

6 | Project Proposals

6.1 Monitoring land degradation and desertification

Land degradation and desertification are important environmental problems in Asian countries and regions. Over the past 45 years, due to rapid urbanization and industrialization, large-scale deforestation and overgrazing, close to 20% of grassland and forest land in the Asia-Pacific region was affected by land degradation and desertification, which was more significant in Northeast Asia, especially Mongolia and China. In recent years, influence of frequent dust storms has spread to the Korean Peninsula and the Japanese Archipelago. A growing number of Asian countries have recognized the urgency and importance of combating desertification, actively accepted the United Nations Convention to Combat Desertification. In addition, some countries have begun to develop domestic action programs, such as China, Mongolia and so on. Therefore, accelerating technology development of monitoring and assessment of land degradation and desertification is both the premise and basis of scientific response to land degradation and desertification, and the inevitable choice of effective controlling land degradation and desertification.

The project aimed at monitoring and assessment of land degradation and desertification in Asia, thereby contributing to create a database and information exchange of land degradation and desertification in Asia (Kamiyamaguchi et al., 2001). Based on the monitoring and assessment strategies launched by China and Asia-Pacific region in 1999, the project is to build a network, including all countries and regions in Asia, to carry out integration and unified management of the relevant data and analysis method in land degradation and desertification, of capacity-building experience of countries and regions in Asia, of the research and utilization of new information technology and space technology. The project is to monitor and evaluate land degradation and desertification of countries and regions in Asia based on satellite data (MODIS Moderate Resolution Imaging Spectrometer). At the same time, a variety of international and

local organizations would be involved in the evolution of land degradation and desertification trends, forecasting and creating the corresponding statistical data sets.

1) Targets

- to promote the implementation of the United Nations Convention to Combat Desertification (UNCCD) in Asian countries and regions
- to monitor and evaluate the land degradation and desertification of the countries and regions in Asia
- to provide technical assistance and advisory services for the action plans of all countries and regions in Asia combating land degradation and desertification
- to provide assistance to the capacity-building of land degradation and desertification monitoring and assessment for countries and regions in Asia, at the same time, to provide technical assistance in the creation of information exchange platform and database

2) Implementation

- to monitor and evaluate land degradation and desertification of other countries and regions in Asia
- to strengthen the implementation of the United Nations Convention to Combat Desertification (UNCCD) and its related theme in the countries and regions in Asia
- to improve the financing mechanisms and institutional building, and to promote the implementation of action programs combating land degradation and desertification of countries and regions in Asia
- to promote networking and information exchange on land degradation and desertification of countries and regions in Asia, and to establish collaborative mechanisms between the domestic and regional action programs

6.2 Increased development of small and medium-sized municipal wastewater treatment plants

In recent years, with the rapid growth of agricultural, industrial and domestic consumption demand for water, pressure on fresh water sources (including rivers, groundwater, lakes and reservoirs) has been increasing, with competition and conflict of water resource between the sectors escalating. Water shortages and deteriorating quality become the general trend of development in Asia at the present stage.

At present, countries and regions in Asia are faced with different water issues. China faces industrial wastewater, pollution of domestic sewage emission, drought and flooding problems caused by uneven distribution of