore the establishment of a system for access to and benefit sharing of biological and genetic resources and associated traditional knowledge, and coordinate the interests between the protectors, developers and users of biological and genetic resources and associated traditional knowledge to ensure that the interests of all stakeholders will be protected.

7. **Improve capacities to cope with new threats and challenges to biodiversity.** China will

    - Improve research on the invasion mechanism, diffusion path, control measures as well as means of use of invasive alien species.
    - Establish a system of monitoring, warning and risk management of invasive alien species.
    - Improve research on environmental release, risk assessment and environmental impact assessment of genetically modified organisms by improving related technical standards and regulations to ensure the safety of the environmental release of GMOs.
    - Improve research on technologies for biodiversity conservation to cope with climate change and explore related management measures to mitigate impacts.
    - Establish a monitoring and warning system of pathogenic and epidemic microorganisms and improve emergency response capabilities to protect the health of human beings and domesticated animals.

8. **Raise public awareness and strengthen international cooperation and exchange.** China will

- Carry out various communication and educational activities on biodiversity conservation to encourage public participation in biodiversity conservation and strengthen the school education of biodiversity by disseminating knowledge about biodiversity.
- Establish and improve a system of public monitoring and reporting on biodiversity conservation and mechanisms of public participation.
- Establish partnerships for biodiversity conservation and mobilize relevant stakeholders both home and abroad widely for participation in biodiversity conservation and fully play the roles of local non-profit organizations and charity organizations in common efforts to enhance biodiversity conservation and sustainable use.
- Reinforce the implementation of the CBD and actively participate in the development of related international rules.
- Further deepen international exchange and cooperation and introduce advanced technologies and experiences from other countries.

IV. Priority Areas of Biodiversity Conservation

Based on its natural and socio-economic conditions and the distribution of natural resources and key protected targets, China is divided into 8 eco-regions, namely,

- Hilly Plain Region of Northeast China,
- Desert Region of Inner Mongolia-Xinjiang Plateau,
- Loess Plateau Region and North China Plain,
- Alpine Region of Qinghai-Tibetan Plateau,
- Alpine Canyon Region of Southwest China,
- Hilly Regions of Central, South and West China,
- Hilly Plain Region of East and Central China, and
- Lower Hilly Region of South China.

35 priority areas of biodiversity conservation have been identified taking into full consideration various factors such as representativeness, endemism, special ecological functions of various ecosystem types, as well as the richness, level of rarity and endangerment, threats, regional representativeness, economic and scientific values of species, and data availability of species distribution. These priority areas include 32areas for conservation of terrestrial and inland freshwater biodiversity such as Da Xing'anling Mountain Area, Three Rivers Plain , Qilian Mountain Area and Qinling Mountain Area, and 3 areas for conservation of marine and coastal biodiversity,

namely, protected areas in the Yellow Sea, Bo Sea, East China Sea and South China Sea .

A. Priority areas of inland terrestrial and aquatic biodiversity conservation

1. The Hilly Plain Region of Northeast China

(1) Overview. The region includes the entire area of Liaoning, Jilin and Heilongjiang Provinces and part of Inner Mongolia Autonomous Region and covers an area of 1.24 million square kilometers. In this region there are 54 national nature reserves, covering an area of 5.671 million ha., 126 national forest parks, covering an area of 2.765 million ha., 16 national scenic spots, covering an area of 648,000 ha. and 14 national reserves of aquatic germplasm resources, covering an area of 49,000 ha. The total protected areas in this region cover 8.45% of the region's total land area. The priority areas of biodiversity conservation in this region include Daxing'anling Mountain Area, Xiaoxing'anling Mountain Area, Hulunbeir Area, Three Rivers Plain, Changbaishan Mountain Area and Songnen Plain.

(2) Conservation priorities. For biodiversity conservation in this region, China will

- Establish biodiversity corridors between nature reserves and transboundary reserves to protect big cats such as Amur tiger and Far East leopard.
- Develop plans for wetland conservation and establish transboundary wetland reserves to address issues of water shortage and pollution of wetlands.
- Focus on establishing marsh wetlands, migration and reproduction areas for rare and migratory birds and protected areas for rare fishes and cold-water fishes in Songnen and Three Rivers Plains, marine coastal regions, the coastal areas of Heilongjiang River and Ussuri River, the lower reaches of Tumen River and the coastal areas of Yalu River.
- In key state-owned forests, establish protected areas or forest parks of typical cold-temperate and temperate forests and of forest wetland ecosystems, as well as those for rare animals and plants such as Amur tiger, musk-deer, Korean pine, northeast Chinese yew and wild soybeans.

2. The Desert Region of Inner Mongolia-Xinjiang Plateau

(1) Overview: The region includes the entire area of Xinjiang Uygur Autonomous Region and part of Hebei, Shanxi, Shaanxi and Gansu Provinces, Inner Mongolia Autonomous Region and Ningxia Hui Autonomous Region. It covers an area of 2.69 million square kilometers. In this region there are 35 national nature reserves,

covering an area of 19.833 million ha., 40 national forest parks, covering an area of 1.122 million ha., 7 national scenic spots, covering an area of 683,000 ha. and 14 national reserves of aquatic germplasm resources, covering an area of 631000 ha. The total protected areas in this region cover 7.76% of the region's total land area. The priority areas of biodiversity conservation in this region include Altay Mountains Area, the Southwestern section of Tianshan-Jungar Basin, Tarim River Basin Area, Qilian Mountain Area, Kumtag Area, West Erdos-Heilan Mountain-Yinshan Mountain Area and Xilinguole Pasture Area.

(2) Conservation priorities: For biodiversity conservation in this region, China will

- Establish and integrate nature reserves to expand the network of nature areas, taking into consideration bio-geographical units such as mountain, watershed, desert and ecological functions.
- Strengthen protection of desert and grassland ungulates such as wild camels, wild ass and argali, as well as rare birds and their habitats such as bustards, demoiselle crane, black stork and relict gull.
- Improve the conservation of rare and endemic fishes and their habitats such as Xinjiang huso sturgeon.
- Reinforce protection of germplasm resources of wild fruit trees and husbandry grass such as Xinjiang wild apple and Xinjiang wild apricot.
- Provide more protection of some species unique in deserts such as wild haloxylon forest, popular diversifolia, tetraena, savin juniper and herba cistanches.
- Document and research on the traditional medical knowledge of minorities living in this region.

3. The Loess Plateau Region and North China Plain

(1) Overview: The region includes the entire area of Beijing, Tianjin and Shandong and part of Hebei, Shanxi, Jiangsu, Anhui, Henan, Shaanxi, Qinghai Provinces and Ningxia Hui Autonomous Region and covers an area of 950,000 square kilometers. In this region there are 35 national nature reserves, covering an area of 1.03 million ha., 123 national forest parks, covering an area of 1.2 million ha., 29 national scenic areas, covering an area of 740,000 ha., and 6 national reserves of aquatic germplasm resources, covering an area of 23,000 ha. The total protected areas in this region cover 3.03% of the region's total land area. The priority areas of biodiversity conservation in this region include Liupanshan-Ziwuling Mountain Area and Taihang Mountain Area.

(2) Conservation priorities: For biodiversity conservation in this region, China will

- Improve the ecosystem restoration in the region by establishing nature reserves primarily for conservation of secondary forests on the Loess Plateau Region, typical temperate ecosystems in Luliang Mountain Area and Yanshan-Taihang Mountains, and wetlands along the middle reaches of the Yellow River, coastal wetlands as well as the lakes and wetlands in the Central China Plain.
- Improve conservation of endemic pheasants including brown-eared pheasant, and of cranes, geese and ducks, stocks and their habitats.
- Establish biological corridors between nature reserves and restore degraded environment within priority areas.
- Improve the restoration and protection of the wetlands near metropolitan cities in this region.

4. The Alpine Region of Qinghai-Tibetan Plateau

(1) Overview: The region includes part of Sichuan, Tibet Autonomous Region, Qinghai and Xinjiang Uygur Autonomous Region and covers an area of 1.73 million square kilometers. In this region there are 11 national nature reserves, covering an area of 56.329 million ha., 12 national forest parks, covering an area of 1.363 million ha., 2 national scenic spots, covering an area of 990,000 ha. and 4 national reserves of aquatic germplasm resources, covering an area of 239,000 ha. The total protected areas in this region cover 33.06% of the region's total land area. The priority areas of biodiversity conservation in this region include Sanjiangyuan (sources of three rivers)-Qiangtang Area and the Southeast Himalaya Mountain Area.

(2) Conservation priorities: For biodiversity conservation in this region, China will

- Improve the conservation of native habitats and establish a rational network of nature reserves in accordance with mountain ranges and watersheds by building on the existing nature reserves.
- Improve the conservation of typical plateau ecosystems and wetland ecosystems such as river sources and plateau lakes as well as populations of rare species and their habitats such as Tibetan antelope, wild yark, Procapra przewalskii gazella, Alpine musk deer, Himalayan musk deer, black-necked crane, Gymnocypris przewalskii and Chinese Caterpillar Fungus.

5. The Alpine Canyon Region of Southwest China

(1) Overview: The region includes part of Sichuan, Yunnan and Tibet Autonomous Region and covers an area of 650,000 square kilometers. In this region, there are 19 national nature reserves, covering an area of 3.388 million ha., 29 national forest parks, covering an area of 831,000 ha., 12 national scenic spots, covering an area of 2.171 million ha. The total protected areas in this region cover 7.80% of the region's total land area. The priority areas of biodiversity conservation in this region include the Southern section of Hengduanshan Mountain Area and the Northern section of Minshan-Hengduanshan Mountain Area.

(2) Conservation priorities: For biodiversity conservation in this region, China will

- Improve the integration of nature reserves with the eastern part of Himalaya Mountains and the northern and southern sections of Hengduanshan Mountain as the core areas and major conservation efforts targeting on the alpine and canyon ecosystems and primary forests.
- Improve conservation of the populations and their habitats of the national key protected wild plants and animals including giant panda, golden monkey, Bengal tiger, Indo-China tiger, Tawny musk deer, monal pheasants, northeast Chinese yew, orchid, matsutake and Chinese caterpillar fungus.
- Improve conservation of genetic resources of rare wild flowers and crops and their wild relatives.
- Improve the documentation and protection of traditional medicines and traditional medical knowledge of minorities living in this region.

6. The Hilly Regions of Central, South and West China

(1) Overview: The region includes the entire area of Guizhou Province and part of Henan, Hubei, Hunan, Chongqing, Sichuan, Yunnan, Shaanxi and Gansu and covers an area of 910,000 square kilometers. In this region, there are 45 national nature reserves, covering an area of 2.187 million ha., 119 national forest parks, covering an area of 773,000 ha., 36 national scenic spots, covering an area of 886,000 ha., and 16 national reserves of aquatic germplasm resources, covering an area of40,000 ha. The total protected areas in this region cover 3.71% of the region's total land area. The priority areas of biodiversity conservation in this region include Qinling Mountain Area, Wuling Mountain Area, Daba Mountain Area and the Limestone Area of West Guangxi and South Guizhou.

(2) Conservation priorities: For biodiversity conservation, China will

- Focus on conservation of unique natural habitats including subtropical evergreen broad-leaved forests and forests in Karst areas.
- Establish biodiversity corridors between reserves and improve the conservation of the national key protected wild animals and plants and their habitats such as giant panda, crested ibis, endemic pheasants, wild sika deer, black-necked crane, forest musk deer, cycas, alsophila and dove tree.
- Improve conservation of rare and endemic fishes and their habitats along the upper reaches of the Yangtse River.
- Improve collection and documentation of traditional knowledge related to biodiversity conservation.

7. The Hilly Plain Region of East and Central China

(1) Overview: The region includes the entire area of Shanghai, Zhejiang and Jiangxi and part of Jiangsu, Anhui, Fujian, Henan, Hubei, Hunan, Guangdong and Guangxi and covers an area of 1.09 million square kilometers. In this region, there are 70 national nature reserves, covering an area of 1.845 million ha., 226 national forest parks, covering an area of 1.489 million ha., 71 national scenic spots, covering an area of 1.755 million ha. and 48 national reserves of aquatic germplasm resources, covering an area of 225,000 ha. The total protected areas in this region cover 2.77% of the region's total land area. The priority areas of biodiversity conservation in this region include Huangshan-Huaiyushan Mountain Area, Dabieshan Mountain Area, Wuyishan Mountain Area, Nanling Mountain Area, Dongting Lake Area and Poyang Lake Area.

(2) Conservation priorities: For biodiversity conservation in this region, China will

- Establish nature reserves, protective plots and sites to conserve remaining key protected plants and establish groups of nature reserves along the middle and lower reaches of the Yangtse River.
- Strengthen the conservation of the evergreen broad-leaved forests in densely populated areas and of ancient rare wild plants and animals that still exist in a few areas.
- Establish nature reserves in the Yangtse River Basin and major lake areas for conservation of aquatic species and fishery resources.
- Improve the conservation of rare and endangered species such as Chinese sturgeon and dolphins, and of river and marine coastal wetlands and wintering habitats of red-crowned cranes and Siberian white cranes and potential habitats of South China Tiger.

8. The Lower Hilly Region of South China

(1) Overview: The region includes the entire area of Hainan and part of Fujian, Guangdong, Guangxi and Yunnan and covers an area of 340,000 square kilometers. In this region, there are 34 national nature reserves, covering an area of 920,000 ha., 34 national forest parks, covering an area of 195,000 ha., 14 national scenic spots, covering an area of 543,000 ha. and 2 national reserves of aquatic germplasm resources, covering an area of 511 ha. The total protected areas in this region cover 2.91% of the region's total land area. The priority areas of biodiversity conservation in this region include the Central and South Hainan Island Area, Xishuangbanna Area and the Mountain Area of Southwest Guangxi.

(2) Conservation priorities: For biodiversity conservation, China will

- Improve the conservation of ecosystems such as tropical rainforests and tropical monsoon forests, south lower subtropical monsoon evergreen broad-leaved forests and coastal mangrove forests.
- Improve the conservation of the national key protected wild animals such as endemic primates, Asian elephant, Hainan Eld's deer, wild ox and oriental small-clawed otter, as well as rare tropical plants.
- Improve conservation of crops and their wild relatives such as wild rice, wild tea trees and wild lychee.
- Document related traditional knowledge in the minorities-inhabited areas.

B. Priority areas of marine and coastal biodiversity conservation

1. Overview

China is rich in marine resources. The marine coastal wetlands are important bird habitats and grounds of reproduction, feeding and overwintering for marine species. By now, China has established 170 marine reserves of all types including 32 national marine nature reserves and over110 local marine nature reserves. China also has established over 40 special marine reserves including 17 national reserves, with the total areas accounting for about 1.2% of China's total marine area.

2. Priority areas and conservation priorities

(1) **The Yellow Sea and Bohai Sea Protected Region.** The priority areas of this region include

- Main estuaries and adjacent sea areas in Liaoning Province,
- Coastal wetlands of Lian Mountain in Yingkou and Tuan Mountain in Gaizhou,
- Marine areas in Liaodong Bay of Panjin, Chrysanthemum Island of Xingcheng, Pikou of Pulandian,
- Big and Small Pat Ka Shan Island near Jinzhou,
- Tombolo systems at Shilin on Changxing Island and Fantuozi Island of Jinzhou Bay,
- Black stone reefs, Hei Island of Jinzhou and Qingdui Bay of Zhuanghe in Dalian,
- Tanghai and Huanghua coastal wetlands of Heibei,
- Wetlands of Hangu and Tanggu and Dagang salt marsh wetlands in Tianjin,
- Hangu littoral wetland ecosystem and coastal wetlands of Zhanhua, Diaokou Bay，Jiaozhou Bay, Lingshan Bay, Wuleidao Bay Jinghai Bay, Rushan Bay, Jinshan Port of Yantai, Penglai-Longkou in Shandong Province,
- Main estuaries and adjacent sea areas of Shandong Province,
- Laizhou Bay of Weifang, Taozi Bay of Yantai, Sanggou Bay of Rongcheng, Diaolongzui Sand Barrier and Sanshan Island of Laizhou in Shandong,
- Large offshore sea grass bed distribution areas at the northern section of the Yellow Sea,
- Offshore coastal wetlands at the abandoned estuary of the Yellow River Delta and Guanhe estuary in Jiangsu Province,
- Continental coastal wetlands at the radial submarine sand ridges and the artificial coastal wetlands at the south radial submarine sand ridges, outer sand ridges wetlands in north Jiangsu,
- Cold water mass waters in the central part of the Yellow Sea.

(2) The East China Sea and Taiwan Strait Protected Region. The priority areas of this region include

- North coastal wetland, Qingcaosha and Hengsha shoal area at Hangzhou Bay of Fengxian, Shanghai,
- Coastal wetlands at South bank of Hangzhou Bay, Wenzhou Bay and Oujiang Estuary Delta,
- Yushan Islands, Pishan Islands, Dongtou Islands, Tongpan Island, Beiji Islands and adjacent sea areas,

- Coastal wetlands at Dachen, Xiangshan Port, Sanmen Bay in Zhejiang Province, Sansha Bay, Luoyuan Bay, Xinghua Bay, Meizhou Bay, Quanzhou Bay of Fujian Province,
- Marine areas of Dongshan Bay, Min River Estuary and Xinglin Bay,
- Marine biodiversity corridors at Dongshan-Nan'ao,
- Great marine ecosystems of Kuroshio area.

(3) South China Sea Protected Region. The priority areas of this region include

- Habitats for marine species such as King crab of Chaozhou and Shantou, Japanese lancelet of Yangjiang, river dolphin of Maoming,
- Mangrove forest ecosystem in Shanwei and Huizhou,
- Sea grass bed in Yangjiang and Zhanjiang,
- Coral and coral reef ecosystem in Shenzhen and Zhuhai,
- Zhongshan coastal wetlands,
- Island ecosystems in Zhuhai,
- Marine flow convergence areas at Zhenhai Bay of Jiangmen, offshore Maoming, littoral zones in Shantou, Qianzhan at Huilai and also Nansha Tantou and Shanwei in Guangzhou,
- Tortoise habitats in Huidong Port, the Indo-Pacific hump-backed dolphin habitats in Zhujiang Estuary in Guangdong Province,
- Coral reefs at Weizhou Island,
- Habitats for Indo-Pacific hump-backed dolphin at Maowei , Dafeng estuary and at Sanniang Bay of Qinzhou,
- Mangrove forests at Dong Bay of Fangchenggang in Guangxi province,
- Coral reefs and sea grass bed at Wenchang and Qionghai,
- Soft coral, Gorgonian and coral reefs at Wanning, Wuzhizhou, Shuangfanshi, Dongluo, Xigu, Haiwei at Changjiang and Dachan Island at Zhanzhou,
- Yingge sea salt wetland and the black-faced spoonbill in Hainan Province, as well as coral reefs near Xisha Islands, Zhongsha Islands and Nansha Islands.

V. Priority Areas and Actions of Biodiversity Conservation

Ten priority areas and thirty priority actions have been identified in accordance with the above strategic goals and strategic tasks.

Priority Area 1: To improve the policy and legal system of biodiversity conservation and sustainable use

Action 1 Develop policies to enhance biodiversity conservation and sustainable use

- Establish, improve and enhance pricing, taxation, credit and loan, trade, land use and government procurement policies related to biodiversity conservation and sustainable use, and give preferential treatment to those projects for biodiversity conservation and sustainable use in terms of price, credit and loan and taxation.
- Improve the ecological compensation policies and expand their coverage and increase investments.
- Develop incentive policies to encourage reuse of biological resources and provide policy support for development of technologies producing alternatives of biological resources.

Action 2 Improve the legal system of biodiversity conservation and sustainable use

- Fully review and examine the provisions related to biodiversity conservation in existing laws and regulations and adjust those where there are conflicts and inconsistencies between these laws and regulations to improve the legal system and their mutual consistency.
- Study and develop laws and regulations on nature reserve management, wetland preservation, genetic resources management and assessment of impacts on biodiversity, and also study and revise the Forest Law, Regulation on Protection of Wild Plants and Regulation on Urban Landscape.
- Reinforce legislations on invasive alien species and biosafety, study and develop laws and regulations on biosafety management and invasive alien species, and study and revise the Regulation on Biosafety Management of Agricultural Genetically Modified Organisms.
- Improve national and local-level enforcement systems of biodiversity-related laws and regulations.

Action 3 Establish and enhance bodies for biodiversity conservation and management and improve the inter-agency coordination mechanism

- Establish and enhance biodiversity management bodies of related departments and coordinating mechanisms for biodiversity of local governments, and strengthen the capacities of local conservation and management bodies.
- Evaluate the effectiveness of existing mechanisms such as the Coordinating Group for Implementation of the CBD and the Inter-Ministerial Joint Meeting for the Protection of Biological Resources, with a view to strengthening their coordination and decision-making capabilities.

- Improve communications and coordination of management bodies of national and local levels.
- Establish inter-departmental coordinated mechanisms to combat violation of biodiversity conservation related laws and regulations.

Priority Area 2: Incorporate biodiversity conservation into sectoral and regional planning to promote sustainable use

Action 4 Incorporate biodiversity conservation into relevant sectoral and regional planning and programmes

- Develop sectoral strategies and action plans for biodiversity conservation in the field of forestry, agriculture, construction, water conservancy, oceanic administration and management of traditional Chinese medicine.
- Integrate biodiversity considerations into sectoral planning and programmes of related departments as of science and technology, education, commerce, land resources, water conservancy, energy, tourism, transportation, communications and poverty alleviation.
- Develop provincial biodiversity conservation strategies and action plans by all provincial governments.
- Develop strategy and action plan of watershed biodiversity conservation.
- Establish review and supervision mechanisms to improve the effectiveness of implementation of relevant plans and programmes.

Action 5 Ensure sustainable use of biodiversity

- Undertake pilot assessments of impacts on biodiversity and of the effectiveness of biodiversity conservation measures for those large-scale construction projects already completed.

- Establish more ecologically friendly demonstration areas such as ecologically friendly provinces, cities, counties, towns and villages, and more national “garden cities" (county capitals, towns) and “ecologically friendly garden cities”.
- Disseminate concepts and codes of conduct favorable to biodiversity conservation in the sectors of agriculture, forestry, water conservancy, industry and energy, transportation, tourism and trade, etc.
- Promote consumption patterns and food culture favorable to biodiversity conservation.

Action 6 Reduce impacts of environment pollution on biodiversity

- Continue to implement water pollution control projects in three rivers (Huai, Hai, and Liao) and three lakes (Tai, Chaohu, and Dianchi), Three Gorges Reservoir area, the upper reaches of the Yangtse River, the upper and middle reaches of the Yellow River, Songhua River, Zhujiang River, and sources of water and canals of Water Transfer Project from South to North China.
- Continue to improve the comprehensive control of sulphur dioxide in the sectors of power generation, and manufacturing of steel and iron, nonferrous metals, chemicals and building materials, etc. and treatment of urban smog, powder, fine particles and vehicle emissions .
- Continue to establish facilities for centralized disposal of medical and hazardous wastes, disposal of municipal wastes and wastes of middle to low radioactivity and comprehensive treatment of chromium residue piled and contaminated soil.
- Speed up waste water treatment and waste disposal in villages and towns, by mitigating pollution from rural waste water, household waste, agricultural run-offs, and domesticated animal farming, and treating and restoring soil and land contaminated in the past by mining and other industrial enterprises.

Priority Area 3: Carry out identification, evaluation and monitoring of biodiversity

Action 7 Carry out baseline surveys on biological resources and ecosystems

- Carry out comprehensive baseline surveys in the priority areas of biodiversity conservation.
- Carry out surveys on key species and in key areas.
- Establish baseline database of species surveyed at both national and local levels.
- Regularly organize nationwide surveys on wild flora and fauna and establish archives and catalogues of these resources.
- Carry out baseline and diversity surveys on aquatic species of rivers and wetlands.
- Establish national biodiversity information management system.

Action 8 Survey and catalogue genetic resources and related traditional knowledge

- Survey, collect and classify local crops, domesticated animals, wild edible and medical plants and animals and fungi with focus on remote and minority-

inhabited regions and store the accessions in the national germplasm resource bank.

- Focus on the survey of germplasm resources of major timbers, wild flowers, medicinal species and aquatic species, and collect, store, catalogue these resources and establish databases.
- Survey traditional knowledge, innovation and practices related to genetic resources in the minority-inhabited areas and establish databases and undertake studies and demonstration projects concerning benefit sharing.

Action 9 Undertake biodiversity monitoring and warning

- Establish a standard system for monitoring ecosystems and species and improve the standardization of biodiversity monitoring.
- Strengthen the research, development and manufacturing of modern equipments and facilities for monitoring of ecosystems and various taxonomic groups.
- Make full use of existing capacity of biodiversity monitoring and establish a network of biodiversity monitoring so as to undertake systematic monitoring and achieve data sharing.
- Develop biodiversity forecasting and warning models, establish a technical system of warning and emergency response, and achieve long-term and dynamic monitoring.

Action 10 Facilitate and coordinate establishment of information system concerning genetic resources

- Classify genetic resource information of all kinds to establish and improve databases and information systems of genetic resources.
- Develop an inter-departmental plan for coordinated management of biodiversity data and establish an information sharing system of genetic resources.

Action 11 Undertake comprehensive biodiversity evaluation

- Develop a system for evaluating ecosystem services and functions and their economic values, and undertake pilot assessments of the economic values of biodiversity.
- Evaluate on the distribution structure, change trend, conservation status and existing problems of major ecosystems and taxonomic groups in China and issue comprehensive evaluation reports on a regular basis.

- Establish and improve mechanisms for assessments of endangered species and issue national Red Lists of endangered species on a regular basis.

Priority Area 4: To strengthen *in-situ* biodiversity conservation

Action 12 Integrate the implementation and improvement of national nature reserve planning.

- Adopt a holistic approach to planning of nature reserves and establish information management system.
- Strengthen the establishment of nature reserves in the priority areas of biodiversity conservation and optimize spatial structure to improve the connectivity between nature reserves and the overall conservation capacity.
- Study and establish transboundary reserves in the areas of Ussuri River, Dalai Laike and Urat of Inner Mongolia, Altay, Sharciniand Khongjirap Pass of Xinjiang, Himalaya of Tibet and the lower reaches of Tumen River, etc.

Action 13 Improve conservation in priority areas of biodiversity conservation.

- Establish marsh wetlands and migrating and breeding nature reserves for rare migratory birds in the Hilly Plain Region of Northeast China, especially in the Songnen and Three Rivers Plains, coastal areas of Heilongjiang River and Ussuri River, the lower reaches of Tumen River and the coastal areas of Yalu River.
- Strengthen the conservation in the grasslands and deserts of Inner Mongolia-Xinjiang Plateau with focus on the genetic diversity of wild fruits in Xinjiang and species endemic in deserts such as Tetraena, Savin Juniper.
- Strengthen the conservation in the Loess Plateau Region of North China Plain with focus on water conservation forests and reducing soil erosions of the Loess Plateau by careful planning and establishing various ecological function zones.
- Strengthen the conservation in the Alpine Region of Qinghai-Tibetan Plateau with focus on alpine and desert species such as Chinese caterpillar fungus, Tibetan antelope, Tibetan gazella, snow leopard, blue sheep, Argali and black-necked crane, etc.
- Strengthen the conservation in the Alpine Canyon Region of Southwest China with focus on ecosystems and key species such as giant panda, takin, matsutake and Chinese caterpillar fungus.

- Strengthen the conservation in the Hilly Region of western Central China with focus on the flora and fauna in the limestone areas in west Guangxi and south Guizhou.
- Strengthen the conservation in the Hilly Plain Region of East and Central China with focus on the lake wetlands along the middle and lower reaches of the Yangtse River, ancient rare plants still retained in some parts of the region as well as rare and endangered fish species.
- Strengthen the conservation in the Lower Hilly Plain Region of East and Central China with focus on the endemic primates of Xishuangbanna in south Yunnan and the hilly areas in central and south Hainan, and wild animals such as Asian elephant, Hainan Eld's deer, wild ox and rare tropical plants.
- Strengthen the conservation of the coastal wetlands of Bohai Sea and the tidal flat wetlands of the Yellow Sea.
- Develop related plans, policies, regulations and measures for priority areas of biodiversity conservation.
- Strengthen supervision and establish demonstration areas of biodiversity restoration and conservation .

Action 14 Standardize nature reserve establishment and improve the effectiveness of management of nature reserves.

- Develop master and management plans for nature reserves and assess the effectiveness of their implementation regularly.
- Improve management facilities of primarily national nature reserves, and strengthen monitoring and standardize nature reserve establishment and management.
- Explore community co-management models of various types of nature reserves and undertake and promote pilot demonstration projects in community co-management.
- Provide training to managers to improve their management and professional capacities.
- Expand cooperation with nature reserves in other countries and strengthen experience exchange and cooperation between reserves within China.
- Follow strictly the approval procedures for establishing nature reserves and strengthen management of nature reserves.

Action 15 Improve biodiversity conservation outside nature reserves

- Continue to push forward key ecological projects including China National Natural Forest Protection, Returning of Farmland to Forest and Grassland, Beijing-Tianjin Sand Source Control, Forest Shelterbelt Program, and Wildlife Conservation Program.
- Take both engineering and ecological measures to restore damaged or degraded fish spawning sites in rivers and ecological connection of fishes in rivers and lakes.
- Continue to implement fishing ban areas, closed fishing seasons, fishing quota and licensing systems.
- Strengthen the conservation and restoration of typical coastal and marine ecosystems of mangrove forest, coral reefs and sea grass bed and improve the ecological environment of off-shore and coastal areas .
- Strengthen development of *in-situ* protective plots or sites for wild plants of critically small population outside nature reserves and undertake biodiversity conservation activities of various types by involving local communities.
- Continue to implement the project of returning ranches to grassland to improve conservation of pasture ecosystems by enclosing and banning grazing in ranches for recovery of grasslands, rotation of enclosure and grazing and limiting activities such as overgrazing.
- Establish reserves for fishery genetic resources in major breeding and growth areas of fish species of high economic and genetic values.
- Improve management and conservation of ecologically and tourism vulnerable areas such as green land, rivers/lakes and natural wetlands included in urban plans.

Action 16 Improve establishment of farms and reserves for conservation of genetic resources of domesticated animals

- Improve existing farms and reserves for conservation of genetic resources of domesticated animals.
- Establish more farms and reserves for conservation of genetic resources of domesticated animals and further strengthen conservation of good-quality genetic resources of domesticated animals.

- Further improve the conservation system of genetic resources of domesticated animals and assess the effectiveness of conservation of genetic resources of domesticated animals .

Priority Area 5: Carry out *ex-situ* conservation based on science

Action 17 Rationally develop ex-situ species conservation system based on science

- Establish and improve a national system of botanical gardens, develop an overall national plan for introduction and preservation in botanical gardens and improve scientific research level of *ex-situ* conservation of botanical gardens.
- Improve the Wildlife Germplasm Resources Preserving Base of Southwest China and establish the Germplasm Resources Bank of Central and East China.
- Expand and strengthen the wild animal breeding system and make scientific evaluation on zoos and wild animal breeding centers so as to rationally plan the establishment of zoos and wild animal breeding centers, and regulate various wild animal domestication and breeding farms and commercial activities.
- Protect intellectual property rights and equally share benefits from utilization of biological and genetic resources.

Action 18 Establish and improve systems for preserving biological and genetic resources

- Strengthen the upgrading and maintenance of equipments and facilities of national medium-term and long-term crop germplasm repositories and the national duplication crop germplasm repository, and improve the preserving and utilization center and the germplasm repository for domesticated animals and pasture germplasm resources, as well as 26 medium-term crop germplasm repositories, 32 germplasm gardens, and auxiliary equipments of 2 tube-seedling nurseries and field breeding nurseries.
- Establish a national woody plant germplasm repository and corresponding germplasm preserving gardens, and gradually improve the preserving system of woody plant germplasm resources.
- Establish a national wild flower germplasm and medical plant repository to collect and preserve excellent wild flowering and medicinal plant germplasm resources.

- Continue to strengthen the national genetic resources repository for domesticated animals and establish a cell bank and a gene bank of genetic resources of domesticated animals.
- Establish a gene bank for aquatic germplasm resources and accelerate the establishment of a national center for introduction and breeding, germplasm repository, the original seed farm, fine seed farm and the genetic inspection and testing center at national level.
- Strengthen the development of a national gene bank of wild flora and fauna, and improve the collection, preservation, research and development of genetic materials of wild flora and fauna.
- Strengthen capacity building on the collection, conservation and preservation of microorganisms and establish banking and sharing system for microorganisms .
- Improve the management rules and measures on preservation of various genetic resources and regulate access to and use of genetic resources.
- Improve ex-situ conservation of rare and endangered species within the urban planning zones and establish files of ancient trees in cities and define areas of conservation.
- Make full use of various multilateral and bilateral mechanisms to actively undertake international exchange on genetic resource preservation.

Action 19 Improve reintroduction of artificial populations and restoration of wild populations

- Continue to implement rescue projects to save rare and endangered wild animals and plants such as tiger, Tibetan antelope, Procapra przewalskii gazelle, Yangtse alligator, gibbon, cycas and orchid plants.
- Develop technologies of breeding, restoration and conservation of endangered species, and undertake artificial breeding of rare and endangered plant species, especially of orchid plants.
- Undertake pilot demonstration in reintroduction of artificial populations, and select 3-5 species of mammals, reptiles, fish, birds and critically endangered wild plants for reintroduction.

Priority Area 6: Promote rational utilization and benefit sharing of biological genetic resource and related traditional knowledge

Action 20 Strengthen development and utilization of and innovative research on genetic resources

- Establish a system of assessing production character, quality character, stress resistance and morphology of domesticated animal genetic resources and screen major genes critical to the quantity and quality of livestock products such as meat, egg, milk, fur for separation, cloning, sequencing and location.
- Undertake research on technologies for development and use of domesticated animal genetic resources, improve cultivation of new varieties of livestock and poultry and multiple crossbreeding system, and establish innovation technology system of domesticated animal genetic resources.
- Identify and assess the regeneration and reproduction character of agricultural crop germplasm resources, and separate and clone excellent function genes of crop germplasm resources.
- Identify properties and screen genes of timber germplasm resources systematically, identify core germplasm of important timbers and select excellent gene for tree genetic improvement.
- Strengthen technology development and application of utilizing medicinal and ornamental plants and undertake the identification, classification and screening of germplasm genes to cultivate new varieties.
- Develop technology to detect or screen the characters of microorganisms and gather, separate, reserve, evaluate and utilize microbial cultures and strains in a planned way.
- Implement biological industry special program to encourage research, innovation and intellectual property rights protection on biological engineering and to make breakthroughs on key technologies and key products.
- Undertake research on special function genes of wild flora and fauna.

Action 21 Establish rules and mechanisms of conservation, access to and benefit sharing of genetic resources and related traditional knowledge

- Develop policies of and regulations on access to and benefit sharing of genetic resources and related traditional knowledge.
- Improve regulations on disclosure of origin of genetic resources in patent applications and establish procedures of mutually agreed terms and prior informed consent for access to and benefit sharing of genetic resources and related traditional knowledge, and ensure that inspection of the import & export of biological resources will be operating effectively.
- Establish administration mechanisms, administrative agencies and technical supporting systems for access to and benefit sharing of genetic resources and improve related information exchange mechanisms.

Action 22 Establish a system of examination and inspection of import and export of genetic resources

- Establish a system for examination and inspection of import & export of genetic resources , coordinate domestic management and import & export law enforcement, and develop effective penalties and strengthen supervision on import & export.
- Develop an administrative list of import and export of genetic resources and strengthen professional training for customs and quarantine and inspection staff to improve the accuracy of examination and inspection.
- Undertake research on rapid inspection and identification methods and equip advanced examination and inspection facilities at major ports of passengers and international mail processing centers as well as establish and complete related laboratories.
- Raise the awareness of departing passengers especially scientific and research professionals and foreign service personnel of protection of genetic resources through various educational programs.

Priority Area 7: Strengthen biosafety management of invasive alien species and genetically modified organisms

Action 23 Improve capacity of early warning, emergency response and monitoring of invasive alien species

- Develop techniques for and establish a system for environment risk assessment of invasive alien species.
- Establish and improve port quarantine facilities and isolated quarantine nurseries and bases for introduced species, isolated experiment sites and quarantine centers in accordance with various needs of regions and sectoral departments.
- Improve techniques and methods such as invasive alien species rapid inspection methods and establish invasive alien species monitoring and warning system, and undertake long-term monitoring.
- Track emerging, potentially harmful alien species and develop emergency response plan, and develop sustainable control and elimination technologies and organize elimination of invasive alien species that have caused serious damage.
- Strengthen monitoring and warning system of harmful pathogens and animal epidemic sources and diseases, and prevent epidemics from the sources and control the spreading.
- Strengthen capacity building of import & export management of microorganisms used in the environmental protection and implement standardized management and long-term tracking on microorganisms used in aqua-culturing.

Action 24 Establish and complete technical systems and platforms for biosafety assessment, inspection and monitoring of transgenic organisms

- Focus on developing assessment techniques of environmental risk analysis of transgenic organisms, and safety of GMOs for food and feed.
- Develop transgenic organism sampling and high-throughput detection technology, and undertake research on and develop related criteria, inspection equipments, facilities and products and research on the full traceability technology.
- Develop techniques and standards of transgenic organism release, production and application, import & export safety monitoring and risk management, and technology of risk warning and safe disposal.
- Establish centers for biosafety assessment of GMOs and gradually establish an inspection and monitoring system of biosafety of transgenic organisms and implement real-time detection and tracking .

- Actively participate in international negotiation in fields related to biosafety.

Priority Area 8: To increase ability to cope with climate change

Action 25 Develop an action plan for biodiversity conservation and climate change

- Develop an action plan of biodiversity conservation responding to climate change, and assess impacts of climate change on key ecosystems, species, genetic resources and related traditional knowledge and propose related measures.
- Develop technologies for monitoring impacts of climate change on biodiversity and establish monitoring network to monitor major targets.
- Establish species migration corridors and reduce negative impacts of climate change on biodiversity, and cultivate excellent new varieties with improved ability to cope with climate change.

Action 26 Evaluate impacts of biological fuel production on biodiversity

- Assess impacts of energy crops plantation on biodiversity.
- Undertake research on and establish environmental safety management system of biological fuel production.

Priority Area 9: Facilitate scientific research and talent cultivation in the field of biodiversity conservation

Action 27 Strengthen scientific research in the field of biodiversity conservation

- Strengthen research on new theories, new technologies and new methods of biodiversity conservation and expand support to basic disciplines such as taxonomy.
- Strengthen infrastructure development of scientific research on biodiversity and rationally equip and utilize scientific research resources and facilities to enhance the research and development capacities of laboratories.
- Disseminate mature research results and technologies to promote sharing of scientific results.

Action 28 Strengthen professional cultivation in the field of biodiversity conservation

- Take measures to attract excellent science and technology talents into research on biodiversity conservation.
- Take the advantage of professional education in universities and institutes to improve professional education and talents cultivation of biodiversity, and strengthen training to improve the technical and decision-making capacities of professionals and managers and to foster innovative science and technology talents.

Priority Area 10: Establish public participatory mechanisms and partnerships on biodiversity conservation

Action 29 Establish mechanisms of public participation

- Improve public participatory mechanisms for biodiversity conservation and establish a system that allows public participation of various forms such as reporting, hearing and discussion.
- Make full use of nature reserves, zoos, botanical gardens, forest parks, specimen museums and nature museums to promote knowledge of biodiversity conservation and raise the public awareness of conservation.
- Establish mechanisms of public and media supervision on implementation of related policies.

Action 30 Promote the establishment of biodiversity conservation partnerships

- Establish inter-departmental collaborative partnerships on biodiversity conservation.
- Establish collaborative partnerships involving multilateral, bilateral organizations and international NGOs on biodiversity conservation.
- Establish biodiversity partnerships involving local governments, local communities and domestic NGOs.

VI. Supporting Measures for Implementation of NBSAP (2011-2030)

(1) Strengthening planning and guidance

Local governments are main implementation bodies responsible for biodiversity conservation within their jurisdictions and each one must establish coordinated mechanisms for biodiversity conservation, assign conservation tasks and implement responsibilities. At national level, China will improve the overall coordination

capacity of the Coordinating Group for Implementation of the CBD and the Inter-Ministerial Joint Meeting for the Protection of Biological Resources. Each related department will clearly define their responsibilities to improve coordination and information exchange in common efforts to conserve biodiversity. China will also improve the guidance to local governments on implementing biodiversity conservation tasks. China will establish a review mechanism of the implementation of the NBSAP and local BSAPs in which the Ministry of the Environmental Protection will work with related departments to supervise, inspect and review the implementation of the NBSAP and local BSAPs and submit regular reports to the State Council.

(2) Implementing supporting policies

Local governments and all related departments must focus on priority areas with consideration given to the natural environment characters, economic and social development and needs for biodiversity conservation in different regions and watersheds. They need to review and sort out existing policies and regulations on biodiversity conservation to improve existing policies and develop new policies and standards for biodiversity conservation suitable for different areas, watersheds, sectors and levels, which will contribute to a policy system of biodiversity conservation. China will use a combination of economic and legal means supplemented by necessary administrative measures to improve the implementation of each policy and regulation. China will encourage innovation on policies and regulations favorable to biodiversity conservation.

(3) Improving capacities of implementation

China will further improve capacities of biodiversity survey, evaluation, monitoring and warning as well as of management and protection of biodiversity-rich areas such as nature reserves of all levels, forest parks, scenic spots, natural heritages, key wetlands and aquatic germplasm resource reserves by improving team building, talents cultivation and law enforcement. Departments in the sectors of environmental protection, agriculture, forestry, commerce, housing and urban-rural development, water conservancy, land resources management, quality supervision, customs, industry and commerce, Chinese traditional medicine and oceanic administration, etc. will provide training on administrative supervision and law enforcement on biodiversity conservation , and intensify crackdown on crimes and illegal behaviour of damaging biodiversity.

(4) Increasing investments

China will expand funding channels and increase national and local investments in biodiversity and encourage the private sector, banks and international financial institutions to invest more in biodiversity conservation and develop a diversified funding mechanism. China will combine existing scattered funding on biodiversity conservation to improve efficiency. China will expand government financial support of all levels to capacity building, basic scientific research and ecological compensation on biodiversity conservation.

(5) Strengthening international exchange and cooperation

China will actively participate in biodiversity international negotiations and development of related rules. China will also strengthen research on emerging issues and dynamic analysis of related information and developments at international level so as to participate more actively in related international negotiations and activities and to safeguard national interests. China will improve transboundary cooperation on biodiversity conservation and actively participate in regional activities and improve bilateral and multilateral cooperation mechanisms by developing cooperation plans and through regular information exchange. China will concentrate on priority actions and programs of China biodiversity conservation focusing on technology cooperation and capacity building, and further expand areas of international cooperation, enrich content of cooperation and undertake cooperation activities at various levels.

Annex:

Biodiversity Conservation Priority Projects

Project 1: Develop incentive measures for biodiversity conservation and sustainable use

Content: The project (with duration of 5 years) will

- Study and develop incentive measures (policy, financing and technology, etc.) for biodiversity conservation and monitor and research on the implementation of ecological compensation policies.
- Carry out pilot demonstration projects to establish and evaluate rational operation models of incentive measures.
- Encourage stakeholders to take active part in biodiversity conservation and sustainable use.

Project 2: Develop guidelines for assessing impacts of large-scale projects on biodiversity

Content: The project (with duration of 6 years) will

- Establish an indicator system for assessing impacts on biodiversity of various types of large-scale projects.
- Select representative projects for pilot assessment and monitoring.
- Develop guidelines for assessment of impacts of large-scale projects on biodiversity.

Project 3: Revise and improve laws and regulations related to biodiversity conservation

Content: The project (with duration of 5 years) will

- Further improve national legal system of biodiversity conservation.
- Follow and study processes and developments under international biodiversity-related conventions and protocols including the CBD as well as strategies and policies adopted by other countries.
- Review and sort out biodiversity-related provisions in all of the existing, relevant domestic laws and regulations make proposals for revising and improving laws and regulations for biodiversity conservation as required by needs for biodiversity conservation.

Project 4: Establish a system for access to and benefit sharing of genetic resources

Content: The program (with duration of 10 years) will

- Undertake research on national rules on access to and benefit sharing of genetic resources and develop related regulations and administrative rules in this regard.
- Undertake pilot demonstration projects in this regard.

Project 5: Biodiversity conservation planning and demonstration project in land use

Content: The project (with duration of 10 years) will

- Take into full consideration needs for conservation of biodiversity and local species and ecosystems while formulating and implementing land use plans and in designing projects for land reclamation, restoration and development..
- Select 3-4 cities in 2 provinces for pilot demonstration projects.

Project 6: Planning and demonstration project of biodiversity conservation and use in urban-rural development

Content: The project (with duration of 5 years) will

- Incorporate biodiversity conservation and sustainable use of biological resources into urban-rural development.
- Study and formulate national urban biodiversity conservation plan based on adequate surveys.
- Incorporate elements of biodiversity conservation in urban green space planning and development.
- Select 3-5 medium-sized cities for pilot demonstration projects.
- Undertake research on how to incorporate conservation of local species and traditional knowledge into the New Rural Development Plan and select 10-15 villages for pilot demonstration projects.

Project 7: Demonstration projects on incorporating biodiversity conservation into economic and social development planning

Content: The project (with duration of 10 years) will

- Incorporate biodiversity conservation into national and local economic and social development planning.
- Based on comprehensive analysis of social and economic development trends and government work priorities, study and develop guidelines for incorporating biodiversity conservation into national and local economic and social development planning, and select 1-2 sectors and 1-2 provinces (regions) for pilot demonstration.

Project 8: Biodiversity survey and cataloguing in priority areas

Content: The project (with duration of 10 years) will

- Undertake baseline surveys in 32 priority areas for inland territorial and aquatic biodiversity conservation priority areas, including species and populations, ecosystem types, areas and conservation status.
- Assess the threatened status of biodiversity and propose plans for each priority area for designing nature reserve networks, the establishment of biodiversity monitoring networks and addressing impacts of climate change on biodiversity.

Project 9: Survey and cataloguing of aquatic biological resources for major rivers and lakes

Content: The project (with duration of 10 years) will

- Undertake survey and cataloguing of species, populations and habitats of aquatic species in rivers including the Yangtse River, Zhujiang River, the Yellow River, Heilongjiang River and lakes including Poyang Lake, Dongting Lake, Tai Lake, Qinghai Lake.
- Assess major aquatic biological resources, especially the threatened status of fishery resources and propose conservation measures.

Project 10: Survey and cataloguing of biological resources conserved ex-situ in city gardens

Content: The project (with duration of 3 years) will

- Undertake survey, classification and cataloguing of species conserved in major urban zoos, botanical gardens, arboretums, wildlife parks, aquariums and farms.
- Identify the ex-situ conservation status of biological resources in city gardens.

- Establish databases and dynamic monitoring system to improve conservation and sustainable use of major flora and fauna species in city gardens.

Project 11: Survey and cataloguing of traditional knowledge in minority-inhabited regions

Content: The project (with duration of 10 years) will

- Undertake survey and cataloguing of traditional crops, domesticated animals, ethnic medicine, traditional agricultural technology, traditional culture and custom in minority-inhabited regions, which embody practices of biodiversity conservation and sustainable use.
- Identify the status of conservation and inheritance of minority traditional knowledge.
- Establish a database for minority traditional knowledge.
- Improve the conservation, sustainable use and benefit sharing of minority traditional knowledge.

Project12: Establishment of biodiversity monitoring network and demonstration projects

Content: The project (with duration of 10 years) will

- Develop technologies for monitoring different ecosystems, species and genetic resources, and research on and develop a system of biodiversity monitoring standards.
- Make full use of existing monitoring capacities to propose rules for establishing a national biodiversity monitoring network.
- Undertake pilot demonstration projects.

Project 13: Establishment of a monitoring and warning system of agricultural wild plant conservation sites

Content: The project (with duration of 5 years) will

- Establish a monitoring and warning system of agricultural wild plant conservation sites.
- Using existing agricultural wild plant conservation sites, select 1-2 conservation sites for each species for systematic researches.

- Develop monitoring indicators, and establish an information system for monitoring and warning of conservation sites, and improve capacities of monitoring and warning.

Project 14: Demonstration projects on wetland conservation and restoration and establishment of a system for monitoring major wetlands

Content: The project (with duration of 8 years) will

- Select different types of wetlands in major regions for demonstration projects in conservation, restoration and sustainable use of wetlands.
- Develop models of wetland conservation, restoration and sustainable use.
- Establish monitoring facilities in 36 wetlands of international importance and equip with professionals
- Develop a national monitoring network of wetlands of international importance and provide on a regular basis dynamic monitoring data for understanding the dynamics of wetlands of international importance in China.

Project 15: Impact assessments of wild animal epidemic diseases and sources on biodiversity

Content: The project (with duration of 10 years) will

- Undertake baseline surveys nationwide of the epidemic animal diseases and find out the status, distribution and development trend.
- Establish a database on disease information and undertake further analysis on the relationship between the epidemic source & diseases distribution and biodiversity, and assess their impacts on biodiversity.

Project 16: Establishment of a national biodiversity information management system

Content: The project (with duration of 5 years) will

- Systemize existing domestic biodiversity databases and establish databases at various levels and of different types in accordance with ecosystems, species, genetic resources, in-situ conservation, ex-situ conservation, biological specimens, regulations and policies, etc.
- Study and propose mechanisms for biodiversity information sharing with a view to establishing a national biodiversity information management system.

Project 17: Demonstration projects in establishment and management of transboundary protected areas of wild animals

Content: The program (with duration of 8 years) will

- Undertake surveys and study tours on transboundary wild animal resources and habitats.
- Study and propose methods for establishing and managing transboundary protected areas.
- Explore and establish management and monitoring systems of transboundary protection.
- Undertake pilot demonstration projects.

Project 18: Conservation and ecological restoration of typical coastal and offshore marine ecosystems

Content: The project (with duration of 10 years) will

- Undertake baseline surveys on typical coastal and offshore marine ecosystems and find out their current status.
- Study and develop plans for marine ecological zoning and undertake demonstration projects in this regard.
- Establish marine protected areas in those coastal regions where mangrove forests, sea grass beds, coastal wetlands concentrate and important island ecosystems.

Project 19: Nature reserve establishment and management

Content: The project (with duration of 10 years) will

- Undertake nationwide surveys on the management status of nature reserves and establish a national remote-sense monitoring system for nature reserves and a management information system.
- Improve facilities of management and protection and strengthen capacities to enhance the management of nature reserves.

Project 20: Mangrove forest ecosystem restoration

Content: The project (with duration of 10 years) will

- Develop a national plan for mangrove forest conservation and artificial restoration and implement ecological restoration programs for seriously degraded mangrove forest ecosystems.
- Study and develop technologies for restoration and reconstruction of mangrove forest ecosystem to curb their degradation trend and to enhance their restoration.

Project 21: Demonstration projects in restoration and control of typical degraded ecosystems in coal mining zones

Content: The project (with duration of 5 years) will

- Identify the status of ecosystems degradation of coal mining areas in Northeast China and Shanxi Province.
- Study and propose techniques and models for the ecological restoration and control of coal mining areas.
- Select typical areas for pilot demonstration projects.
- Improve the ecological restoration of degraded ecosystems in coal mining areas.

Project 22: Nature reserve establishment and ecological restoration in typical desert ecosystems

Content: The project (with duration of 5 years) will

- Undertake surveys on biodiversity and ecological environment of typical desert ecosystems and find out their biodiversity status and spatial distribution.
- Develop a plan for establishing nature reserves and explore feasibilities of establishing nature reserves in accordance with standards and technical regulations for establishing protected areas.
- Implement ecological restoration projects.

Project 23: Demonstration projects in community development in areas adjacent to nature reserves

Content: The project (with duration of 5 years) will

- Study and establish partnerships and co-management mechanisms of nature reserve and their adjacent communities while ensuring conservation functions of nature reserves.

- Propose measures for enhancing economical and social development of communities in areas adjacent to nature reserves.
- Undertake pilot demonstration projects.

Project 24: Alternative livelihood demonstration in ecologically fragile areas in Northwest China

Content: The project (with duration of 5 years) will

- Select 3-4 critically ecologically fragile areas in Northwest China to change local production patterns and life styles in line with local conditions by promoting practical technologies such as household use of biogas, ecological farming, eco-tourism, rotational grazing of grasslands, artificial grassland construction, confinement rearing and farm breeding.
- Improve the living standards of local farmers and herdsmen while conserving biodiversity.

Project 25: Establishment of a system for ex-situ conservation of biological resources

Content: The project (with duration of 10 years) will

- Survey, systemize, collect and catalogue species conserved ex-situ of animals, plants, microorganisms and aquatic species (including marine species).
- Rationally plan the number, distribution and scale of ex-situ conservation facilities.
- Establish a database and dynamic monitoring system as well as a system for ex-situ conservation of biological resources.
- Fully conserve and use major species conserved ex-situ by improving the functions of gene banks.

Project 26: Agricultural germplasm resources collection and preservation

Content: The project (with duration of 10 years) will

- Undertake a rescue collection of wild and rare germplasm resources distributed in undeveloped, remote areas with harsh natural environment and poor road access, and of some germplasm resources urgently needed for seed cultivation.

- Achieve a national goal of preserving 410,000 accessions of crop germplasm resources by 2015 and 430,000 accessions by 2020.

Project 27: Rescue of rare and endangered wild animal species

Content: The project (with duration of 10 years) will

- Select as protection targets rare and endangered wild animals and habitats listed in the National List of Key Protected Wild Animals.
- Implement rescue projects of rare and endangered wild animals through in-situ conservation and artificial breeding as well as expanding their habitats to ensure their survival and reproduction.

Project 28: Rescue of rare and endangered wild plant species

Content: The project (with duration of 10 projects) will

- Select as protection targets wild plant species listed in the National List of Key Protected Wild Plants and China Plant Red Data Book.
- Also select as protection targets plant species of small population and their habitats identified by surveys in recent years.
- Implement rescue projects of rare and endangered wild plant species through in-situ conservation measures such as nature reserve establishment, and expanding their habitats to ensure survival and reproduction of these species.

Project 29: Identification, evaluation and development of genetic resources of domesticated animals

Content: The project (with duration of 10 years) will

- Establish an innovation system for use of genetic resources of domesticated animals and cultivate excellent genetic resources.
- Using endemic and rare domesticated animals preserved in national gene banks, undertake research on and develop a technical system of identification and evaluation of morphology, production character, quality character and stress resistance of genetic resources of key domesticated animals.
- Improve scientific research capacities and make major efforts in cultivation of new varieties of domesticated animals and multi crossbreeding system.

Project 30: Identification, evaluation, development and utilization of crop germplasm resources

Content: The project (with duration of 10 years) will

- Establish independent innovation system of crop germplasm resource and cultivate excellent crop germplasm resources and varieties.
- Develop a technical system of identification and evaluation of morphology, production character, quality character, stress resistance, etc of major germplasm resources.
- Identify the agronomy character, disease & pest resistance, stress resistance and quality of 50,000 accessions of crop germplasm resources and wild relatives preserved in germplasm repositories, germplasm nurseries and preservation sites to separate excellent genes for applications in crop seed cultivation and biological technology development.

Project 31: Introduction and domestication of rare and endangered wild medical species and development of alternatives

Content: The project (with duration of 10 years) will

- Undertake research on the introduction and domestication technology of wild medical species.
- Introduce and domesticate rare and endangered wild medical species such as Chinese caterpillar fungus.
- Use advanced biological technologies to identify and determine the medicinal components and mechanics of these species, with a view to develop alternatives.

Project 32: Develop a technical system and platform for inspection of biological resources

Content: The project (with duration of 5 years) will

- Undertake research on and develop technical standards and rules for inspection of biological resources.
- Establish national research centers for inspection of biological resources and key laboratories for port inspection.
- Develop a technical system of species inspection and establish a platform for information sharing for inspection of biological resources.

Project 33: Establishment of a system to oversee import & export of biological species resources

Content: The project (with duration of 5 years) will

- Undertake research on and propose measures on risk assessment, licensing and examination of import and export of biological resources.
- Undertake research on and define inspection targets and needs based on various lists of protected species and establish supervision system to oversee import and export of biological resources.

Project 34: Establishment of a system of monitoring and warning of invasive alien species and of emergency responses

Content: The project (with duration of 5 years) will

- Study how invasive alien species cause damage and propose effective monitoring and warning mechanisms and techniques for prevention and control and emergency response.
- Establish centers for monitoring and warning invasive alien species, centers of emergency response and field monitoring stations.
- Develop a national system of monitoring, warning and emergency response.

Project 35: Monitoring, prevention and control of impacts of pest resistance genetically modified cotton on biodiversity

Content: The project (with duration of 10 years) will

- Undertake research on the resistance mechanics of genetically modified cotton on target pests .
- Track and monitor impacts of pest resistance GM cotton on soil biological organisms and wild relatives of cotton.
- Develop a monitoring indicator system.
- Develop measures of prevention and control as well as technical measures to ensure the safe use of transgenic cotton.

Project 36: Monitoring and control of impacts of genetically modified trees on biodiversity

Content: The project (with duration of 10 years) will

- Study mechanics of drought-endurance, salt alkali resistance, pest resistance and disease resistance of transgenic trees.

- Track, monitor and evaluate impacts of transgenic trees on wildlife, microorganisms, soil and the environment.
- Undertake research on and develop an indicator system for monitoring impacts.
- Propose prevention and control measures to ensure the safe use of transgenic trees.

Project 37: Evaluation of impacts of climate change on biodiversity and development of response measures

Content: The project (with duration of 10 years) will

- Evaluate impacts of climate change on key ecosystems, species, agriculture and forest germplasm resources and biodiversity conservation priority areas and develop an indicator system for assessment.
- Undertake research on technologies for monitoring impacts of climate change on biodiversity and establish a corresponding monitoring system.
- Propose response measures and strategies.

Project 38: Communication and education for biodiversity conservation

Content: The project (with duration of 5 years) will

- Study and develop a communication strategy for biodiversity conservation and propose goals, tasks and actions for communication and education.
- Promote the CBD and its provisions and obligations of implementation, by using occasions such as International Biodiversity Day.
- Make use of media including TV, radio, internet and brochures, posters and training workshops to disseminate biodiversity knowledge and raise the public awareness of biodiversity conservation.

Project 39: Establishment of mechanisms for civil society participating in biodiversity conservation and demonstration projects

Content: The project (with duration of 10 years) will

- Establish mechanisms for NGOs and the public to participate in biodiversity conservation and improve their participatory capacities.
- Study and establish a union of biodiversity conservation involving relevant stakeholders and organize biodiversity conservation activities.