

## CHAPTER 5 PROPOSED FINANCING PLAN

### 5.1 Phased Approach

According to analysis by the Asian Development Bank and the World Bank specialists,<sup>1</sup> the PRC's costs associated with environmental degradation are estimated at 10% of the country's annual Gross Domestic Product (GDP), as compared with around 5% for East Asia and the Pacific region. Partnership building between development partners and domestic stakeholders will emerge through a constructive dialogue to enhance understanding of the strategic and policy framework underlying the serious transboundary problem that DSS presents and the heightened pressure from neighboring countries to mitigate the problem. The emergence of an investment platform to translate that framework into concrete investments in the DSS source areas is one of the expected outcomes of the regional cooperation promoted by the RETA 6068.

Traditionally the management of ecosystems has been the responsibility of the affected countries, with external financial support mostly channeled through bilateral programs or the executing agencies such as the World Bank, the FAO, the UNDP, and the ADB. Transboundary concerns like DSS, where the origin and impacts of a phenomenon may fall in different countries, requires greater efforts for international cooperation. The lack of predictable, sustainable and sufficient financial resources continues to impede efforts by countries to implement the UNCCD and combat desertification effectively.<sup>2</sup> Efforts need to be strengthened to explore existing national and international financial mechanisms to ensure a steady flow of funding required in the fight against desertification, through publicly-funded projects and programs. New funding mechanisms are needed, including private sector and non-governmental sources and other innovative means of securing the financial resources.

Some innovative sources and financial mechanisms that may be explored include:

- Clean Development Mechanism (CDM);
- investment by industry in ecosystem restoration;
- ecotourism;
- incentive measures and market based instruments; and
- debt relief initiatives, and so forth.

CDM, is an initiative arising from the Kyoto protocol on reduction of greenhouse gases. CDM has potential for application in some areas in the PRC and Mongolia. Whilst carbon sequestration<sup>3</sup> is the major thrust, there is provision for biomass fuels and other land-based measures to qualify for support under the CDM. There is an opportunity to test some land management initiatives in the demonstration sites that specifically aim at assessing the potential for CDM support in the expanded program that comes with scaling up from the demonstration sites.

The project RETA 6068 and follow up projects will provide opportunities to explore the tradeoffs between ecological restoration and development endeavors in DSS source areas,

<sup>1</sup> *China Daily*, July 3, 2004.

<sup>2</sup> "Mobilizing Finance for Combating Desertification," a workshop organized as part of the First Inter-Regional Session of the Global Biodiversity Forum on sustainable approaches for drylands ecosystem, La Havana, Cuba, 22-24 August 2003; <http://biodiversityeconomics.org/finance/030822-00.htm>

<sup>3</sup> Drylands can sequester significant amounts of carbon see Squires, V. and Glenn, E. "Carbon sequestration in the drylands: an agenda for the twenty-first century" World Atlas of Desertification. Edward Arnold/UNEP (2<sup>nd</sup> ed) pp.140-143 and Squires, V.R. (1998). Dryland Soils: their potential as a sink for carbon and as an agent in mitigating climate change. *Advances in GeoEcology* 31: 209-215.

and generate useful experiences in identifying sustainable options for local rural communities that can ensure livelihood security while improving the ecological functions of DSS source areas and pathways. In particular, the conceived demonstration projects will likely promote:

- best practices on how to balance ecosystems with requirements for improving livelihoods in DSS source areas and pathways;
- obtaining better understanding of the merit of the ecosystem approach as a tool to guide development of policies and governance for DSS source areas;
- the value and importance of integration of local knowledge and equity including gender equality in developing and implementing DSS prevention & control measures; and
- technical and organizational capabilities and, more importantly, partnerships among the government agencies, industries, and civil societies and individuals of the Northeast Asian countries and participating international organizations; these capacities and partnerships will be extremely valuable for achieving ecosystem restoration and livelihood requirements in DSS source areas, in the sense that they will serve as catalysts for developing specific financing arrangements to implement pre-determined investment strategies.

The importance of prevention (e.g. the interventions that could help prevent the land from degrading) needs to receive considerable attention. Additional analysis/prediction of the socioeconomic conditions in the selected project areas over the planned intervention period would be helpful and should be part of the project design when the actual sites are chosen. Special consideration should be given to improving water resources management and energy resources management in rural areas.

The investment needs to be developed at two levels. As part of the regional master plan to combat DSS, a phased approach is required to implement a long term strategy that encompasses:

- Monitoring, early warning and forecasting of DSS
- Prevention and control of DSS in source areas
- Mitigation of impacts in downstream locations

At the second level there is the need to finance the implementation of the demonstration projects that comprise the core of the investment strategy.

Prevention and control of DSS is a long-term endeavor that requires firm commitment and massive investment. The Investment Strategy needs to be implemented in a phased manner, step by step, through pilot demonstration projects to identify the best practices and the most appropriate and effective mitigation measures before promoting their replication.

The nine demonstration projects proposed for development in the DSS source areas will cost considerable amount of money. Funds must be mobilized. There are several potential funding sources:

- Grants from bilateral and multilateral agencies (e.g., GEF)
- Government – central and local
- Investments by corporations
- Private sector partnerships
- Public participation - subscriptions, donations

Because of the high cost and the need to get trained personnel and mobilize physical and financial resources it is proposed that a phased approach be devised. Phasing is at two levels:

- Give priority to some focus areas

- Prioritize actions/measures to be evaluated in each selected Focus area

The Investment Strategy should highlight the importance of capacity building and raising of public awareness because success of the Investment Strategy will require not only physical investment, but also public participation that, in turn, requires changes in the mindset of people. Activities designed to improve capacity and raise awareness should be in the first phase of the implementation.

## 5.2 Financing Plan for the PRC and Mongolia Demonstration Project

The scale of the demonstration projects is flexible and can be tailored to the available funds. Preliminary estimates for each focus area range from US\$ 3 million to over US\$22 million but not all of the money needs to be available at one time. Some of the proposed project components can be packaged and funded as stand-alone measures and some are candidates for private sector partnerships. Among the donor community there may be project components that more closely fit their current aid program. A possibility is to establish a regional fund dedicated to the prevention and control of DSS, which could receive contributions from the participating countries (including private corporations, international agencies or organizations). Government donations to the fund could be used as the seed money and could serve as a vehicle to mobilize additional funding support from other sources, public or private.

Every demonstration project has its special capital costs. A major element of each site must be the installation of appropriate monitoring systems whose intent is to measure any reduction in frequency and intensity of DSS that can be attributed to the intervention being tested. The monitoring system will vary between sites but an extra 1% can be added to the cost estimates to provide for it.

There are a few possible funding sources for DSS investments, to wit:

- **Internal sources.** There is budget allocation for environment management in different levels of the national government but not much is available for DSS investment in the PRC and Mongolia. Likewise, internal resources can be tapped from the domestic private sector, communities, and small stakeholders of the project area.
- **Bilateral Channels.** The bilateral donors such as Japan typically concentrate on funding pre-project activities and pilot project. Bilateral assistance is most often given as grants. The bilateral support from donors has an important role in insuring that the projects are well documented and well structured through support for feasibility studies and pilot projects. Without the combination of bilateral assistance for feasibility studies and pilot projects with international financing of subsequent larger scale implementation many projects with important environmental benefits would not be implemented or their scope would be significantly reduced.
- **International Financing Institutions.** Apart from bilateral donors, a number of the international financial institutions are active in connection with the financing of environmental projects in the region. The most important actors are the Asian Development Bank (ADB), the World Bank, and the European Union. There is a well-developed cooperation between the Government of Mongolia and the international financial institutions. The large international financing institutions such as the World Bank and ADB typically provide long-term loans financing large-scale investment projects. However, governments are cautious on increasing their foreign debt and are least likely to borrow funds for the purpose of combating DSS.

- **Global Environment Facility.** GEF considers DSS as a subset of land degradation. However, there is a hope that GEF would consider Mongolia's case for funding because Mongolia has never received any financing from GEF for OP 15<sup>4</sup>. Everybody agrees that land degradation is becoming worse and worse in Mongolia. The PRC, on the other hand, is already a partner of GEF OP 12<sup>5</sup> on Land Degradation in Dryland Ecosystems.
- **Private Sector Involvement.** It should be expected that the opportunities for mobilizing additional resources for environmental investments through involvement of the private sector in a Public-Private Partnership. It should increasingly be tested in both DSS affected countries and source countries in the coming years. The Government of Mongolia will be following these developments and seek to contribute constructively to ensure that such new cooperation models are implemented in a way that secures the public interest. The need to mobilize additional resources for investments in DSS prevention and mitigation leads governments and international financing institutions to consider new forms of cooperation where the private sector is involved in a Public-Private Partnership. In conclusion, both the PRC and Mongolia should mobilize significant internal and external resources for investments, which are necessary for mitigating DSS impacts in the region. .

Table 5.1 presents a possible mix of funds for indicative components of a sample pilot project for DSS prevention and control.

**Table 5.1 Indicative Components and Costs for Single Pilot Site (US\$ 000)**

Components	GEF	Government In-kind Contribution (central & local)	Others (bilateral donors, NGOs, private sector, etc.)
<b>Land-based activities</b>	<b>2,000</b>	<b>600</b>	<b>1,400</b>
rangeland improvement	800	250	600
livestock management	800	250	600
forestation	300	50	100
other	100	50	100
<b>Social development</b>	<b>1,600</b>	<b>500</b>	<b>1,000</b>
income generation	1,000	300	600
education	50	25	50
training/ extension	50	25	50
women participation	50	25	50
health	50	25	50
infrastructure	400	100	200
<b>Management</b>	<b>400</b>	<b>100</b>	<b>400</b>
project management	300	50	300
monitoring	50	25	50
evaluation	50	25	50
<b>Total disbursement</b>	<b>4,000</b>	<b>1,200</b>	<b>2,800</b>

Since a phased approach is more viable to implement, the financing plan should strictly stick to the phased approach. The project should have three phases for the next 10 years (see Table 5.2).

<sup>4</sup> GEF's Operational Program on Sustainable Land Management, which includes creating appropriate enabling environment, institutional strengthening, and investments.

<sup>5</sup> GEF's Operational Program on Integrated Ecosystem Management.

**Table 5.2 Phases of DSS Prevention and Control Program**

<b>Phases and Proposed Activities</b>	<b>Funding Needed (US\$ 000)</b>	<b>Funding Sources<sup>1/</sup></b>
<b>Phase I. 2006-2007</b>		
1. Feasibility studies	1,000	GIC, BS, PS
2. Capacity building	8,000	
3. Institutional development and policy framework	500	
4. Public awareness	500	
Subtotal	10,000	
<b>Phase II. 2008-2010</b>		
1. Implementation of pilot projects (Zamiin-Uud and Erinhot)	5,000	GEF, GIC, PS, BS
2. Monitoring (equipment)	1,600	
Subtotal	17,600	
<b>Phase III. 2010-2015</b>		
1. Implementation of projects in three dust source areas based on the feasibility studies and lessons learnt from pilot projects.	24,000	GEF, GIC, PS, BS
2. Monitoring (equipment)	240	
Subtotal	24,240	
<b>Grand Total</b>	<b>40,840</b>	

1/ GIC – Government in-kind contribution; GEF – Global Environment Facility; BS – Bilateral sources; PS – Private Sector.

As part of the regional master plan to combat DSS there is a need to replicate and expand the treated area. The “package” of measures/actions that are proven to reduce the frequency and severity of DSS should be scaled up to involve an area more commensurate with the size of DSS source area.

As a next step to the realization of any of the demonstration projects, a feasibility study is warranted. It is one of the proposed activities in the first phase of implementing the DSS prevention and control program. It is here that the sustainability of the demonstration projects will be explored through cost recovery mechanisms.