

## **ENVIRONMENTAL LAW AND POLICY FRAMEWORKS TO MANAGE LAND DEGRADATION: THE PEOPLE'S REPUBLIC OF CHINA-GLOBAL ENVIRONMENT FACILITY PARTNERSHIP ON LAND DEGRADATION IN DRYLAND ECOSYSTEMS<sup>1</sup>**

### **INTRODUCTION**

This paper outlines the People's Republic of China-Global Environment Facility (PRC-GEF) Partnership Project and the role it is playing in the development of improved legal and policy frameworks for the control of land degradation in western area of the People's Republic of China (PRC). The project area covers the six dryland provinces/regions of western PRC: Ningxia, Shaanxi, Xinjiang, Gansu, Qinghai, and Inner Mongolia.

The basis for the improved frameworks is presented, use of best international environmental law experience, particularly a method developed by the Commission of Environmental Law of the IUCN (The World Conservation Union), and the benefits to be gained by PRC from improved legal and policy frameworks that incorporate the concept of integrated ecosystem management (IEM). Conclusions are drawn on the contribution the frameworks will make to the development of environmental law at the international level and the management of land degradation in drylands regions of the world.

The arid, semi-arid, and sub-humid (dryland) zones of western PRC cover 40 percent of the country and contain some of the most severely degraded land to be found, both within the country and globally. The PRC's drylands have been adversely affected by such degradation processes as severe wind and water erosion, soil nutrient losses, water logging, salinization, river system sedimentation, deforestation, grassland degradation and bio-diversity loss. This has not only impacted on the lives of the people, who reside in the area, but has also affected the quality of life for many more living in central and eastern PRC through increased exposure to severe dust storms, originating in the west, as well as reduced quality and quantity of water, especially in the middle and lower reaches of the Yellow River (ADB 2005).

### **PRC-GEF PARTNERSHIP PROJECT**

The PRC-GEF Partnership is a commitment between national and international organizations to support IEM approaches to combat land degradation, reduce poverty and restore dryland ecosystems in the Western region of PRC. The Partnership is helping the PRC combat land degradation through a country programming framework (CPF) approved by the Council of the Global Environment Facility (GEF) in October 2002. The CPF involves 11 key central agencies, including National Development and Reform Commission, Ministry of Finance (the executing agency), Ministry of Agriculture, Ministry of Water Resources, Ministry of Land and Resources, State Environmental Protection Agency, Chinese Academy of Sciences, Ministry of Science and Technology, Legislative Work Committee of the National People's Congress, Legislative Affairs Office of the State Council and the State Forestry Administration (ADB 2004). The CPF covers a 10 year period (2003-2012) and supports a number of priority activities, including:

Strengthening the enabling environment and building institutional capacity to combat land degradation.

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## Demonstration investment projects.

Investments envisaged in the CPF are estimated at about \$1.5 billion of which GEF is providing \$150 million in grant assistance, while government funding (\$700 million), concessional loans and grants from donors (\$650 million) make up the remaining \$1,350 million. The Gansu and Xinjiang Pastoral Development project is the World Bank's first project under the Partnership of \$10.6 million (GEF), followed by the Capacity Building for Land Degradation Control project \$7.7 million and there is the proposed Ningxia–Yinchuan Integrated Ecosystem Management Project of \$10 million (GEF).

Phase one the PRC-GEF Project (2003-2008) introduces the concept of IEM and covers six provinces/regions of Gansu, Inner Mongolia, Ningxia, Qinghai, Shaanxi and Xinjiang. It has six main Components:

- Improving the policies, laws, and regulations for land degradation control.
- Strengthening the national and provincial coordination.
- Improving the operational arrangements at provincial/ region and country Levels.
- Developing land degradation investment projects.
- Developing a monitoring and evaluation system for land degradation.
- The implementation arrangements for the CPF Implementation in the six provinces/autonomous regions.

### **Integrated ecosystem management**

IEM is defined as a holistic approach to address the linkages between ecosystem functions and services (such as carbon uptake and storage, climatic stabilisation and watershed protection, and medicinal products) and human social, economic and production systems (such as crop production, nomadic and sedentary livestock raising and provision of infrastructure) ” [GEF 2000]. The IEM approach offers the PRC a new way to plan and manage the natural resources within its drylands. It also provides an integrated planning approach within which to develop the legal, policy and institutional systems required to support the sustainable utilization of dryland ecosystem resources. The overall rationale for the PRC to adopt the approach is that IEM serves as the basis for greater efficiency and sustainability of the use of water, soils, vegetation and other ecosystem resources (ADB 2005).

### **IEM AND THE LAW**

The concept of IEM as referred to above, has been applied in environmental law-making since the early 1990's. However, while the concept does not appear to be applied in its entirety within one single piece of legislation, there are many examples where IEM appears within a broad system of law to manage a number of environmental issues within a State, or to manage a major ecological system such as river basins.

### **Legal Aspects of IEM**

The definition of IEM provides insight into what type of legislative materials are relevant to manage this concept. When broken down into its individual components, each single component can be used as an indicator of the specific types of laws and legal instruments required to implement IEM within a “legal system” - where a legal system is defined as the comprehensive body of laws and legal materials necessary to implement and manage IEM. A legal system needs to provide for a holistic approach to address the linkages between ecosystem functions and services and the human social, economic and production systems.

It should also recognize that people and the natural resources they depend upon, directly or indirectly, such as land, water, and forests, are inextricably linked. Rather than treat each resource in isolation IEM offers to the PRC the option of treating all elements of ecosystems together to produce multiple benefits. For a law to be effective in controlling land degradation, or some aspect of it, must contain certain types of legal and institutional 'elements' (IUCN 2002, 2004).

## **LEGAL AND POLICY FRAMEWORKS**

The aim of Component 1 of the Project is to improve the capacity of the laws, regulations and policies of the six provinces/regions by introducing into the law and policy an IEM approach to combat land degradation. This is being achieved through the development of consistent and comprehensive legal and policy frameworks for each province/region. The ADB and GEF assists by working closely with PRC government legal experts. Each province/region has a specialist legal and policy team and a high level Legal and Policy Expert Advisory Group (L&PEAG) provides overall guidance and direction for the legal and policy improvements from the central level, and it is matched at the provincial/region level by equivalent LPEAGs.

### **Basis for change**

Extensive investigation into the legal system of PRC by recently completed studies has shown that the quality and performance of existing laws and policies for land degradation control can be improved, particularly by broadening their interests and responsibilities in consideration of natural ecosystem functions. For example, work undertaken during the preparation of the 2002 *National Strategy for Soil and Water Conservation* (ADB 2002) found that PRC's environmental laws and policies were not adequately equipped to deal with land degradation problems such as salinization, nutrient loss and loss of native perennial grasses. Similar legislative aspects were found in the *Strategic Planning Study for the Preparation of the Yellow River Law* (ADB 2004) which examined around 80 individual laws and regulations for flood control, water and soil conservation, water pollution prevention and control and water resources. In general, the current laws and policies relevant to land degradation lack many of the essential legal and institutional elements needed to enable them to recognize ecological problems, establish effective land management programs and targets, and enforce compliance standards. Hence considerable effort is needed to assess, review and revise these laws and policies in order to improve their capability to address the problem of land degradation and to bring them up to the required standard.

Of critical concern is the need for laws that recognise rural property rights, provide security of land tenure, and protect the rights and interests of individuals with regard to access to, and use of, land and water resources. There is also a need to substantially improve the institutional capacity at the central and provincial levels to understand the role of such laws and policies, and to be able to improve the policy and regulatory framework, as part of a comprehensive IEM strategy for improved ecosystem management within the country's dryland areas. Some of the problems found include:

- The substantial duplication between key national laws and policies.

- Lack of adequate implementation guidelines for the legislation.

- The implementation of regulations and policy at the provincial/ region level can be improved.

There are insufficient elements in the national and provincial/region laws and regulations to effectively manage the different types of land degradation using an ecosystem approach.

### **Using best international experience**

A key aspect under the PRC-GEF Partnership Project is that it provides a facility to introduce into PRC the most up to date and best international environmental law experience available for land degradation control and ecosystem management. The international and domestic environmental law specialists for the Project have worked with the provincial legal experts to adapt the method prepared by the IUCN Commission on Environmental (IUCN) for improvement of land degradation law as the basis of the development of the six provincial/region legal and policy frameworks. The IUCN Method was developed over a 10 year period and has been rigorously tested in many regions of the world which experience severe land degradation and desertification problems, including Thailand, the Philippines, Laos, Brazil, the Balkan countries, Kyrgyzstan, Tajikistan, and Iceland. The IUCN Method was initially introduced into PRC in the ADB Technical Assistance project (TA) *National Strategy for Soil and Water Conservation* in 2002, followed by the TA *Study of a Law for the Yellow River Basin* 2004 (ADB 2002, ADB 2004). In these studies, considerable work was undertaken to describe the national and provincial legislative and policy system for sustainable land and water management, its consistency and capacity to achieve sustainable land and water management and how well it complied with national environmental strategies and various international environmental conventions and agreements.

An important aspect of the IUCN Method is that it has been developed and tested by a cooperative partnership between internationally recognized scientists and environmental lawyers working closely together under the IUCN Commission on Environmental Law program (SCAPE 2005).

### **IUCN method**

The IUCN Method which is being applied to the six PRC western provinces/regions has developed from the detailed assessment of hundred's of international and national natural resource laws worldwide, to find the most appropriate "core" legal elements that should appear in an ideal law for land degradation control. An element is defined as a principle or suggested rule or direction of conduct that may be used in its existing form or modified to perform the role of a legal mechanism (such as a direct statutory function or an administrative function.), or as a legal principle (a rule of conduct) in legislation. An element can also be used singularly, or in combination with other legal mechanisms or principles, to enable or invoke a legally based action to achieve sustainable land use. The 17 key principal legal elements selected are under-pinned by the concept of sustainable land management, and they include: the general intent, jurisdiction, responsibility, goals and objectives, duty of care, institutional, policy, administrative structures, definitions, education, research and investigation, land planning, land management, community participation, financial mechanisms, dispute resolution, and enforcement (IUCN 2002, IUCN 2004, IWMI 2003).

The IUCN Method is applied to establish the capacity of an existing law or regulation to manage land degradation problems. The "capacity" is determined by the number and type of essential legal and institutional elements present within the laws, in a format that enables implementation of IEM, and with the legal, administrative and technical capability to take

some form of positive action for LD control. In some cases, the capacity may be direct and obvious. In other places, it will exist in a format that enables some form of indirect action. Capacity is represented in the form of legal rights, the type of legal mechanisms, and importantly, the number and comprehensiveness of the essential elements identified above.

### **Nine areas of law**

Under the PRC-GEF Project, the IUCN Method is applied to 9 main areas of law: Grassland Law, Agriculture Law, Desertification Law, Forestry Law, Environment Protection Law, Environmental Impact Appraisal Law, Water Law, Water and Soil Conservation Law; and Land Administration Law (in total, around 200 individual laws and regulations will be assessed for the six provinces/regions). It has been necessary to expand the 17 elements into 20 core elements to adequately cater for the terminology of the PRC legal system and to ensure that the IEM concept could be effectively accommodated within Chinese law and meet the special features of the PRC legal system. The outcome of the detailed assessment and analysis of the provincial/region laws and regulations presents a profile of the various weaknesses, strengths and capabilities of individual laws and regulations for land degradation control. It is also used to compare the relative capabilities between two or more laws. This type of information is then used to recommend improvements to an existing law or introduce a new law or area of law (Hannam Qun Du 2004).

As most IEM issues are multi-factorial (i.e. many include a sociological, a legal and a technical component), generally more than one piece of environmental legislation, along with detailed regulations, will be needed to manage each individual LD issue. In this regard, the 12 principles of IEM as advocated by the IUCN have been added to the method specially adapted to PRC. A variety of types of legal and institutional elements and mechanisms may also be required. This reinforces the necessity to analyse the existing environmental legislation to ascertain current management regimes and their interactions. The information generated by such an analysis may also be used as a guide as to the type of legislative and institutional elements that can be included within a new legislative regime that may be drafted for each level of LD control.

### **Benefits to PRC of an improved legal and policy framework**

A Legal and Policy Specialist Team has been formed in each of the six provinces/regions to work closely with the international and domestic legal consultants to prepare the frameworks. The benefits of the improved frameworks include:

- A management mechanism to give the provinces/regions practical information and guidance to understand, develop and strengthen the capacity of the legal and policy system to control land degradation.

- It will establish a procedural basis to introduce integrated ecosystem management into the law and policy making for the future.

- The framework is a mechanism to improve coordination between the legal and technical decision-making functions for land degradation control.

- The framework will form part of the 11th 5 Year Plan of each province/ region.

### **The legal frameworks and the overall provincial strategy for LD control**

One of the main benefits of the environmental lawyers and scientists working together under the PRC-GEF Partnership is the development of an overall strategy for controlling land degradation and introducing IEM into the everyday technical and administrative functions of the provinces. The improved legal and policy frameworks will make a substantial contribution

to the formulation and improvement of the following strategic aspects of provincial/region management:

An understanding of the aims and objectives of improved dryland ecosystem management.

Development of comprehensive dryland management policy making procedures.

Improving ecological and technical standards for land management.

Setting targets for land degradation control.

Setting priority land management programs.

Formulating methods for promoting community participation.

Establishing the supporting role of international agencies.

Developing and implementing improved financing arrangements.

## **CONCLUSIONS**

It is still early days in the PRC-GEF Partnership Project but already the benefits are showing. The scientists, ecologists and legal experts are working together reviewing and selecting laws for detailed assessment, making joint field investigations, discussing technical issues and legal and policy solutions for more effective land degradation control.

The experience gained by PRC in the development of the legal frameworks is being fed back into the international environmental law system through close working relationships with the IUCN Commission on Environmental Law and other international development programs such as the Global Environment Facility, the World Bank and the UNEP.

Through the PRC-GEF Partnership legal framework development, the PRC is currently leading the world in the approach to environmental law improvement for land degradation control.

## **REFERENCES**

ADB (Asian Development Bank) 2002. *National Strategies for Soil and Water Conservation* (TA 3548). Manila.

ADB (Asian Development Bank) 2004. *Strategic Planning Study for the Preparation of the Yellow River Law* (ADB 2004) (TA 3708). Manila.

ADB (Asian Development Bank) 2004. *Financial Arrangement for a Proposed Global Environment Facility Grant and Asian Development Bank Technical Assistance Grant to the People's Republic of China for the Capacity Building to Combat Land Degradation Project*. TAR: PRC 36445. Manila.

ADB (Asian Development Bank) 2005. *Integrated Ecosystem Management for Drylands of the Peoples Republic of China*. Draft Discussion Paper. PRCM Beijing.

Hannam I.D. and Du Qun, 2004, *Environmental Law Reform to Control Land Degradation in the People's Republic of China: A view of the legal framework of the GEF-PRC Partnership Program*. 2<sup>nd</sup> Colloquium and Collegium of IUCN Academy of Environmental Law 4-8 October 2004. Nairobi, Kenya.

IUCN (The World Conservation Union) 2002. *Legal and Institutional Frameworks for Sustainable Soils: A Preliminary Report*. IUCN, Gland, Switzerland and Cambridge, UK.

IUCN (The World Conservation Union) 2003. *Subsidiary Body on Scientific, Technical and Technological Advice*.

IUCN (The World Conservation Union) 2004. *Drafting Legislation for Sustainable Use of Soils: A Guide*. IUCN, Gland, Switzerland and Cambridge, UK.

IWMI (International Management Water Institute) 2003. *A method to identify and evaluate the legal and institutional framework for the management of water and land in Asia: the outcome of a study in Southeast Asia and the People's Republic of China*. Research Report 73. Colombo, Sri Lanka: International Water Management Institute.

SCAPE (Soil Conservation and Protection for Europe) 2005. *Strategies, Science and Law for the Conservation of the World Soil Resources*. AUI Publication No 4.