(Translation)

Disaster Reduction Report of the People's Republic of China

China is one of the few countries afflicted most severely by multiple kinds of natural disasters with a high frequency of occurrences, vast affected territories and grave losses. In particular, since the 1990s economic losses due to natural disasters have been on the rise, becoming a major factor affecting economic growth and social tranquility.

Attaching great importance to disaster reduction, the Chinese Government has taken it as an important guarantee for the overall objective of developing national economy and achieving sustainable development, and put forward that disaster reduction should serve the economic and social development and the relations between disaster reduction and economic development should be properly handled. China's capacity in disaster reduction should be fully enhanced by increasing the aggregate national strength, eradicating poverty, implementing the strategy of revitalizing the country through science, technology and education and fully displaying their role in reducing disasters. Taking into account the characteristics of natural disasters in China, the Chinese Government has summarized lessons and experience drawn in previous disaster reduction work, identified guiding principles as well as major targets, tasks and measures, mobilized all the positive factors, and reasonably allocated resources with a view to maximally reducing losses caused by natural disasters.

I. Overview of Natural Disasters

1.In China there are multiple types of natural disasters as listed below, which are highly frequent and seasonal.

The atmospheric and aquatic disasters. They mainly include floods, droughts, typhoons, storm-surges, big winds, hails, snowstorms, frosting, wave surges, tidal wave, sea ice and coastal erosion. Average areas affected by floods, which mainly occur in summer and autumn, stand at over 10 million hectares per year, among which more than 5 million hectares are classified as disastrous areas. Every year nearly 7 typhoons strike China's southeast coastal areas. The storm-surge is the most threatening maritime disaster in China with the heaviest death toll

of more than 100,000 in the severest one. Sandstorms, hails, snowstorm, frosting and other disasters cause grave losses as well.

The geological and seismic disasters including earthquakes, cave breakdowns, landslides, mud-rock flows, subsidence and desertification. China is a country where earthquakes frequently occur. Since 1949, earthquakes have claimed nearly 300,000 lives, injured and disabled nearly 1 million people and destroyed more than 10 million houses. In 1976, an earthquake with a Richter magnitude of 7.8 hit Tangshan, killing 242,000 lives and injuring 164,000 people. More than 410,000 localities suffer cave breakdowns, landslide and mud-rock flows with an annual death toll of nearly 1,000. 2.62 million square kilometers of land have been desertified. 2,460 square kilometers of land becomes sand annually and more than 1.8 million square kilometers of land have been lost due to water erosion.

Biological disasters. More than 1,400 types of pests and rodents cause losses of nearly 50 million tons of grain and over 1 million tons of cotton. Over 20 million hectares of grassland and 8 million hectares of forests suffer pests and rodents annually.

Fire in forests and grassland. Since 1950, an annual average of 16,000 forest fires occurs in China, affecting nearly one million hectares of forests. Fire poses threat to 200 million hectare of grassland, of which nearly one hundred million hectares are frequently affected.

2.Natural disasters show an obvious regional discrepancy. According to the characteristics of natural disasters and the actual situation of disaster management in China, three types of regions can be categorized.

The first type mainly includes western regions and a few northern localities. Due to underdeveloped economy, the absolute quantity of direct economic losses in these regions is modest but the relative loss ratio (the average direct economic loss as compared to the gross domestic product) is medium or high as the regions are vulnerable to natural disasters. Most regions are severe drought areas in China with low population density. The major hazards are droughts, snowstorms, earthquakes, sandstorms, mountainous floods, landslides and mud-rock flows, which substantially affect agriculture and stock raising.

The second type of regions is mainly located in Central China, and partly in the northeast, north and southwest of China. In this category, the economic development level, direct economic losses caused by the

disaster and disaster-resistant capability are at the medium level. The northern part is strongly influenced by the Antarctic anticyclone while the southern part is the sub-tropical region home to the middle reaches of China's big rivers with a higher precipitation. The population density is medium or high in these regions. The hazards are mainly droughts, floods, earthquakes, frosting, hailstorms, farming pests, landslides, mud-rock flows and forestry natural disasters which have major impact on agriculture, industry and transportation.

The third type of regions is situated along the eastern coasts. The absolute quantity of disaster-caused direct economic losses is high. However, the direct economic loss ratio is medium or low owing to its relatively strong economy and greater disaster-resistant capability. The subtropical high pressure and tropical cyclone have mostly affected these regions. Moreover, these regions are located in the lower reaches of big rivers in China with a high population density. The major natural hazards are floods, droughts, typhoons, storm-surges, earthquakes, hailstorms and subsidence, which affect industry, agriculture, transport and city infrastructures.

3.Natural disasters cause severe losses which have been on the rise. China has become one of the few countries that suffer the worst losses caused by natural disasters. On average, 200 million people are affected by disasters every year among whom several thousand people are killed. Moreover, 3 million people need to be resettled, more than 40 million hectares of crops are afflicted by disasters and 3 million houses are destroyed. Though the national economy has attained rapid and sustained growth with expanded production scale and accumulated social wealth, disaster reduction development has not been able to keep pace with the rapid economic growth, hence, the losses caused by natural disasters have increased. Since 1990s, China has been afflicted by frequent occurrences of floods, droughts, typhoons, earthquakes, fire, farming and forest pests, landslides and mud-rock flows. New and major disastrous incidents keep cropping up with surging losses. 370 million people are affected annually; 740 million mu of crops have been affected; 4.182 million houses destroyed; over 4 million people resettled. The direct economic losses have totaled 100 billion yuan, 40% higher than in 1980s. Typical disasters are as follows: extremely severe floods in the Yangtze River, Songhua River, and Neng River; sustained severe drought in North China from 1999 to 2001; the earthquake in Lijiang, Yunan in 1996, and floods in Huai River in 2003.

II. Basic Situation of Disaster Reduction in China

1. Major Disaster Reduction Actions

1) An inter-agency coordination body for disaster reduction has been set up. In 1989, responding to the UN's appeal of the International Disaster Reduction Decade, the Chinese Government set up the China National Commission for the International Decade on Natural Disaster Reduction. It was renamed as the China Commission for the International Disaster Reduction in 2000 headed by a Vice Premier of the State Council. It is composed of 30 ministries and departments, including relevant military agencies and social groups. It functions as an inter-agency coordination body under the State Council, which is responsible for studying and formulating principles, policies and plans for disaster reduction, coordinating major disaster activities, giving guidance to local governments in their disaster reduction work, and promoting international exchanges and cooperation.

2) A series of laws and regulations on disaster reduction have been promulgated and enforced. Under the principle of rule of law, China has promulgated and enforced a series of laws and regulations on disaster reduction so as to legalize the disaster reduction undertakings. More than 30 laws and regulations have been promulgated and implemented including the *Law on Water and Soil Conservation*, the *Law on Earthquake Prevention and Disaster Reduction*, the *Law on Fire-Fighting*, the *Meteorological Law*, the *Law on Production Safety*, the *Regulation on Forest Fire-Fighting*, the *Regulation on Preventing Forest Pests*, the *Regulation on Safety Management of Dangerous Chemicals*. All these laws and regulations have gradually legalized China's undertakings in water and soil conservation, earthquake prevention and disaster reduction, fire-fighting, flood-prevention and meteorology, and the working pattern of reducing disasters in line with the law has taken shape.

3) The national disaster reduction plan has been o formulate and implement. In April 1998, the Chinese Government promulgated the *National Natural Disaster Reduction Plan of the People's Republic of China (1998 -2010)* (hereinafter referred to as the *Disaster Reduction Plan*, which is the first national disaster reduction plan formulated in accordance with the Ninth Five-Year National Economic and Social Development Plan and the 2010 Long-term Objective. It is a basic guidance based on past experience to carry out its disaster reduction work. Its formulation has been greatly supported and assisted by the UN Development Program.

The *Disaster Reduction Plan* has identified the following guiding

principles in China's disaster reduction work. Disaster reduction should serve the national economic and social development. Prevention should be taken as the priority in combination with resistance and relief. Major issues bearing on the overall situation will be well settled. The role of science, technology, and education will be fully displayed in disaster reduction. The central and local governments as well as all social sectors will be mobilized to reduce disasters and international exchange and cooperation will be strengthened. The major objectives are set as follows. Key disaster reduction projects which have a bearing on the overall interests of national economy and social progress will be built. Disaster-reduction technology will be widely applied. The public awareness and knowledge will be enhanced. A comprehensive working mechanism will be set up so as to alleviate impacts inflicted by disasters on the national economic and social development and markedly reduce direct economic losses and human casualties. The *Disaster Reduction Plan* has also put forward the tasks, measures and major actions on disaster reduction. After its promulgation, it has been actively implemented while relevant departments and localities are accelerating their corresponding plans and implementation details.

4) A great number of projects have been completed. Large-scaled projects have been carried out in flood-afflicted river areas, by drought- and pest- stricken farmland, regions hit by frequent earthquakes, geological disasters and storms and cities as well as sections of roads and railways affected by mud-rock flows and landslides. Over the years, the Chinese Government has invested 11.368 billion yuan to complete or start 1,461 protective embankments in areas along the Yangtze River, Dongting Lake and Poyang Lake. 620,000 households and 2.42 million people have been resettled. 2,900 square kilometers of water area in the Yangtze River, Dongting Lake and Poyang Lake have been restored with a newly added storage capacity of 13 billion cubic meters. 178.6 billion yuan have been invested to complete such key flood-prevention projects as embankments in major rivers, trunk line projects in key rivers, water diversion and reservoir consolidation projects. 67.33 billion yuan have been invested, 66.27 billion have been devoted to such ecological projects as key forest ecological development, forest fire-prevention, and forest pest-prevention. 13.3258 million hectares of land have been reforested, among which 6.4365 million hectares forests have been reverted from farmland, and 6.8893 million hectares barren hills and land have been reforested. 4.91 million hectares of land, which is the source of sand storm in Beijing and Tianjin, has been treated. As a result the ecological situation in Beijing and its surrounding area has been effectively improved. Geological

survey carried out in 555 counties and cities with severe threats from geological disasters have identified 40,000 geologically-risky points.

5) The disaster monitoring and pre-warning system has been set up and improved. Currently the disaster monitoring and pre-warning system in China has taken shape and relevant departments are able to timely forecast disasters in line with the rules of disaster management. Throughout the country, a weather monitoring and forecast network composed of 251 ground meteorological stations, 124 high-altitude monitoring stations and more than 80 new weather radars has been set up. An earthquake monitoring network has been established made up of the national digital earthquake network of 48 earthquake stations 23 regional digital remote-monitoring stations, 25 GPS stations and 56 crust movement monitoring networks composed of 1,000 mobile observatories and 400 stations. A hydrometric network composed of 3,130 basic hydrometric stations, 1,073 water level stations, 14,454 precipitation survey stations and 11,620 underground water observing wells has been put in place. A forest fire-fighting and pest preventing forecast network has been set up composed of 2,867 inspection and quarantine stations, 3,151 forest fire-fighting headquarters, 11,222 forest fire-fighting watch towers, 300,000 kilometers of fire-separation roads and 1.03 million kilometers of fire separation zones. A pest monitoring network has been established composed of 400 regional forecasting stations, 15 monitoring centers and 300 regional monitoring stations. The constant improvement of monitoring and pre-warning system targeted against various natural disasters has guaranteed the timely organization of disaster reduction and relief work by governments at different levels.

6) A National Disaster Reduction Center has been set up. In April 2002 the Chinese Government approved the founding of the National Disaster Reduction Center, which serves as a center for disaster information sharing, technical services and emergency relief decision consultancy. Its main functions are specified as follows: to assess and analyze the occurrence and development of major disasters, and provide services on forecast, assessment and supporting disaster reduction decisions and information; to collect and analyze disaster reduction information both at home and abroad for information sharing; to provide technical assistance and supporting decisions for major emergency relief work; to organize international disaster reduction exchanges and cooperation.

7) Small-satellite constellations for environment and disaster monitoring will be built. On 12 February 2003, the Chinese Government officially

approved the project of small-satellite constellations for environment and disaster monitoring. In 2006 two small optical satellites and a radar satellite will be launched for forming a "2+1" constellation, which will have preliminary capabilities of timely monitoring and forecasting disasters and environment developments in most of regions in China. Before 2010, a "4+4" small satellite constellation composed of 4 small optical satellites and 4 small radar satellites will be completed which will change the current mode of disaster monitoring in China and realize 24-hour and all-weather monitoring on environment and disasters. Currently, the research on the satellite effective load is well underway. Concerning the ground system, it is planed that the existing remote-sensing ground stations will be fully upgraded and supplemented so that an applied system on disaster reduction and environment will be set up.

8) A national emergency-response plan system for natural disaster management has been set up. In order to improve various pre-warning and emergency-response mechanisms and governments' capabilities to handle emergencies and risks, the Chinese Government has taken the formulation and revision of various plans for public emergencies, natural disasters included, as one of the major tasks in 2004. At present, relevant departments under the State Council have basically completed their emergency-response plans. 27 provinces and 1,700 counties have also released their plans. As a result, a national emergency-response plan management system for natural disasters has already taken shape.

9) A material reserve system of disaster relief has been improved. Since 1998 China began to set up a central-level material reserve system for disaster relief. Central-level material reserve points for disaster relief have been built in Shenyang, Harbin, Tianjin, Zhengzhou, Hefei, Wuhan, Changsha, Nanning, Chengdu and Xian. Provincial-level material reserve warehouses for disaster relief have been set up in 26 provinces, autonomous regions and municipalities. In some cities and counties vulnerable to disasters, local material reserve warehouses for disaster relief have been built as well. Currently, living materials such as 370,000 tents with a size of 12 square meters, clothing and quilts have been stored in reserve and a network of disaster-relief material reserve has been preliminarily set up. Once disasters strike, the relief material will be immediately shipped to disaster-hit areas to guarantee the necessities of the local people. In 2003 emergency relief materials such as 130,000 tents were transported to disaster-hit Huai River and Wei River areas, which ensured the proper resettlement of disaster victims.

10) The public awareness of disaster reduction has been raised. The Chinese Government has uplifted the public awareness of disaster reduction by way of timely reporting disasters and relevant disaster reduction activities and holding specialized lectures, columns and programs on TV, radio as well as newspapers. Various charity shows for disaster reduction and poverty relief, disaster-reduction summer camping activities for middle school students and national quiz shows on disaster reduction were carried out throughout the country. In line with the theme of the International Day of Disaster Reduction, multiple publicity campaigns on disaster reduction were launched. Educational departments have added into the curriculum disaster-reduction knowledge in primary and middle schools so that the youth can understand reasons for and general rules of various disasters and general practices to be adopted in preventing and coping with disasters. In higher education, different levels of disaster-reduction education have been carried out in combination with disaster-reduction research, and a contingent of talents has been fostered.

In May 2004 the Chinese Government for the first time held a Workshop on Disaster and Emergency Management for Provincial and Ministerial Officials. 60 provincial and ministerial officials involved in disaster reduction attended the 7-day workshop and 14 experts from home and abroad delivered specialized reports. Thanks to the workshop, the leadership, management and comprehensive coordination capacities in emergency response have been visibly enhanced.

11) All social sectors for disaster reduction have been mobilized. When major disasters occurred, all social sectors both at home and abroad donated money and material to support disaster-hit areas. From 1996 to 2003 over 23 billion yuan and 957 million pieces of clothes and quilts were donated and more than 400 million disaster- and poverty-stricken people were benefited. In 1998 when floods hit, 351.5 million yuan and materials at a value of 374.4 million yuan were donated with a total amount of 725.9 million yuan.

Various social groups have also played a major role in disaster-reduction activities. The China Red Cross Committee has contributed greatly to disaster-reduction publicity, disaster preparation, organization of humanitarian assistance both at home and abroad, and post-disaster disease prevention and treatment. It set up multiple regional disaster-preparation centers integrating storing, processing, transshipping and training functions. All these centers serve the disaster reduction work and medical treatment in their respective regions. The

China Charity Foundation, for the purpose of aiding people afflicted with poverty and hardship, has raised great numbers of relief funds and materials. The Chinese Association of Disaster Reduction has focused on disaster relief, disaster-reduction training and post-disaster rebuilding.

An increasing number of non-governmental organizations are being involved in disaster reduction and becoming an important force in disaster-reduction contingents, playing an ever-bigger role.

12) International cooperation and exchanges on disaster reduction have been promoted. The Chinese Government attaches great importance to and supports various forms of international cooperation and exchanges on disaster reduction. From 10 to12 June 1999, the Chinese Government and UN cosponsored an international seminar on natural disaster management, which was attended by more than 120 experts, scholars and officials from over 40 governments, relevant UN agencies, international organizations and social groups. From May 25 to 27 2004, an international conference was cosponsored by the Ministry of Civil Affairs of China and the UN Secretariat of Disaster Reduction Strategy. 18 countries including Bangladesh, Japan, Russia, ROK and Laos, 7 international organizations such as UNECEF and representatives from over 20 central governmental agencies and a dozen of local civil affairs departments attended the conference. Proposals were made on the formulation of disaster-reduction policies, identification of disaster risks, assessment and pre-warning, disaster-reduction knowledge and education, reduction of disaster risks, disaster preparation and plans as well as regional and international support on national and local disaster-reduction work, and the *Beijing Declaration* was agreed upon. From July 11 to 14 2004, sponsored by the Bureau of Seismology of China and cosponsored by relevant government agencies of China and UN agencies, the third international conference on seismology was held, in which more 500 representatives from 42 countries, regions and international organizations participated.

The fact that the 1998 UN Disaster Prevention Award was presented to Chinese officials and scientists has shown the recognition by the international community of China's work on disaster reduction, which has been widely supported and assisted by the international community. Many friendly countries, organizations and people extended help to China during the 1998 great floods and other major disasters. China has also provided assistance within its capacity to countries and regions victimized by severe natural disasters.

2.China's Experience in Disaster Reduction

1) The great attention and support of governments at all levels are important preconditions for the constant development of disaster reduction. The Central and local governments, taking the maximum reduction of human and property losses and the guarantee of economic development and social tranquility as the basic goal, have attached great importance to and supported disaster reduction. On the basis of unitary organization and coordination, they have invested substantial financial and human resources in disaster-reduction projects and relief work, and included disaster-reduction tasks in the long and medium term plans and annual plans of the national economic and social development, which have ensured the smooth unfolding of disaster-reduction work.

2) Coordination of relevant departments and wide participation of the general public are the reliable guarantee for disaster reduction. Close coordination of relevant departments, joint efforts made by the People's Liberation Army, Armed Police Force, police forces and militias as well as wide participation of the general public have ensured the successful completion of large-scaled disaster-reduction projects, disaster resistance and relief, and post-disaster recovery and rebuilding.

3) Balanced arrangements with priorities are the main principle to be followed in disaster reduction. Prevention should be firmly taken as the priority in combination with resistance and relief. Funds should be collectively used, and all disaster-reduction resources should be reasonably allocated. Equal importance should be given to disaster reduction and economic development. Priority should be given to disaster-reduction projects significant to economic and social development while focusing on preventing natural disasters most seriously threatening life and property safety as well as socio-economic development. Practice has proved that this is an important principle in disaster reduction.

4) Fully displaying the role of science, technology and education is the strong impetus to disaster reduction. Efficiency and comprehensive disaster-reduction capacities have been enhanced thanks to intensified scientific research on disaster reduction, accelerated modernization of disaster management and wide application of high technology. Disaster publicity and education have been strengthened, related knowledge has been popularized and relevant training has been carried out which have effectively enhanced the disaster-reduction awareness of the general

public and laid a solid foundation for disaster-reduction undertakings.

5) The improvement of the legal system is the objective demand for smooth development of disaster-reduction undertakings. The institutionalization and legalization of disaster-reduction work have been boosted thanks to the establishment of a disaster-reduction law system and formulation of relevant laws, regulations and plans.

Great achievement has been made in China's disaster-reduction undertakings. However, there are also some problems worth attention. They are manifested as follows: the development of disaster-reduction projects can not keep up with the rapid development of the national economy; disaster-reduction plans of governments at various levels have yet to be systemized and standardized, and relevant regulations need further improvement. Disaster assessment technology and methods are relatively backward, and more efforts need to be made in applying scientific results to reducing disasters; disaster relief equipment is backward, and the reserve system of disaster relief material and emergency response capabilities urgently need improvement; disaster-reduction publicity and education should be further strengthened.

In order to ensure sustainable development of national economy and overall social progress, great importance should be attached to disaster reduction while accelerating economic growth so as to realize China's strategic objectives in its national economic and social development.

III. Guiding Principles, major targets, tasks and measures of China's disaster Reduction work.

1.Guiding Principles.

1) The principle of putting people's interests first and the scientific concept of development should be carried out. Disaster reduction should be secured with an important status in national economic and social development. The principle of parallel development of economy and natural disaster reduction should be followed. Disaster reduction should be included in the strategic framework of sustainable development. A series of comprehensive disaster-reduction activities should be adopted to protect people's lives and properties.

2) Disaster prevention should be the major priority in combination with disaster resistance and relief. The disaster-reduction awareness of the general public should be further enhanced. Disaster reduction should be taken into account in constructing production and living facilities.

Multiple methods and measure should be implemented to carry out disaster-reduction projects so as to display the overall efficiency of various disaster-reduction projects and step up relevant undertakings.

3) Overall interests should be borne in mind with set priorities. Key issues bearing on the overall interests of disaster reduction should be well settled. Limited resources should be concentrated on strengthening the development of key projects and comprehensive work on reducing disasters in key regions. Focus should be put on reducing natural disasters having major overall or regional impacts. In the meantime, efforts should be made to explore effective ways to reduce other natural disasters.

4) The role of science, technology and education should be fully displayed in disaster reduction. The process of transforming existing scientific results into actual capabilities of disaster reduction should be accelerated for better abilities to reduce disasters. Disaster-reduction education should be integrated with popularized and specialized education oriented towards whole society so as to uplift the level of disaster-reduction knowledge of the general public.

5) All positive elements should be mobilized. Initiatives of the central and local governments as well as all social sectors should be displayed. Under the unitary organization and deployment of the government, relevant departments should coordinate closely with each other and enterprises as well as cross-sections of society should be broadly involved for effectively reducing disasters.

6) International exchanges and cooperation on disaster reduction should be strengthened. Multi-channeled and multi-layered international exchanges and cooperation should be actively carried out to continuously improve China's disaster-reduction undertakings and China's standing in the international disaster-reduction community.

2. Major Targets

The major targets in disaster reduction are as follows: through the construction of a number of disaster-reduction projects which have overall and key roles in the national economic and social development, wide application of disaster-reduction scientific achievements, the disaster-reduction awareness and knowledge level of the general public will be enhanced and a well-established working mechanism will be put in place with a view to alleviating the impacts from various disasters on

China's economic and social development, and markedly reducing the direct economic losses and human casualties caused by disasters.

1) Disaster reduction in agriculture and rural areas. The guiding principle of giving priority to agriculture in national economic development will be abided by and a sound disaster-reduction system for agriculture will be built. Floods in the Yangtze River and Yellow River will be basically harnessed, and floods along other major rivers will be effectively reined in. The severe water scarcity in certain regions of North China will be eased, and acceleration of water and soil erosion, desertification, soil salinization and grassland degeneration will be basically controlled. Impacts by maritime disasters on agriculture will be reduced. Disaster preparedness in agriculture will be raised to resist medium-level natural disasters thanks to wide application of disaster-reduction science and technology and upgrading of disaster-resistance capacities of townships, villages and township enterprises. The overall disaster-reduction capacities in agriculture and rural areas will be increased through the development of comprehensive agricultural projects for reducing disasters so that in agricultural production, the loss ratio and human casualties due to natural disasters will be decreased substantially.

2) Disaster reduction in industry and urban areas. Comprehensive disaster-reduction plans will be completed in localities above the county level. Cities, buildings and facilities therein will be up to the stipulated standards of disaster resistance and prevention. Various disasters threatening industrial production and urban safety will be effectively harnessed or controlled. Major cities, industrial bases, life-line projects and key enterprises will be equipped with capacities of resisting major disasters so that the infrastructure and life-line projects in major cities will not be affected by medium and small disasters and will be able to recover soon after being hit by major disasters.

3) Disaster reduction in regions. A well-established regional system of disaster-reduction projects will take shape with a view to scoring parallel development of regional disaster-reduction projects and economy. The loss ratio due to disasters in key regions will be reduced visibly. Comprehensive disaster-reduction plans in high-risk regions will be implemented. Standardized management will be basically realized in resource development. Man-made disasters will be effectively controlled. Successful experience in disaster-reduction model areas will be promoted in other similar areas. Thanks to all these efforts, the comprehensive disaster-reduction capacities will be markedly raised.

4) Disaster reduction in society. A national legal system on disaster reduction will be established. Various forms of disaster-reduction education will be popularized and the awareness of the general public will increase. Scientific and educational contingents on disaster reduction will be able to meet demands at different levels. The disaster monitoring and information system will be further improved. Disaster preparedness and relief capacities will be strengthened with insurance becoming an important means of economic compensation. Disaster-reduction science and technology will be widely applied. The government's capacities of reducing disasters will be greatly improved and a modernized national and local management system will be formed. As a result, the non-engineering development of China's disaster-reduction work will gradually reach the world advanced level.

5) International exchanges and cooperation on disaster reduction. China will be extensively involved in international disaster-reduction actions and make its contribution to the sustained development of international disaster-reduction activities through regular bilateral and multilateral exchanges and cooperation.

3. Major Tasks and Measures.

Major tasks for reducing disasters are as follows. In line with the overall tasks and principles as well as the comprehensive plans of the national economic and social development, disaster-reduction projects and non-engineering development will be sped up and the operational mechanism on disaster reduction will be improved so that the general level of China's disaster-reduction work will be enhanced and fully promoted.

The following measures will be taken to complete the major tasks of disaster reduction.

1) Disaster reduction will be further defined as the basis of ensuring sustainable development of national economy and society. Governments at all levels should attach great importance to disaster reduction, include it in their plans of national economic and social development, formulate disaster-reduction and emergency-response plans in light of their specific conditions and take effective measures to actively push forward disaster-reduction undertakings.

2) Priorities in disaster reduction should be clearly identified. Priorities should be given to major cities, key projects with overall and crucial

roles in the national economic and social development and disasters affecting the whole country or major regions. Resources should be concentrated to reduce losses and impacts due to disasters on the national economy.

3) The national management system of disaster reduction will be gradually improved. The inter-agency disaster-reduction coordination body under the State Council will further enhance its coordinating capacities. All functional departments under the State Council will closely cooperate and coordinate with each other in light of their respective duties to ensure the success of disaster reduction. The responsibilities of the central and local governments will be clearly defined and a grading management system of disasters will be carried out with a view to gradually putting in place a sound disaster-reduction management system.

4) Modern science and technology will be fully utilized to increase the overall national capacities of reducing disasters. In particular, the monitoring and pre-warning of major disasters will be strengthened. So will the level of information collecting and processing. Disaster assessment will be well carried out and an information-sharing system will be set up. The material reserve system for disaster relief will be improved. Integrated research on disaster reduction will be further strengthened to uplift the capacities of responding to disastrous emergencies.

5) The legal system on disaster reduction will be strengthened. Research on disaster-reduction legislation will be actively unfolded, and disaster-reduction laws and regulations will be improved so as to further standardize and institutionalize disaster-reduction work.

6) The fund-raising channels will be broadened to increase inputs in reducing disasters. Disaster-reduction inputs of governments at all levels should be in balance with the national economic and social development and on the rise as the national strength constantly increases. Enterprises should enhance their preparedness against disasters and take an active part in the development of local disaster-reduction projects. A full play should be given to insurance in compensating losses caused by disasters. The fine tradition of “whole society helping those in difficulty” will be carried forward. The non-governmental mutual assistance will be strengthened and a social support and assistance mechanism will be established.

IV. Major Disaster-Reduction Actions

1. Disaster reduction in agriculture and rural area.
In terms of disaster-reduction projects, the harnessing of major rivers and lakes will be reinforced. Priorities will be given to the construction of a number of key water conservancy projects with capacities of preventing the severest flood since the founding of the PRC as the benchmark. Agricultural infrastructure development will be pushed forward with farmland water conservancy as the key. Dry farming technology will be vigorously promoted with water saving and soil conservation as the main focus so as to increase the anti-flood, anti-drought and flood-diverting capacities in agriculture. Concentrating on water and soil conservation and ecological improvement, such projects will be continued as forestation in Northwest, North and Northeast China, upper and middle reaches of the Yangtze River and coastal areas; forestation in Taihang Mountain and sand prevention and treatment. The integrated prevention and treatment of bio-disasters, sandstorms, fire in forests and grassland, husbandry plagues and diseases and snowstorms will be beefed up. The construction of integrated disaster-reduction projects will be carried out in townships and villages in relatively developed regions and in areas with a high density of township enterprises.

In terms of non-engineering disaster reduction, the national plan for agricultural disaster reduction should be finalized and integrated regionalization of agricultural disaster reduction will be compiled. Model villages and townships will be build in which applied disaster-reduction technology are extensively popularized and utilized. Monitoring, forecasting, prevention and treatment of disastrous weather, major pests and rodents for agriculture and forestry, husbandry diseases and fire in forests and grassland will be reinforced. A monitoring and assessment system of agricultural natural disasters will be established and improved.

2. Disaster reduction in industry and urban areas.
Concerning disaster-reduction projects, key projects preventing floods, earthquakes, typhoons, wave surges, heavy waves, landslides, mud-rock flows, collapses, subsidence, fire and other disasters will be well pursued so as to raise disaster preparedness in large and medium industrial bases, transport trunk lines, communication hubs, major facilities and life-line projects. Disaster-reduction systems in enterprises will be improved and management of disaster-reduction projects and

danger sources will be strengthened to rein in the occurrence of man-made disasters. Cities, buildings and facilities will be up to the national stipulated standards of disaster resistance and prevention. Major flood-control cities will complete anti-flood projects as stipulated and other cities with flood-control tasks will visibly increase their flood-prevention capacities as well.

On non-engineering disaster reduction, sectoral plans for industrial disaster reduction and integrated disaster-reduction plans for cities will be formulated. The disaster-reduction capabilities of urban lifeline guarantees and emergency-response systems will be enhanced. The fire-fighting level of modern buildings and facilities will be upgraded.

3. Disaster reduction in regions.
In terms of disaster-reduction projects, in eastern regions of China, disaster-reduction projects will be fully reinforced. Regional disaster-reduction projects will be taken as important infrastructure. Priority will be given to disaster-reduction projects around Beijing, developed coastal areas, areas with dense population and major grain and cotton producing areas. In Central China, focus will be put on disaster-reduction projects in industrial and agricultural bases as well as in cities. In China's west, work will be concentrated on disaster-reduction projects in basic industries as well as agricultural and husbandry bases to protect living and development environment.

On non-engineering disaster reduction, high-risk areas will be identified scientifically and integrated plans for disaster reduction and resource utilization will be formulated. Some high-risk areas with major impacts on regional economic and social development and with advanced agricultural and industrial production will be chosen to build model areas on disaster reduction therein. In support of the national strategy of poverty alleviation, efforts will be made to push forward disaster reduction in poverty-stricken areas vulnerable to disasters and to accelerate poverty eradication.

4. Disaster reduction in society.
The macro-management by the state on disaster reduction will be strengthened and the process of relevant legislation will be sped up. Integrated plans for reducing disasters will be compiled in all provinces, autonomous regions and municipalities. Regionalization of disaster risks will be made. The level of information collecting, processing, using and sharing will be enhanced. The monitoring and pre-warning system for major disasters will be improved. The integrated coordination capacities

of reducing disasters will be reinforced. Emergency plans will be worked out for major natural disasters, and the commanding, dispatching and communication system for disaster emergencies will be improved. A material reserve system for disaster reduction will be put in place and upgraded. Comprehensive assessment on disasters will be carried out and a scientific disaster assessment system will be set up.

Extensive publicity will be unfolded thought news media, publications and arts shows so as to raise the awareness of the general public. Disaster-reduction education in primary and middle schools will be intensified. Specialized education will be carried out at different levels so as to uplift the qualification of managerial personnel for reducing disasters.

Scientific research on disaster reduction will be beefed up and importance will be attached to basic theoretical studies on the spatial and geographical rules of the forming, occurrence and development of disasters as well as the disasters' impacts on environment, economy and society and their interactions. Research on applied science and high technology preventing major disasters will be rigorously spearheaded. The transformation of scientific results will be accelerated. The wide application of applied science and high technology such as satellites, remote sensing, geological information system and global positioning systems will be promoted.

Publicity campaigns on disaster reduction will be carried out in communities so that through various forms of publicity activities, residents will get to know the danger of disasters, acquire the basic knowledge of disaster evasion, self assistance and mutual assistance, raise their awareness of disaster reduction, and learn how to coexist and cope with disasters.

A disaster insurance system will be set up and enterprises and individuals are encouraged to participate in insurance so as to increase social resilience against disasters. Efforts will be devoted to making disaster-relief donations regular and socialized. Non-governmental mutual assistance and wide involvement of social group in reducing disasters will be encouraged. Effective measures will be taken to help such special groups as the old, minors and the disabled to be more capable of resisting disasters. Central and local medical systems will be improved to raise the capacities of medical institutions of resisting disasters and handling emergencies.

5. International cooperation on Disaster reduction.

In terms of disaster-reduction projects, introduction of funds and advanced technologies will be encouraged in major disaster-reduction projects. Various types of model areas of projects for disaster reduction will be built through multiple ways of cooperation.

On non-engineering disaster reduction, international cooperation will be promoted on government capacity-building, information sharing, publicity, education, personnel training, scientific research and development as well as international humanitarian assistance.

Closer international cooperation on disaster reduction is an important part in China's disaster reduction undertakings. The Chinese Government welcomes the participation of international organizations, governments, social groups and individuals in China's disaster reduction work. China is ready to carry out international personnel, financial and technical exchanges and cooperation, take an active part in international disaster-reduction activities and work together with all other countries for a safer world in the 21st century.