



**Sustainable Land Management  
in the High Pamir and Pamir-Alai Mountains (PALM)  
An Integrated and Transboundary Initiative in Central Asia**

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**GEF/UNEP/UNU  
SUSTAINABLE LAND MANAGEMENT IN THE HIGH PAMIR AND PAMIR-ALAI  
MOUNTAINS**

**METHODOLOGICAL RESEARCH GUIDELINES FOR LEGAL TASK FORCES  
FOR ANALYSING THE CAPACITY OF LEGAL, POLICY AND INSTITUTIONAL  
ASPECTS OF SUSTAINABLE LAND MANAGEMENT IN THE HIGH PAMIR AND  
PAMIR-ALAI MOUNTAIN ENVIRONMENT**

**PREPARED  
BY**

**Australian Centre for Agriculture and Law  
University of New England, Armidale 2351  
Australia**

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## TERMS OF REFERENCE

The principal research activity of the University of New England (UNE) under the GEF/UNEP/UNU Sustainable Land Management in the High Pamir and Pamir-Alai Mountains Project (PALM) is the mobilization and training of the national Legal Task Force experts. In particular, this includes the development of the Methodological Research Guidelines (MRGs) for the Legal Task Forces and a detailed Research Plan for the Legal Task Forces to “establish the legal and institutional requirements for an effective Regional Natural Resource Management Governance Framework”.<sup>1</sup> Implementation of the Methodological Research Guidelines by the national Legal Task Forces will enable UNE to achieve its principal responsibilities under the Institutional Contractual Agreement with United Nations University (Bonn), as expressed in the Research Work Plan and deliverables.<sup>2</sup>

The Legal Task Forces have the responsibility to implement the Methodological Research Guidelines. UNE will support and coordinate the research and the development of various reports by the Legal Task Forces and monitoring and reporting of these, as follows:

Research Activity	Output
1. Mobilization and training of national legal task force experts	<ul style="list-style-type: none"> <li>• TORs for national legal and policy experts;</li> <li>• Methodological Research Guidelines for Legal Task Forces;</li> <li>• Detailed research plan of legal task forces;</li> </ul>
2. Support and coordination in developing baseline reports on the principles for creating an improved legal and regulatory framework environment for SLM in the Pamir-Alai mountains	<ul style="list-style-type: none"> <li>• Report on the principles for the creation of trans-boundary protective laws;</li> <li>• Report on the principles for the creation of an effective regional governance regime for natural resource management;</li> </ul>
3. Support and coordination in developing critical issues analysis of the specific transboundary legal and regulatory environment for SLM in the Pamir-Alai mountains.	<ul style="list-style-type: none"> <li>• Issue analysis of the specific trans-boundary laws for both countries;</li> <li>• Issue analysis of the specific regional natural resource use and management governance regime and structures;</li> </ul>
4. Support and coordination in developing recommendations for improving the enabling legal and regulatory framework for SLM in the Pamir-Alai region	<ul style="list-style-type: none"> <li>• Recommendations for the creation of a trans-boundary protective law;</li> <li>• Recommendations for the establishment of an effective regional natural resource use and management governance regime</li> </ul>
5. Dissemination of outputs and results	<ul style="list-style-type: none"> <li>• Presentation of findings and recommendations at PALM Project Regional Meeting;</li> <li>• Presentation of findings and recommendations to the national governments in Tajikistan and Kyrgyzstan;</li> <li>• Publication of findings and recommendations</li> </ul>
6. Assessment of the project's experience with developing recommendations for improving the enabling legal and regulatory framework for SLM in the Pamir-Alai region	<ul style="list-style-type: none"> <li>• Terminal report on lessons learnt and recommendations for follow-up, up-scaling and replication</li> </ul>

<sup>1</sup> Institutional Contractual Agreement between United Nations University and University of New England, March 2009

<sup>2</sup> As attached to the Institutional Research Agreement, Annex 1 – Work Plan, Deliverables and Timetable

## INTRODUCTION

1. Achieving sustainable land management (SLM) in the High Pamir and Pamir-Alai Mountains presents a significant challenge for Kyrgyzstan and Tajikistan. Ecosystems in this mountain region are degrading, which is of significant concern to the sustainable production of food, maintenance of livelihoods of rural land users and the quality and biodiversity of natural resources. The objective of the PALM Project is to achieve an enabling environment for land users and institutions to adopt SLM practices that reduce land degradation, improve the management of land and water resources through a participatory approach and establish and effective transboundary mechanism for effective cooperation and coordination in natural resource utilization.<sup>3</sup>
2. The benefits of capacity building in environmental, legal, policy and institutional systems to achieve SLM in Central Asia are recognized as: to improve the knowledge, understanding and capability of environmental law, policy and institutions and to manage the natural environment. It is now widely accepted that the development of an effective participative Regional Natural Resource Management Governance Framework, including national laws necessary to implement transboundary law, is an essential part of this process. Such a framework will make a substantial contribution to achieving the common concerns and agreed priorities for SLM in the Pamir-Alai Mountains.
3. Law and policy reform, through the introduction of new governance frameworks or upgrading existing ones is seen as a priority for SLM. They are perceived as a fundamental tool for achieving integrated natural resources management, improving participatory processes, helping establish markets, equitable pricing of commodities, building partnerships, and protecting the natural environment. In the High Pamir and Pamir-Alai region, areas of intensive agricultural and pastoral land use experience severe water and soil degradation, resulting variously in water and soil salinization, decline of water quality and degradation of the terrestrial and aquatic ecosystems. It is established that these problems hit first and hardest the people in the region who already lead the poorest livelihoods as well as threatening the resource base on which food production depends. A comprehensive Regional Natural Resource Management Governance Framework based on SLM is an essential component to solving and managing these problems. The Framework must reflect institutional capacities and act as a mechanism to integrate SLM in a transboundary or “common boundary” resource management instrument between Kyrgyzstan and Tajikistan.<sup>4</sup>
4. The Methodological Research Guidelines set out the approach to identify and evaluate the existing legal, policy and institutional framework for SLM in the High Pamir and Pamir-Alai mountain environment of Kyrgyzstan and Tajikistan and to guide reform. The approach outlined in the Guidelines can identify the capacity of relevant local, national, regional and international legislation and policy for SLM relevant to the Pamir region of the two countries. In doing so, it raises several opportunities for capacity building and reform in the region. Application of the Guidelines will highlight the relationships and interdependence between the principal levels of environmental law and policy applicable in the two countries: the international environmental law, regional environmental law, national and local environmental law.

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<sup>3</sup> GEF/UNEP/UNU *Sustainable Land Management (SLM) in the High Pamir and Pamir-Alai Mountains (PALM), An Integrated and Transboundary Initiative in Central Asia*, June 2008

<sup>4</sup> See definitions in Module of these Guidelines; “*regional natural resource management governance framework: includes the national laws, policies and institutional requirements to implement sustainable land management and the transboundary law to manage natural resources of the High Pamir and Pamir-Alai mountain environment*”.

5. The application of the Guidelines in the High Pamir and Pamir-Alai region will make a significant contribution to the improvement of the understanding of the capacity of the legal, policy and institutional system for SLM in mountain regions in general.
6. The reports prepared under the GEF PDF-B Project should be reviewed as an introduction and background to the implementation of the Guidelines and for the preparation of the comprehensive Regional Natural Resource Management Governance Framework.
  - Hannam, I.D, 2006, *Synthesis Report: The Legal, Policy and Institutional Aspects of Sustainable Land Management in the Pamir-Alai Mountain Environment*, Sustainable Land Management in the High Pamir and Pamir-Alai Mountains, GEF PDF-B Project;
  - Hannam, I.D, 2006, *Transboundary Regulatory Frameworks and Institutional Arrangements: The Legal, Policy and Institutional Aspects of Sustainable Land Management in the Pamir-Alai Mountain Environment*, Sustainable Land Management in the High Pamir and Pamir-Alai Mountains, GEF PDF-B Project;

## **PART A – PURPOSE AND OBJECTIVE OF METHODOLOGICAL RESEARCH GUIDELINES**

### **A. PURPOSE AND OBJECTIVE OF GUIDELINES**

1. The purpose of the Methodological Research Guidelines is to provide Legal Task Force officials from Kyrgyzstan and Tajikistan with a practical tool to guide their research in achieving the objectives under the High Pamir and Pamir-Altai Mountains Project, to:
  - (i) Provide the Legal Task Forces with the basic methodological procedures to collect, review and analyse relevant policy, legislative and institutional aspects for SLM of the High Pamir and Pamir-Alai Mountains;
  - (ii) Build capacity of the national partners to undertake detailed analysis and interpretation of policy, legislative and institutional aspects and prepare recommendations to meet the overall objectives of the Pamir Alai Trans-boundary Strategy and Action Plan (PATSAAP).<sup>5</sup>
2. The overall long term environmental and development goal of the PALM Project is stated as *“to restore, sustain, and enhance, the productive and protective functions of the trans-boundary ecosystems of the High Pamir and Pamir-Alai Mountains, of Tajikistan and Kyrgyzstan, so as to improve the social and economic well-being of the rural communities and households utilizing the region’s ecosystem resources to meet their livelihood needs, while preserving its unique landscape and globally important biodiversity”*.<sup>6</sup>

### **B. BACKGROUND**

3. The Project Brief outlines the key physical, ecological and socio-economic aspects of the High Pamir and Pamir-Alai mountain environment that need to be considered in relation to relevant international environmental law and regional environmental law, and the national and local environmental law of Kyrgyzstan and Tajikistan.<sup>7</sup>
4. The strategic and institutional environment in which legislation and policy will operate for the SLM of the Pamir-Alai mountain area is outlined in the Project Brief in: Section 1.3 (‘Root Causes and Urgent Needs’), Section 2 (‘Full Project Rationale and Objectives’), and Section 3 (‘Expected Results and Outcomes of the Full Project’).
5. In this regard, the Methodological Research Guidelines are required by Legal Task Forces to:
  - Determine the capacity of the existing legal, policy and institutional system, including the development of transboundary law, to successfully implement SLM objectives and to help manage the ‘Threats’, and ‘Root Causes and Urgent Needs’ identified for the Project;
  - Identify the strengths and weaknesses of the existing legal, policy and institutional system and capabilities to determine where they can be improved, and to develop regional transboundary law, to meet the expected SLM outcomes of the Project as identified in the Inception Report.

### **C. APPROACH**

6. The Research Methodological Guidelines have been compiled from various sources including:

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<sup>5</sup> As outlined in Section II of Inception Report June 2007

<sup>6</sup> Inception Report p4

<sup>7</sup> See section 1.2 Project Brief, ‘Threats to the Pamir Mountain Region and their Regional Relevance’

- The method used to identify and evaluate the legal and institutional framework for the management of water and land in Asia (outcome of a study in Southeast Asia and the People's Republic of China),<sup>8</sup>
- Legal and policy frameworks to control land degradation in China prepared for Shaanxi, Gansu, Xinjiang, Inner Mongolia, Qinghai, and Ningxia in 2007, under the PRC-GEF Partnership on Land Degradation in Dryland Ecosystems Capacity Building Project;<sup>9</sup>
- Various reports prepared for UNDP Project "Strengthening Environmental Governance in Mongolia";<sup>10</sup>
- Relevant concepts and procedures from existing Transboundary instruments in different parts of the world;<sup>11</sup>
- Relevant concepts and principles from published materials concerning management of mountain environments;<sup>12</sup>

7. In preparing the Methodological Research Guidelines, appropriate modifications have been made to the methods referred to above, to ensure its effective application to evaluate the legislative, policy and institutional aspects of the High Pamir and Pamir-Alai mountain environment and the requirements for transboundary law. In particular, the Guidelines are designed to enable the Legal Task Force Teams to research issues raised in Sections 1.2, 1.3 and 2 of the Project Brief, from a SLM perspective.

8. The Methodological Research Guidelines take into account the objectives and aims of the PALM Project, and in particular to carry out research that will produce the outputs required from Component 1.2 for the High Pamir and Pamir-Alai Transboundary Strategy and Action Plan.

#### **D. SLM AND MOUNTAIN ENVIRONMENTS**

9. Physical forces in mountain environments affect the well being of inhabitants as well as people living in the lower part of the landscape. In a legal, policy and institutional context, mountain areas need to be viewed and understood as an organic system that is linked to the total environment. In this regard, the governance system for natural resource management of mountain areas must recognize their diversity, which has significant influence on local

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<sup>8</sup> Hannam, I.D. 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

<sup>9</sup> Hannam, I.D., 2008, *International Application of Legal Aspects of PRC-GEF Partnership Project*, International Workshop on IEM Approaches and Application, Beijing, China, 6-7 November 2008, Capacity Building in Combating Land Degradation

<sup>10</sup> Including Hannam, I.D., 2008, *Methodological Framework and Guidelines for Assessing the Capacity of Legal and Policy Aspects of Sustainable Management in Mongolia; an Approach to Identify and Evaluate the Existing Legal, Policy and Institutional Framework for Sustainable Management in Mongolia*. UNDP Project, Strengthening Environmental Governance in Mongolia; Nature-Future Fund Non-Governmental Organization, 2008, *Team Report of Analyses on Mongolian Environmental Policies and Fiscal Legislations*, Strengthening Environmental Governance In Mongolia; Hannam, I.D., 2008, *Assessment of Environmental Laws*, Final Report, UNDP Project Strengthening Environmental Governance in Mongolia

<sup>11</sup> E.g. Fall, J., 2007, 'Designing framework conventions to promote and support transboundary protected areas: Theory and practice from the Carpathian Convention,' In: *Biodiversity conservation and protected areas: The Italian and Ukrainian legislation*, Tamburelli, G, Milan, Italy: Giuffrè Editore; Tamburelli, G, 2007, 'Notes on the legal framework for sustainable management of transboundary protected areas', In: *Biodiversity conservation and protected areas: The Italian and Ukrainian legislation*, Tamburelli, G, Milan, Italy: Giuffrè Editore

<sup>12</sup> E.g. Sandei, 2007, 'International Partnership for Sustainable Development of Mountain Regions,' In: *Biodiversity conservation and protected areas: The Italian and Ukrainian legislation*, Tamburelli, G, Milan, Italy: Giuffrè Editore; Fodella, A, and L. Pineschi, 2002, 'Environmental Protection and Sustainable Development of Mountain Areas', in Treves, T, I Pineschi, and A. Fodella (Eds), *International Law and Protection of Mountain Areas*, Giuffrè Editore, Milano

climate, soil fertility, vegetation, slope stability, and accessibility. Several "region-specific" geographic definitions may be needed.<sup>13</sup>

10. The PALM Project focuses on that part of the High Pamirs and Pamir-Alai shared by Tajikistan and Kyrgyzstan. The Pamir Mountains cover about 50 per cent (some 70,000 sq km) of the territory of Tajikistan and the Pamir-Alai range constitutes the southernmost part of Kyrgyzstan. This region is highly vulnerable to land degradation and natural processes such as landslides and mudflows, with significant consequences for the densely populated southern area. In recognition of the need for protecting the unique and fragile environment in the High Pamirs and Pamir-Alai region formed by the extreme bio-physical conditions, high altitudes (3,000 to 7,400 meters), and the special arid to sub-humid climatic regime, both Tajikistan and Kyrgyzstan have undertaken to protect this mountain environment within a regional transboundary protected area management framework. The causes of land degradation in this region are linked to changes in rural livelihoods that have resulted from socio-economic and political developments in the two countries over the past decade. Overexploitation and inappropriate land management have led to land degradation.
11. For the purposes of these Methodological Research Guidelines, the term "mountain environment" is taken to mean:

"The combination of physical, ecological and human attributes that characterize a particular part of the landscape as a mountain area. It is a generic term that conveys an understanding of variability, and that various specialized approaches are required to the development of legal, policy and institutional systems to protect and manage the unique and diverse environmental and human conditions of a mountain area".<sup>14</sup>

### **The concept of SLM and mountain environments**

12. The concept of SLM" is an appropriate framework to protect and manage the mountain environment. Many bilateral and multilateral environmental agreements introduced in the past two decades refer to the concept of SLM and encourage States to prepare regional and national conservation strategies to address environmental degradation and resource depletion. For example, the concept of SLM is referred to in: the *World Charter for Nature*; the *World Commission on Environment and Development*; *Caring for the Earth*; the *Rio Declaration on Environment and Development*; and *Agenda 21*. It is clear from these strategies that a variety of land management programs, environmental law and policies, institutional arrangements and educational initiatives are necessary to successfully implement a goal of SLM.
13. This raises some important considerations for the High Pamir and Pamir-Alai mountain environment. SLM has been interpreted in many ways in various global environmental management strategies, and some regions have developed guidelines to manage land under the SLM framework. SLM has been summarized as "*land management systems that combine technologies, policies and activities aimed at integrating socio-economic principles with environmental concerns to satisfy the five pillars of sustainable land management*". The five pillars are:
  - (i) To maintain or enhance production;
  - (ii) To reduce the level of production risk;

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<sup>13</sup> Ives, J.D., B. Messerli and E. Speiss, 1997, 'Mountains of the World - A Global Priority', in Messerli, B, and J.D. Ives, (eds) 1997, *Mountains of the World, A Global Priority, A Contribution to Chapter 13 of Agenda 21*, The Parthenon Publishing Group, New York

<sup>14</sup> As defined in Hannam, I.D. 2002, *Legal and institutional frameworks for the sustainable management of mountain environments*, International Conference', Natural and Socio-economic Effects of Erosion Control in Mountainous Regions. Faculty of Forestry, Belgrade University

- (iii) To protect the potential of natural resources and prevent degradation of soil and water quality;
- (iv) To be economically viable; and
- (v) To achieve social acceptability.

14. A comprehensive Regional Natural Resource Management Governance Framework, based on SLM, for the Pamir-Alai mountain environment, will require the input and cooperation of many disciplines and the experience of many experts under the Project's PATSAP process.

## **E. LAW AND POLICY FOR MOUNTAIN ENVIRONMENTS**

15. Despite increased attention since the United Nations Conference on Environment and Development in 1992 on the need for reform, examples of departments, programs or legislation that deal with mountain issues in an integrated way are still rare, especially where the concept of protected areas is considered.<sup>15</sup> Improving the protection of a mountain environment by including effective legal and policy means is a globally recognized priority.<sup>16</sup> However, few studies have been undertaken to review the effectiveness of law and policy for the management of these areas and develop a plan of action for their improvement. It has been concluded that despite their importance throughout human history and their wealth of resources, mountains have only recently begun to attract the attention of political decision-makers and socio-economic planners. The *Alpine Convention* of 1991 was the first transnational agreement relating to a mountain range and the first national laws in this area were passed only a few years before.<sup>17</sup>

16. The PALM Project recognizes that specific mountain law and policy is still in its infancy and that there are few mountain-specific legal instruments currently in force at the national level.<sup>18</sup> In this regard, the Methodological Research Guidelines set out a procedure to investigate the legal, policy and institutional systems of the two countries and to use the outcome of this process as a means to define a Regional Natural Resource Management Governance Framework for the mountain area within the SLM framework. This is a very important step for the region and global mountain environments in general.

17. The preliminary investigation carried out under the GEF PDF Project indicates that, in general, the existing environmental law and policy of Kyrgyzstan and Tajikistan covers a wide range of environmental interests relevant to the Pamir-Alai region but limited attention is given to specific mechanisms for the protection of natural resources and ecosystems particularly from the effects of land degradation.<sup>19</sup> This study found:

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<sup>15</sup> UNCED 1997; Sandei, P.C, 2007, 'International Partnership for Sustainable Development of Mountain Regions', in, (Ed) Gianfranco Tamburelli, *Biodiversity Conservation and Protected Areas*, Istituto di Studi Giuridici, Internazionali; Gillespie, A, 2006, 'Obligations, Gaps, and Priorities within the International Regime for Protected Areas', *Georgetown International Environmental Review*, 19:1, 1-32

<sup>16</sup> Messerli, B, and J.D. Ives, (Eds) 1997, *Mountains of the World, A Global Priority, A Contribution to Chapter 13 of Agenda 21*, The Parthenon Publishing Group, New York.

<sup>17</sup> 1991 Convention concerning the Protection of the European Alps; Burhenne, W.E, 2004, 'The Convention for the Protection of the Alps and its Protocols: Evaluation and Expectations', in Treves, T, L. Pineschi and A. Fodella (Eds), *Sustainable Development of Mountain Areas, Legal Perspectives Beyond Rio and Johannesburg*, Giuffrè Editore, Milano

<sup>18</sup> Fodella, A., and L. Pineschi, 2000, *Environment Protection and Sustainable Development of Mountain Areas, A Preliminary Report*, Centro Internazionale Su Diritto, Società Economica

<sup>19</sup> See Hannam, I.D, 2006, *Synthesis Report: The Legal, Policy and Institutional Aspects of Sustainable Land Management in the Pamir-Alai Mountain Environment*, Sustainable Land Management in the High Pamir and Pamir-Alai Mountains, GEF PDF-B Project

- Important natural resource management activities such as resource utilization and protection of the environment, sustainable management of ecosystems and prevention of land degradation are poorly dealt with;
- Moreover, at the regional and local level, regulations are inadequate and poorly enforced;
- Land tenure arrangements in the Pamir-Alai region are often uncertain and land use rights for rural communities are insufficient to safeguard a long-term perspective on natural resource conservation and protection;
- The land use decision-making systems and rural land management activities for the Pamir-Alai region are not effectively linked within the current central and region environmental legislative and policy system;
- The institutional capacity to understand and implement changes to the legal, policy and regulatory framework for a SLM approach is very limited, particularly at the region level.

It also found that there are very few effective mechanisms at the central or regional levels for Kyrgyzstan and Tajikistan to coordinate the institutes and sector agencies in SLM efforts, and there are no 'common' regional rules to ensure uniformity in approach to the management of the Pamir-Alai as a distinct biogeographical and ecological unit.<sup>20</sup>

- Within each country, overlaps exist between various organizations in their administrative, legislative and policy responsibilities for land management.
- As the national-based current law and policy framework does not provide adequate support to integrated land use management, and without the benefit of an effective "common boundary" transjurisdictional agreement, this makes achievement of land use and conservation goals in the Pamir-Alai region almost impossible.

## **F. CASE STUDIES**

18. To support the implementation of the Methodological Research Guidelines, various examples are drawn from the information available on legal, policy and institutional frameworks in the Asian region and other relevant parts of the world. In this regard, various extracts of individual case studies form an important part of the Methodological Research Guidelines - for practical instruction and capacity building purposes as well as to produce the outcomes necessary under Component 1.2 for inclusion in the PATSAP process. A detailed examination of the legal, policy and institutional characteristics for SLM in Asia (e.g., China, Laos, Philippines, Bangladesh) and other regions of the world (e.g., Australia, New Zealand, South Africa, Iceland, Balkan countries) provide a number of important outcomes that are relevant to the PALM Project objective, including:

- (i) The relative capability of legislation, policy and institutions to achieve SLM;
- (ii) Important relationships between legislation, policy and institutions;
- (iii) Characteristics and abilities of institutions to manage policy and legislation for SLM.

## **G. ROLE OF INTERNATIONAL AND REGIONAL ENVIRONMENTAL LAW AND POLICY INSTRUMENTS**

19. Kyrgyzstan and Tajikistan have ratified various international treaties, including the Convention to Combat Desertification (CCD), Convention on Biological Diversity (CBD) and

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<sup>20</sup> See Breu, T and Humi, H, 2003, *The Tajik Pamirs: Challenges of Sustainable Development in an Isolated Mountain Region*, Berne, Centre for Development and Environment (CDE), University of Berne, 80pp.

the Framework Convention for Climate Change (FCCC).<sup>21</sup> The provisions of these conventions should be taken into consideration in the evaluation of existing laws, policies and institutions, and in the development of approaches for an effective participative regional natural resource management governance framework, including the national laws and institutions to implement transboundary law.<sup>22</sup>

## Biological Diversity Convention

20. The objective of the Convention on Biological Diversity (CBD) (Article 1) is the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies. The objective under the PALM Project should be to introduce standards required for biological diversity management of the Pamir-Alai mountain environment into various instruments at the respective administrative levels: regional, national and local.<sup>23</sup>
21. Many Articles of the CBD are relevant to the object of managing the High Pamir and Pamir-Alai mountain environment, particularly the concern that biological diversity is being significantly reduced by human activities, mostly through habitat loss and land degradation. In particular, the environmental, economic and social benefits of conserving biodiversity outlined under Articles 5–10 of the CBD could assist when framing domestic legislation to manage the Pamir-Alai region. The CBD stresses the importance of, and the need to promote, international, regional and global cooperation among countries and intergovernmental organizations and the non-governmental sector for conservation of biological diversity and the sustainable use of its components (Article 5). Article 6 outlines obligations for nations to prepare implementation strategies and measures for the conservation and sustainable use of biological diversity (Article 6). These strategies should make reference to the important links between different techniques for conserving biodiversity in the High Pamir and Pamir-Alai, and how these will benefit and improve land management and mitigate the effects of climate change (e.g., identifying areas for conservation [Article 7]; in-situ conservation [Article 8], impact assessment and minimizing adverse impacts [Article 14]).
22. A major role of the regional level transboundary framework is to set out the standards and rules for the conservation and sustainable use of biological diversity for the High Pamir and Pamir-Alai regional level, including adoption of strategies, plans or programs to reflect the national obligations in the CBD. A regional instrument for the High Pamir and Pamir-Alai should integrate conservation and sustainable use of biological resources into the high mountain regional decision-making systems. In this regard, the regional level instrument should introduce a set of common legal and policy standards for the Pamir-Alai of Kyrgyzstan and Tajikistan to:<sup>24</sup>

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<sup>21</sup> See Project Brief

<sup>22</sup> Hannam, I.D., 2006, *Transboundary Regulatory Frameworks and Institutional Arrangements: The Legal, Policy and Institutional Aspects of Sustainable Land Management in the Pamir-Alai Mountain Environment*, Sustainable Land Management in the High Pamir and Pamir-Alai Mountains, GEF PDF-B Project

<sup>23</sup> See Glowka, L et al 1998, *A Guide to Undertaking Biodiversity Legal and Institutional Profiles*, Environmental Policy and Law Paper No 35, IUCN the World Conservation Union; Hannam, I.D., 2004, 'International and National Aspects of a Legislative Framework to Manage Soil Carbon Sequestration', *Climatic Change*, 65:365-387.

<sup>24</sup> See Hannam, I.D., 2006, *Transboundary Regulatory Frameworks and Institutional Arrangements: The Legal, Policy and Institutional Aspects of Sustainable Land Management in the Pamir-Alai Mountain Environment*, Sustainable Land Management in the High Pamir and Pamir Alia Mountains GEF PDF-B Project

- Integrate the conservation and sustainable use of biological diversity into relevant national sectoral or cross-sectoral plans, programs and policies;
- Establish an effective regional level monitoring system for biological diversity;
- Provide for a system of protected areas, including representation of major ecosystems;
- Manage and protect biological diversity, ecosystems, natural habitats and the maintenance of viable populations of species in natural surroundings;
- Restore degraded ecosystems and promote recovery of species;
- Manage modified organisms and control alien species;
- Manage compatibility between present uses and the conservation of biological diversity and the sustainable use of its components;
- Preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote wider application of knowledge, innovations and practices and encourage equitable sharing of benefits arising from the utilization of such knowledge, innovations and practices;
- Ensure cooperation between government authorities of each country and the private sector in conservation and protection of biological resources; development of cooperative projects, investments in conservation and protection of biological resources;
- Accommodate economic and socially sound measures of the two countries as incentives for the conservation and sustainable use of components of biological diversity;
- Establish and maintain programs for scientific and technical education and training in measures for the identification, conservation and sustainable use of biological diversity and its components and provide support for such education and training;
- Promote and encourage research which contributes to the conservation and sustainable use of biological diversity at a regional level;
- Promote education and public awareness with respect to conservation and sustainable use of biological diversity, including understanding of the importance of, and the measures required for, the conservation of biological diversity, as well as its propagation through media, and the inclusion of these topics in educational programs;
- Promote basic procedures for EIA of proposed projects of regional interest that are likely to have significant adverse effects on biological diversity, to avoid or minimize such effects and allow for public participation in EIA;
- Cooperate in international technical and scientific aspects of conservation and sustainable use of biological diversity to benefit the region;
- Encourage cooperation for the development and use of technologies, including indigenous and traditional technologies, in pursuance of the objectives of the BDC for the Pamir-Alai region;
- Cooperate in international and Central Asian research and joint ventures into conservation and sustainable use of biological diversity.

23. At the national level, national legislation, procedures, policies, strategies, plans and programs should be in place to enable the national partners to conserve and achieve the sustainable use of biological diversity, including adapting existing strategies, plans or programs to reflect the national obligations in the CBD.

24. It is essential that procedures be developed that enable strategies, plans and programs to be prepared and implemented at the local level for the conservation and sustainable use of biological diversity, including adoption of existing policies, strategies, plans or programs to reflect the national obligations in the CBD at the local level. It will be essential for the strategies, plans or programs to be integrated with other community level strategies for land management, land degradation control and managing ecosystems.

## UN Framework Convention on Climate Change

25. The objective of the UN Framework Convention on Climate Change (UNFCCC) and its related legal instruments is to achieve stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved for the High Pamir and Pamir-Alai mountain region within a time frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner. The UNFCCC sets the overall framework for intergovernmental efforts to address climate change. It establishes the objective, principles, and commitments for different groups of countries, and a set of institutions that enable governments to monitor the Convention's implementation.<sup>25</sup>
26. The UNFCCC emphasizes that human activities have been substantially increasing the atmospheric concentrations of greenhouse gases, and recognizes the role and importance of terrestrial ecosystems as a sink and reservoir of its potential greenhouse gases. The ultimate objective of the UNFCCC (Article 2) is 'to achieve stabilization of atmospheric concentrations of greenhouse gases at levels that would prevent dangerous anthropogenic (human-induced) interference with the climate system . . . ' Its key Principles (Article 3) encourage Parties such as Kyrgyzstan and Tajikistan to protect the climate system for the benefit of present and future generations, take precautionary measures to minimize the causes of climate change and mitigate its effects, and promote sustainable development. The UNFCCC identifies the principal sources of greenhouse gases, including changes in land cover and land use.
27. The main agricultural activities in the High Pamir and Pamir-Alai that contribute to emissions of greenhouse gases are deforestation, biomass burning, and cultivation, using organic manure, applying nitrogenous fertilizers and the keeping of livestock. Under Article 4, Kyrgyzstan and Tajikistan have the mandate to develop and improve their legal, policy and institutional systems and responsibilities to protect the climate system for the benefit of present and future generations; take precautionary measures to prevent or minimize the causes of climate change; and to mitigate its adverse effects.<sup>26</sup>
28. A regional transboundary legal and policy framework, and national legislation and strategies are required to establish and manage sinks of all greenhouse gases that may be produced in the region.<sup>27</sup> The national partners should ensure that precautionary measures be undertaken to prevent or minimize the causes of climate change and mitigate its adverse effects. Where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing such measures, taking into account that policies and measures to deal with climate change should be cost-effective so as to ensure global benefits at the lowest possible cost. To achieve this, the legislation, policies and measures for Kyrgyzstan and Tajikistan should take into account different socio-economic contexts, be comprehensive, cover all relevant sources, sinks and reservoirs of greenhouse gases and adaptation, and cover all economic sectors.
29. Efforts to address climate change should be carried out cooperatively by Kyrgyzstan and Tajikistan and they should promote SLM. Policies and measures to protect the climate

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<sup>25</sup> Kyoto Protocol, Kyoto: 1997, *The Kyoto Protocol to the Convention on Climate Change*, the Climate Change Secretariat, UNEP; Marrakech Accords - UNFCCC (United Nations Framework Convention for Climate Change): 2002b, *Marrakech Accords*, see [www.unfccc.int/cop7/documents/accords\\_draft](http://www.unfccc.int/cop7/documents/accords_draft)

<sup>26</sup> Hannam, I.D, 2006, *Transboundary Regulatory Frameworks and Institutional Arrangements: The Legal, Policy and Institutional Aspects of Sustainable Land Management in the Pamir-Alai Mountain Environment*, Sustainable Land Management in the High Pamir and Pamir Alia Mountains GEF PDF-B Project

<sup>27</sup> See Hannam, I.D, 2004, 'International and National Aspects of a Legislative Framework to Manage Soil Carbon Sequestration', *Climatic Change*, 65:365-387

system against human-induced change should be appropriate for the specific conditions of Kyrgyzstan and Tajikistan and should be integrated with regional, national and local development programs, taking into account that economic development is essential for adopting measures to address climate change in the region.

30. At the regional level legal, policy and institutional framework could establish standards and rules to mitigate climate change of the Pamir-Alai region, including adoption of strategies, plans or programs to reflect the national obligations in the UNFCCC. A regional instrument for the High Pamir and Pamir-Alai can effectively integrate climate change strategies into high mountain regional decision-making systems. In this regard, a high mountain regional transboundary legal, policy and institutional framework should introduce a set of common legal and policy standards for the High Pamir and Pamir-Alai to:

- Promote and cooperate in the development, application and diffusion, including transfer, of technologies, practices and processes that control, reduce or prevent anthropogenic emissions of greenhouse gases;
- Promote SLM, promote and cooperate in conservation and enhancement of sinks and reservoirs of all greenhouse gases, including biomass, forests and other terrestrial ecosystems;
- Provide a strategy to manage impacts of climate change; develop integrated plans for land management, water resources and agriculture, and for the protection and rehabilitation of areas affected by drought and desertification;
- Provide a strategy to take climate change considerations into account in relevant social, economic and environmental policies and actions, and employ appropriate methods and impact assessments, to minimize adverse economic effects, public health and on the quality of the environment, of projects or measures undertaken by them to mitigate or adapt to climate change;
- Promote cooperation in scientific, technological, socio-economic and other research, systematic observation and development of data related to the climate system and to further the understanding and to reduce or eliminate uncertainties regarding the causes, effects, magnitude and timing of climate change and the economic and social consequences of various response strategies;
- Promote cooperation in exchange of scientific, technological, socio-economic and legal information related to the climate system and climate change, and to the economic and social consequences of response strategies;
- Promote cooperation in education, training and public awareness related to climate change and encourage participation in this process, including non-governmental organizations.

31. At the national level - national legislation, procedures, policies strategies, plans and programs could be prepared that enable Kyrgyzstan and Tajikistan to establish and manage sinks of all greenhouse gases, including measures to mitigate climate change by addressing anthropogenic emissions; promote and cooperate in the development, application and diffusion, including transfer, of technologies, practices and processes that control, reduce or prevent anthropogenic emissions of greenhouse gases; promote sustainable management, and promote and cooperate in conservation and enhancement of sinks and reservoirs of all greenhouse gases, including biomass, forests and other terrestrial ecosystems; and manage impacts of climate change; develop integrated plans for land management, water resources and agriculture, and for the protection and rehabilitation of areas affected by drought and desertification, as well as floods.

32. It is essential that procedures be established for Kyrgyzstan and Tajikistan that enable the development of local plans and strategies to manage the effects of climate change.

## Convention to Combat Desertification

33. The objective of the Convention to Combat Desertification (CCD) is to control desertification and mitigate the effects of drought in countries experiencing serious drought and/or desertification, through effective action at all levels, supported by international cooperation and partnership arrangements, in the framework of an integrated approach which is consistent with Agenda 21, to achieve sustainable development in affected areas. Achieving this objective for the High Pamir and Pamir-Alai region will involve long-term integrated strategies that focus simultaneously on improved productivity of land, control of land degradation, and the rehabilitation, conservation and sustainable management of land and water resources, leading to improved living conditions, in particular at the community level.<sup>28</sup> It has been effectively pointed out that desertification and drought (as defined under Article 1, CCD) is a problem of global dimension, affecting all regions of the world, including the High Pamir and Pamir-Alai.
34. The basic objective of the CCD is fundamental to SLM of the High Pamir and Pamir-Alai, in that it promotes reduction of land degradation, rehabilitation of degraded land and reclamation of desertified land (Article 2). Joint action is needed in the international community to combat desertification and mitigate the effects of drought, and this creates an important synergistic relationship between the obligations of the CBD, CCD and UNFCCC that can directly benefit and improve SLM. Many different land management techniques are available to combat desertification and control land degradation. The planning and decision-making mechanisms of the CCD (e.g., formation of National Action Programs and Sub-regional Action Programs, Part III), and its requirements for information collection (Article 16) research and development (Article 17), capacity building and community participation (Article 19), are ideal vehicles for the implementation of strategies to combat land degradation in the High Pamir and Pamir-Alai mountain region.<sup>29</sup>
35. It is appropriate that a regional level transboundary framework and strategy be developed to establish common standards and approaches of Kyrgyzstan and Tajikistan to cooperate to manage land degradation, desertification and drought in the High Pamir and Pamir-Alai region. A regional transboundary framework and strategy should establish procedures to:<sup>30</sup>
- Adopt an integrated approach to address the physical, biological and socio-economic aspects of desertification, land degradation and drought;
  - Give due attention, within the relevant international and regional bodies to establishing an enabling international economic environment conducive to the promotion of SLM;
  - Integrate strategies for poverty eradication into efforts to combat desertification, land mitigate the effects of drought;
  - Promote cooperation in the fields of environmental protection and conservation of land and water resources, as they relate to desertification, land degradation and drought;
  - Strengthen sub-regional, regional and international cooperation for desertification control;

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<sup>28</sup> See Hannam, I.D, 2004, 'International and National Aspects of a Legislative Framework to Manage Soil Carbon Sequestration', *Climatic Change*, 65:365-387

<sup>29</sup> CCD Secretariat, *Report of the Committee for the Review of the Implementation of the Convention*, 2002; the first Report of the Committee for the Review of the Implementation of the CCD recognizes that more coherent legislative codes, policy instruments and strategic frameworks are required to effectively deal with desertification and land degradation

<sup>30</sup> Hannam, I.D, 2006, *Transboundary Regulatory Frameworks and Institutional Arrangements: The Legal, Policy and Institutional Aspects of Sustainable Land Management in the Pamir-Alai Mountain Environment*, Sustainable Land Management in the High Pamir and Pamir Alia Mountains GEF PDF-B Project

- Cooperate within relevant intergovernmental organizations on desertification, land degradation and drought management;
- Determine national institutional mechanisms to manage desertification and drought;
- Promote educational and awareness at a regional level on desertification, land degradation and drought management;
- Promote research and investigation at a regional level into desertification, land degradation and drought management;
- Promote the development of a regional desertification, land degradation and drought monitoring system.

36. National legislation, procedures and strategies for Kyrgyzstan and Tajikistan will need to be developed to enable cooperation in the management of desertification, land degradation and drought.

37. It is essential that procedures be established within Kyrgyzstan and Tajikistan that enable local plans and strategies to be developed for cooperation in the management of desertification, land degradation and drought.

## H. TRANSBOUNDARY ISSUES

38. Various techniques introduced in the Methodological Research Guidelines will assist the Legal Task Forces understand the role and benefits of various types of laws to the integrated management of the mountain environment and how to approach the development of a procedure to prepare effective laws, policies and instruments for SLM and the mechanisms for transboundary management. Important issues to consider include:<sup>31</sup>

- (i) The need for effective regional environmental cooperation and implementation of strategies related to international environmental conventions;
- (ii) The creation of a regional environmental database through trans-boundary and regional environmental projects; and
- (iii) The need to harmonisation national environmental legislation under a commonly agreed set of standards.

## I. STRUCTURE OF THE METHODOLOGICAL RESEARCH GUIDELINES

39. The Methodological Research Guidelines consists of a number of Modules that set out a sequential procedure to collect, analyse and interpret legal, policy and institutional information relevant to SLM. The practical examples in the main text and the materials in the Appendices will help guide the Legal Task Forces in the interpretation and application of the steps in the Modules.

40. Each Module comprises:

- (i) An outline of its key components;
- (ii) Detailed discussion of each component;
- (iii) List of useful references and background information sources.

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<sup>31</sup> See point 2 of "Conclusions" to Regional meeting on Sustainable Land Management in the High Pamir and Pamir-Alai Mountains 28-30 June 2004; good examples to review include, eg, the 1991 *Convention Concerning the Protection of the Alps*; the 1985 ASEAN Agreement; the 1991 *Convention on Environmental Impact Assessment in a Transboundary Context*; See Treves, T, L. Pinschi and A. Fodella, (Eds), 2004, *Sustainable Development of Mountain Areas, Legal Perspectives Beyond Rio and Johannesburg*, Gouffre Editore, Milano; Treves, T, L. Pinschi and A. Fodella, (Eds), 2002, *International Law and Protection of Mountain Areas*, Gouffre Editore, Milano

**j. IMPLEMENTATION FORMAT**

41. A suggested workshop format to introduce the Methodological Research Guidelines to the Legal Task Forces is outlined in Appendix 1.

## **PART B - MODULES**

Note – in the Methodological Research Guidelines, any reference to the term “Legal, Policy and Institutional Framework” is taken to have the same meaning as the term “Regional Natural Resource Management Governance Framework”

## MODULE 1: BACKGROUND TO METHODOLOGICAL RESEARCH GUIDELINES FOR DEVELOPMENT OF A REGIONAL NATURAL RESOURCE MANAGEMENT GOVERNANCE FRAMEWORK

### Module 1 covers:

- A. Background and objectives of analysing legal, policy and institutional aspects for SLM;
- B. Examples of legal and institutional frameworks suitable for SLM;
- C. Outline of key aspects to consider for a regional natural resource management framework for Pamir-Alai mountain environment;
- D. Useful references and background information sources.

### A. BACKGROUND AND OBJECTIVES OF ANALYSING LEGAL, POLICY AND INSTITUTIONAL ASPECTS FOR SLM

1. The general concept of a regional natural resource management framework is to provide law and policy makers with the practical information and guidance to understand, develop or strengthen the legal, policy and institutional capacity for SLM in the Pamir-Alai mountain environment, at all levels.
2. Legal and institutional frameworks can be prepared at the international, regional or national and local level or a combination of these levels. Some nations have improved the capability of their domestic legislative and policy systems by drawing on relevant provisions from regional and international environmental laws (see Shine and de Klemm 1999; Hannam and Boer 2002; Hannam 2008). An important aspect of a framework can be the need for cooperation and coordination between two or more countries in a region to effectively address a number of environmental issues considered common to each country (Boer et al. 1998).
3. Various activities have been undertaken to create or modify legal and institutional frameworks to implement the objectives of multilateral treaties and conventions and national environmental agenda (e.g., Glowka et al. 1998; Shine and de Klemm 1999). Approaches taken in these examples include a number of lessons applicable to a regional natural resource management governance framework for the Pamir-Alai region.
4. Outcomes of the 1992 United Nations Conference on Environment and Development (UNCED) have been beneficial in establishing the approach used by various countries. Principles of the 1992 *Rio Declaration on Environment and Development* (United Nations 1992) have been successfully incorporated into many legislative and policy reforms to improve the quality of the natural environment. More recently, the *Report of the World Summit on Sustainable Development* (United Nations 2002), the *World Summit on Environment and Development Plan of Implementation* (WSSD 2002), outcomes of the Kyoto Water Forum 2003 and the World Conservation Congress (Bangkok 2004), provide additional information for environmental law and policy reform for SLM at all levels.<sup>32</sup>

### B. EXAMPLES OF LEGAL AND INSTITUTIONAL FRAMEWORKS FOR SLM

7. Many legal and institutional frameworks demonstrate different ways to approach international, regional and national environmental law analysis and reform (Robinson 1997). These frameworks illustrate the impact of different pressures on the natural environment

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<sup>32</sup> See Treves, T, L. Pinschi and A. Fodella, (Eds), 2004, *Sustainable Development of Mountain Areas, Legal Perspectives Beyond Rio and Johannesburg*, Gouffre Editore, Milano

and demonstrate how laws and institutions can mutually link between the scientific approaches and legal and strategic tools (e.g., Shine et al. 2000).

8. While none of these frameworks alone is considered directly adaptable as a regional natural resource governance framework for SLM in the Pamir-Alai mountain environment, various aspects of them are a valuable guide for the national Legal Teams to formulate a suitable approach to examine the legal, policy and institutional aspects of the region.
9. Various examples to review are in Section D below.

### C. OUTLINE OF KEY ASPECTS TO CONSIDER FOR LEGAL AND INSTITUTIONAL FRAMEWORK FOR SLM IN THE MOUNTAIN ENVIRONMENT

10. Assessment of various legal, policy and institutional frameworks for land management indicate a number of common factors in the analytical procedure in these studies considered useful for the Pamir-Alai Project, including:

- (i) An overview of the current international and regional legal regime, to outline legal approaches, principles and tools in the international law that could be considered in shaping a regional and national framework for SLM;
- (ii) Detailed examination of the structure of the existing national framework, specifically its ability to manage complex natural resources and governance issues in a legislative, policy and institutional context;
- (iii) A discussion of the role of legal principles, tools and other elements in the design of national legal measures and policy procedures to achieve SLM;
- (iv) An outline of legal, policy and institutional elements that would be included in the design of a new framework, including provision for a regulatory approach and a non-regulatory approach at each level;
- (v) An outline of the principal mechanisms for education, awareness, community participation, compliance, accountability and responsibility to achieve good governance through a legal, policy and institutional framework (e.g., see Shine et al. 2000).

11. The following summary table provides examples of legal and institutional framework studies which are a good source of approaches, methods, collation and interpretation of legal, policy and institutional data, and how to frame results and recommendations for future action. Full references are found in Section D below.

Author	Brief details of framework study
Robinson 1997	Comparative environmental law, legal systems and sustainable development
Glowka et al 1998	Biodiversity legal and institutional frameworks
Shine 1999	Water, wetlands and the law
Shine et al 2000	Designing legal and institutional frameworks on alien species
Nowlan 2001	Legal and institutional framework for Arctic management
Hannam 2002	Legal and institutional frameworks for land and water management in various Asian countries

Hannam 2003	Method to identify and evaluate legal and institutional framework of water and land in Asia.
Hannam and Boer 2002	Legal and institutional framework for sustainable use of soil
Hannam and Boer 2004	Guide to drafting legislation for sustainable soils
Niasse et al 2004	Legal and institutional aspects of water governance in West Africa
Njokanma 2004	Legal and institutional framework governing management of water resources in Nigeria
Asian Development Bank 2004	Outline of comprehensive procedure to prepare a legal, policy and institutional framework for land degradation control in PRC
Peoples Republic of China 2007	Provincial Legal and Policy Framework to Control Land Degradation – six provinces of western China
Hannam 2008	Assessment of Environmental Laws of Mongolia

A well researched and documented regional natural resource management governance framework will provide many benefits to Kyrgyzstan and Tajikistan, including:

- (i) As a management mechanism to give each country practical information and guidance to understand, develop and strengthen the capacity of the legal policy and institutional system for SLM;
- (ii) A procedural basis to integrate SLM within the existing legal and policy system;
- (iii) A mechanism to improve coordination between the legal and technical decision-making functions for SLM;
- (iv) A mechanism to improve coordination between key stakeholder groups for SLM implementation;
- (v) An important part of each country's national environmental planning strategy and a blueprint for legal, policy and institutional responsibilities, planning and reform;
- (vi) To identify activities that will require further financial aid.

#### **D. USEFUL REFERENCES AND BACKGROUND INFORMATION SOURCES:**

1. Asian Development Bank 2004, *Component 1 - Improving Policies, Laws and Regulations for Land Degradation Control*, PRC-GEF Partnership on Land Degradation in dryland ecosystems, Capacity Building to Combat Land Degradation Project.
2. Boer, B.W.; Ramsay, R.; Rothwell, D.R. 1998. *International Environmental Law in the Asia-Pacific*. London: Kluwer Law International.
3. Bridges, E.M., I. Hannam, L.R. Oldeman, S. Scherr, F. Penning de Vries and S. Sombatpanit (Eds). 2001. *Response to Land Degradation*. Science Publishers. Enfield, New Hampshire. USA; See Introduction and explanation of DPSIR Framework.
4. Glowka, L. in collaboration with C. Shine, O. Rey Santos, M. Farooque, L. Grundling. 1998. *A guide to undertaking biodiversity, legal and institutional profiles*. Environmental Policy and Law Paper, No 35, Bonn, Germany: IUCN Environmental Law Centre.
5. Hannam, I.D. 2003. *A method to identify and evaluate the legal and institutional framework 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. Hannam, I.D. and B.W Boer, 2002, *Legal and Institutional Frameworks for Sustainable Soil*. Environmental Law and Policy Paper No 45, IUCN, Gland, Switzerland and Cambridge, UK. 88p.
6. Hannam, I.D. 2002, *Legal and institutional frameworks for the sustainable management of mountain environments*, International Conference', Natural and Socio-economic Effects of Erosion Control in Mountainous Regions. Faculty of Forestry, Belgrade University.
7. Hannam, I.D, 2008, *Assessment of Environmental Laws*, Final Report, UNDP Project Strengthening Environmental Governance in Mongolia

8. Hurni, H. and K. Meyer. 2002. *A World Soils Agenda: Discussing International Actions for the Sustainable Use of Soils*. Prepared with the support of an international group of specialists of the IASUS Working Group of the International Union of Soil Sciences (IUSS). Centre for Development and Environment, Berne 63pp.
9. Niasse, M, A, Iza, G. Amidou et Olli Varis, 2004, *Water Governance in West Africa: Legal and Institutional Aspects*, IUCN, Gland, Switzerland and Cambridge, UK.
10. Njokanma, I.R, 2004, 'The Legal and Institutional Framework Governing the Management of Water Resources in Nigeria', in (Eds) Niasse, M, A, Iza, G. Amidou et Varis, *Water Governance in West Africa: Legal and Institutional Aspects*, IUCN, Gland, Switzerland and Cambridge, UK.
11. Nowlan, L, 2001, *Arctic Legal Regime for Environmental Protection*. IUCN, Gland, Switzerland and Cambridge, UK and ICEL, Bonn, Germany.
12. Robinson, N. 1997. Comparative environmental law: How legal systems address sustainable development. Presentation for the *Elizabeth Haub Colloquium*. 17-18 April 1997. Wiesbaden, Germany. In *Capacity building for environmental law in the Asian and Pacific region: Approaches and resources. Volume I*, ed. Craig, D.G.; Robinson, N. A.; Kheng-Lian, Koh. 2002. Manila: Asian Development Bank.
13. Shine, C.; Williams, N.; Gundling, L. 2000. *A guide to designing legal and institutional frameworks on alien invasive species*. Environmental Policy and Law Paper No 40. Bonn, Germany: IUCN Environmental Law Centre: A Contribution to the Global Invasive Species Program.
14. Shine, C.; Klemm, C. de. 1999. *Wetlands, water and the law. Using law to advance wetland conservation and wise use*. IUCN Environmental Policy and Law Paper No 38. Gland, Switzerland: International Union for the Conservation of Nature.
15. United Nations. 2000. *Report of the world summit on sustainable development*. Nairobi: United Nations Environment Programme.
16. WSSD (World Summit on Environment and Development), 2002, *Plan of implementation*. Nairobi: United Nations.

## MODULE 2: OUTLINE OF METHODOLOGICAL RESEARCH GUIDELINES TO DEVELOP A REGIONAL NATURAL RESOURCE MANAGEMENT GOVERNANCE FRAMEWORK FOR PAMIR-ALAI MOUNTAIN ENVIRONMENT

### Module 2 covers:

- A. Identifying steps in the methodology to identify and evaluate legal, policy and institutional aspects for SLM in a mountain environment;
- B. Key definitions and terminology that are fundamental to the method, e.g. “sustainable land management”; “integrated natural resources management”; “land degradation”; “mountain environment”;
- C. Finalizing the methodology, undertaking the research, and presenting the results;
- D. Useful references and background information sources.

### A. IDENTIFYING STEPS FOR THE METHODOLOGY TO EVALUATE LEGAL, POLICY AND INSTITUTIONAL ASPECTS OF SLM IN MOUNTAIN ENVIRONMENT

1. A number of basic steps (below) should be followed to research and analyze the legal, policy and institutional aspects of SLM in the region and to develop a suitable, practical framework (Hannam 2002a).<sup>33</sup>
2. The Steps should be applied to examine international, regional, national and local level materials and issues, and in doing so, the different objectives, roles and responsibilities of each level of law, policy and institution for the region and its overall capacity to implement SLM can be carefully evaluated. With regard to international law, where Tajikistan and Kyrgyzstan is a party to an existing treaty, this may impose obligations or duties on each country to implement the provisions of the particular treaty. On the other hand, they may not be bound to implement the provisions of the international environmental strategies but they should use them as a guide to establish national environmental management strategies and for environmental decision-making purposes (see Boer et al. 1998; Mottershead 2002).
3. At the national level, Tajikistan and Kyrgyzstan have the freedom to change their national laws and policies and prepare “common boundary” agreements to manage the environment.
4. The primary aim is to develop an approach that is within the capabilities of each country and look for opportunities for improvement.
5. The following 3 Steps should be used as a guide.

#### Step 1 - Preliminary

6. Three main tasks are carried out under Step 1:

- (i) Identify the primary land management issues in the region which are important to achieving a SLM goal; transboundary and national context.

An issue is defined as an expressed point or area of concern, which may include reference to the knowledge and action needed to achieve SLM. It may also include a

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<sup>33</sup> See “Action Plan for Developing Proposed Mechanisms”p29-34 in Hannam, I.D, 2006, *Synthesis Report: The Legal, Policy and Institutional Aspects of Sustainable Land Management in the Pamir-Alai Mountain Environment*, Sustainable Land Management in the High Pamir and Pamir-Alai Mountains, GEF PDF-B Project

matter that requires further research to determine or justify a particular course of action (see Penning de Vries et al. 2002 and CDE 2005 for examples of issues).<sup>34</sup>

- (ii) Identify the operational environment for SLM; transboundary and national context.

This includes the principal methods, processes and procedures used to implement, report, and solve land management issues (e.g., see the operational environment outlined in *Dialogue on Water, Food and Environment* 2001, 10).

- (iii) Identify law and policy relevant to SLM at each level: international, regional/transboundary, national and local.

- 7. A list of relevant law for each level would be prepared from the various national and international legal databases (e.g., *Asia-Pacific Environmental Law database*), in addition to canvassing relevant national literature. A law or instrument should be selected for analysis based on its assessed direct or indirect role in SLM.

## **Step 2 - Analysis**

- 8. Three tasks are carried out in Step 2:

- (i) Examine, analyze and interpret the selected environmental laws and policies at each level against a set of standard essential elements.
- (ii) For the relevant laws and policies at each level:
  - a. Determine the specific articles, principles or clauses relevant to SLM;
  - b. Categorize the articles, principles, or clauses according to which “essential element” they satisfy.
- (iii) Prepare the legal, policy and institutional profiles for each individual law, where each profile shows:
  - a. The relative occurrence of each essential element;
  - b. The pattern of distribution and occurrence of each essential element.

## **Step 3 - Discussion, results, outcomes**

- 9. Four tasks are carried out in Step 3:

- (i) Summarize information as legal and institutional profiles;
- (ii) Document the principal characteristics, strengths and weaknesses of each level of law;

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<sup>34</sup> Centre for Environment and Development (CDE), 2005, *Synthesis Report, Baseline Survey on Sustainable Land Management in the Pamir-Alai Mountains*, Institute of Geography, University of Bern; Penning de Vries, F, Acquay, H, Molden, D, Scherr, S. J, Valentin, C, Cofie, O, 2002, *Integrated water and land management for food and environmental security*, Comprehensive Assessment Research Paper 1.Colombo, Sri Lanka: Comprehensive Assessment Secretariat

- (iii) Determine the capacity of the legal, policy and institutional system to achieve SLM for the mountain environment;
- (iv) Determine opportunities for legislative, policy and institutional improvement, and outline targets for legal, policy and institutional reform to improve implementation of SLM.

## **B. IMPORTANT DEFINITIONS AND TERMINOLOGY TO THE RESEARCH**

10. It is appropriate that key terms used in the Methodological Research Guidelines are adequately defined - as the basic concepts, principles and requirements that are reflected in these definitions form the basis of developing the criteria and standards against which existing legal, policy and institutional aspects of each country will be examined.

11. The following terms are used generically in the Methodological Research Guidelines. They are used as “benchmarks” or “standards” and play a key role in the implementation of the analytical method.

“Capacity”: of an individual law, or area of law, to implement SLM, is measured by the number and type of essential legal and institutional elements present within the laws, in a format that enables implementation of SLM, and with the legal, administrative and technical capability to take some form of positive action for SLM. In general, the more essential elements present within a law or regulation in a format to effectively implement SLM, the greater the capacity of that law to assist with the effective control of environmental problems.<sup>35</sup>

“Desertification”: means land degradation in arid, semi-arid, and dry sub-humid areas resulting from various factors, including climatic variations and human activities.<sup>36</sup>

“Essential element”: is a basic, essential component part of a legal and institutional system. An element is 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 (which is a direct statutory or 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 some form of legally based action to achieve the sustainable use of water and land.<sup>37</sup>

“Integrated ecosystem management”: is 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).<sup>38</sup>

“Land degradation”: encompasses soil degradation and the deterioration of natural landscapes and vegetation. Human-induced degradation includes the adverse effects of overgrazing, excessive tillage, over-clearing, erosion and sediment deposition, extractive industries, urbanisation, disposal of industrial wastes, road construction, decline of plant communities, the effects of animals and noxious plants, and pollution of the air with its effect on land.<sup>39</sup>

“Law”: means a body of law enacted by a legislature, e.g. an act, decree, regulation, code, or other formal legal instrument that is legally enforceable. It can include agreements or covenants

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<sup>35</sup> Hannam, I.D and B.W. Boer, 2004, *Drafting Legislation for Sustainable Soil: A Guide*, IUCN, Gland, Switzerland and Cambridge, UK, p10

<sup>36</sup> Boer, B.W and Hannam, I.D, 2003, ‘Legal Aspects of Sustainable Soils: International and National’, *Review of European Community and International Environmental Law*, p 151

<sup>37</sup> Supra Hannam and Boer 2004, p6

<sup>38</sup> Global Environment Facility, 2000, *GEF Operational Program #12 Integrated Ecosystem Management*, Nairobi, Kenya

<sup>39</sup> Supra Hannam and Boer 2004

that are expressed to be legally binding. <sup>40</sup> NOTE – in the Methodological Research Guidelines, the word “law” is used in the collective sense and may include one or more of the type of legal instruments specified in the definition. The main sources of law include:

- Obligations under international law;
- Primary legislation;
- Local regulations;
- Customary laws and practices;
- Constitutional provisions;
- Secondary (implementing) legislation;
- Formal government policies;
- Ministerial technical guidelines;
- Contracts and concessions

“Legal and institutional system”: is the organisational and operational regime that is used to implement and manage a legal, policy and institutional framework. <sup>41</sup>

“Mountain environment” means: “the combination of physical, ecological and human attributes that characterize a particular part of the landscape as a mountain area. It is a generic term that conveys an understanding of variability, and that specialized approaches are required to the development of legal and institutional systems to protect and manage the unique and diverse environmental and human conditions of mountain areas” (see Module 1)

“Regional Natural Resource Management Governance Framework”: includes the national laws, policies and institutional requirements to implement sustainable land management and the transboundary law to manage natural resources of the High Pamir and Pamir-Alai mountain environment.

“Sustainable land management”: is a “land management system that combines technologies, policies and activities aimed at integrating socio-economic principles with environmental concerns to satisfy the five pillars of sustainable land management”. The five pillars of SLM are:

- (i) To maintain or enhance production;
- (ii) To reduce the level of production risk;
- (iii) To protect the potential of natural resources and prevent degradation of soil and water quality;
- (iv) To be economically viable; and
- (v) To achieve social acceptability.

“Sustainable land and water management” means managing land and water resources for livelihoods and nature by identifying the necessary tasks, policy tools, organisational designs, and institutional frameworks to achieve and sustain high productivity of land and water for agriculture and to improve people’s lives. <sup>42</sup>

## **C. FINALIZING THE METHODOLOGY, UNDERTAKE THE INVESTIGATION AND PRESENT RESULTS**

12. An important part of the research approach by the Legal Task Forces is the preparation of a plan that outlines the timing and sequencing of each individual task identified in the above

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<sup>40</sup> Supra, footnote 22, p7

<sup>41</sup> Supra, Hannam and Boer 2004, p11

<sup>42</sup> Supra Hannam 2003

Steps. This plan, which will be supplied to UNE and CDE (as leader of the Pamir Alai Transboundary Strategy and Action Plan Formulation Team [PATSAF]) will:

- (i) Identify duties of officials undertaking the legal, policy and institutional analysis;
- (ii) Set out a time frame for undertaking the analysis;
- (iii) Set out the parameters for review, and outline how monitoring will take place;
- (iv) Set out the framework for the final report.

### Guide for collecting information on policy, legislation and institutional aspects for SLM

13. The following guide can be used for collecting preliminary information on policy, legislation and institutional aspects for SLM.

#### Guide 1- Collecting preliminary information on policy, legislation and institutional aspects for SLM

Information area	Information to be collected
1. Policies for Sustainable Land Management <sup>43</sup>	
(i) <u>Categorise the major areas of policy that relate to SLM</u> <sup>44</sup>	
a. List the individual policies for each category.	
b. Specify the level at which the policy is aimed, i.e. State, regional or local?	
(ii) <u>For each policy - outline:</u>	
a. The particular area of legislation that each policy is associated with?	
b. Which institution is responsible for managing and implementing each policy?	
c. What are the main aims and objectives of each policy?	
d. What specific aspects of each policy will help achieve SLM?	
e. Does each policy have a review date/period?	
f. Which other policies does each policy interact with or support?	

<sup>43</sup> Sustainable land management - combines technologies, policies and activities aimed at integrating socio-economic principles with environmental concerns as to simultaneously maintain or enhance production, reduce the level of production risk, protect the potential of natural resources and prevent soil and water degradation in an economically viable and socially acceptable manner.

<sup>44</sup> Categories of policies could include policies relating to, eg, water; soil; environmental planning; land administration; land tenure; catchment management; vegetation management; forestry

g. What improvements/ changes can be made to the policies to achieve SLM objectives?	
h. What additional policies would you like to see introduced to help achieve SLM?	
2. Legislation for Sustainable Land Management <sup>45</sup>	
(i) <u>Categorise the major areas of legislation that relate to SLM</u> <sup>46</sup>	
a. List the individual laws in each category?	
b. Specify the level at which each operates, State, regional, local?	
(ii) <u>For each individual law - outline:</u>	
a. Which institution is responsible for that law?	
b. What are the principal aims and objectives of each individual law?	
c. What aspects of each law help achieve SLM?	
d. Does each law have a review date/period?	
e. Specify where individual laws overlap or duplicate with other laws?	
f. Specify where particular areas of law interact or support each other?	
g. What improvements/ changes could be made to each individual law to achieve SLM objectives?	
3. Institutions for Sustainable Land Management <sup>47</sup>	
(i) <u>Categorise the major types of institutions that have a responsibility to SLM</u> <sup>48</sup>	
a. List the individual institutions in each category?	

<sup>45</sup> In this guideline "legislation" means - an act, decree, regulation, code, or other formal legal instrument that is legally enforceable. It can include agreements or covenants that are expressed to be legally binding.

<sup>46</sup> Categories of legislation could include eg, constitutional law; water use law; soil conservation laws; environmental planning laws; environmental protection; agricultural land use laws; agricultural reform; land administration laws; land tenure laws; catchment management laws; vegetation management laws; forestry laws; protected area law; See Annex II - Environmental Legislation Framework, Project Identification Document.

<sup>47</sup> In this guideline an "institution for sustainable land management" means - a government agency, ministry, academic institution, official government committees or working groups etc.

<sup>48</sup> Categories of institutions could include, eg, water management; soil conservation management; environmental planning; land administration; land tenure administration; catchment administration; forest administration; protected area administration; forest management.

b. Specify which level the institution operates at, State, regional, local?	
(ii) <u>For each institution - outline:</u>	
a. The ministry or area of government responsible each institution?	
b. Main responsibility of each institution to implementation of SLM?	
c. Specific functions of institution for implementing SLM? <sup>49</sup>	
d. Specific activities of institution for implementing SLM? <sup>50</sup>	
e. What other aspects of the institution will help achieve SLM?	
f. Which other institutions does each institution interact with or support?	
g. Areas where particular institutions may overlap or duplicate each other in SLM functions and activities?	
h. What improvements/ changes could be made to individual institution to achieve SLM objectives?	

#### D. USEFUL REFERENCES AND BACKGROUND INFORMATION SOURCES:

1. Boer, B.W.; Ramsay, R.; Rothwell, D.R. 1998. *International Environmental Law in the Asia-Pacific*. London: Kluwer Law International.
2. Boer, B.W., and I.D Hannam, 2003, Legal Aspects of Sustainable Soils: International and National, *Journal of Review of European Community and International Environmental Law*, V 12:2.
3. Dialogue on Water, Food and Environment. 2001. Various international actors in water resources management, water resources research, environmental conservation and health: Dialogue on water, food and environment. *Summary report, planning and design meeting*. Colombo. December 2000.
4. Glowka, L. in collaboration with C. Shine, O. Rey Santos, M. Farooque, L. Grundling. 1998. *A guide to undertaking biodiversity, legal and institutional profiles*. Environmental Policy and Law Paper, No 35, Bonn, Germany: IUCN Environmental Law Centre.
5. Hannam, I. D. 2002a. Legal and institutional frameworks for water and land management with particular reference to marginal areas in selected countries in South and Southeast Asia and the People's Republic of China. Colombo, Sri Lanka: International Water Management Institute.

<sup>49</sup> Eg, functions include - preparing strategies and policies; undertaking public participation and awareness programs; educational programs in SLM; preparing SLM guidelines and standards; taking action to overcome rural poverty; designing and implementing practical land and water management schemes; river basin management.

<sup>50</sup> Eg, activities can include - natural management activities; administrative activities; technical based activities; knowledge-based activities; legal and policy based activities.

6. Hannam, I.D. 2003. *A method to identify and evaluate the legal and institutional framework 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.
7. Hannam, I.D., and B.W Boer, 2002, *Legal and Institutional Frameworks for Sustainable Soil*. Environmental Law and Policy Paper No 45, IUCN, Gland, Switzerland and Cambridge, UK. 88p.
8. Hannam, I.D. 2002, *Legal and institutional frameworks for the sustainable management of mountain environments*, International Conference', Natural and Socio-economic Effects of Erosion Control in Mountainous Regions. Faculty of Forestry, Belgrade University.
9. Lynch, O.J., and G.F. Maggio, 2000, *Mountain Laws and Peoples: Moving Towards Sustainable Development and Recognition of Community-Based Property Rights, A General Overview of Mountain Laws and Policies with Insights from the Mountain Forum's Electronic Conference on Mountain Policy and Law*, the Mountain Institute. Center for International Environmental Law and Mountain Forum, Lima, Peru.
10. Mohamed-Katerere, J, 2001, *Review of the legal and Policy Framework for Transboundary Natural Resource Management in Southern Africa*. Paper No 3. IUCN-ROSA Series on Transboundary Natural Resources Management.
11. Mottershead, T. ed. 2002. *Environmental law and enforcement in the Asia-Pacific rim*. Hong Kong: Sweet and Maxwell.
12. Penning de Vries, F.; Acquay, H.; Molden, D.; Scherr, S. J.; Valentin, C.; Cofie, O. 2002. *Integrated water and land management for food and environmental security*. Comprehensive Assessment Research Paper 1. Colombo, Sri Lanka: Comprehensive Assessment Secretariat.
13. Villeneuve, A, P. Talla and M.A Mekouar, 2002, *the Legal Framework for Sustainable Mountain Management: an Overview of Mountains-Specific Instruments*. Food and Agriculture Organisation, Rome.

## MODULE 3: IMPLEMENTING THE RESEARCH METHODOLOGICAL GUIDELINES

### Module 3 covers:

- A. Identifying SLM issues affected by legislation and policy in mountain environment;
- B. Identify the operational environment for SLM in mountain environment - principal methods, processes and procedures used to understand, implement and solve natural resource management issues in mountain environment;
- C. Identify environmental law relevant to SLM in mountain environment – including international, regional, national and local laws (Annexes II and III of Project Brief include a list of laws for Kyrgyzstan and Tajikistan – but other additional legislative materials also need to be investigated);<sup>51</sup>
- D. Preparing the framework of SLM policy;
- E. Useful references and background information sources.

### A. IDENTIFICATION OF SLM ISSUES AFFECTED BY LEGISLATION AND POLICY IN THE MOUNTAIN ENVIRONMENT<sup>52</sup>

1. The primary SLM issues identified in the Kyrgyzstan and Tajikistan mountain environment will form the underlying basis to implement the Methodological Research Guidelines. They will be identified by each national Legal Team by examining key strategic materials for each country (land management studies, policies, environmental reports, governments reports etc), paying particular attention to their objectives, recommendations and conclusions (e.g., see Penning de Vries et al. 2002, 47–60 in particular; *Dialogue on Water, Food and Environment* 2001; WSSD 2002a, b; IWMI 2002; World Bank 2001; CDE 2005); see Module 2 – Step 1: Preliminary Tasks.

2. The issues are regarded as “primary points or matters of public importance to SLM and natural resource management”, and will be used to:

- (i) Establish “benchmarks” of the important environmental problems facing each country and the region - relevant to SLM of the mountain environment;
- (ii) Establish indicators of the type of legal and institutional elements required for each level of law to effectively manage each SLM issue;
- (iii) Make comparisons between the legal and institutional profiles of each area of law and each individual law examined;
- (iv) Identify potential areas for legal, policy and institutional reform for SLM of mountain environment.

3. It is important to canvass the issues diligently because these are used to pinpoint and decide the hierarchy of the different areas of law and policy relevant to SLM:

- (i) An issue is any expressed point or area of concern which may include reference to the knowledge and action needed to achieve a particular aspect of SLM.
- (ii) It may also include a matter that requires further investigation to determine or justify a particular course of action in achieving a particular aspect of SLM.<sup>53</sup>

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<sup>51</sup> Tables 2 and 3 in Module 3 have additional laws to those listed in Annexes II & III

<sup>52</sup> E.g. see sections 1.2, 1.3 and 3 of the Project Brief

<sup>53</sup> See Centre for Environment and Development (CDE), 2005, *Synthesis Report, Baseline Survey on Sustainable Land Management in the Pamir-Alai Mountains*, Institute of Geography, University of Bern; Penning de Vries, F, Acquay, H, Molden, D, Scherr, S. J, Valentin, C, Cofie, O, 2002, *Integrated water and land management for food and environmental security*, Comprehensive Assessment Research Paper 1.Colombo, Sri Lanka: Comprehensive Assessment Secretariat

(iii) Issues can be extracted from existing regional, national and local environmental strategies, land management materials, policy materials, strategic materials etc.<sup>54</sup>

4. The primary issues will be used in conjunction with the findings of the analyses of the legal and policy materials, for each level, as the basis to recommend change and reform.
5. Matters set out in Sections 1.2 -1.3 of the Project documentation and the Synthesis Report by the Centre for Development and Environment, University of Bern, provide a good guide to Issues in the region that should be considered in a SLM context.<sup>55</sup>

### **Categorizing the issues**

6. SLM issues should be categorized for convenience of discussion and analysis for SLM e.g., as non-legal or general issues, and legislative, policy and institutional issues.

### **Examples of land management issues for consideration in a SLM context**

7. Non-legal - general Issues:
  - (i) To improve natural resource management by bridging the gap between the land use and environmental management sectors; effective identification of threats and root causes to environmental problems in Pamir-Alai mountain environment;
  - (ii) To protect unique ecosystems and prevent loss of biodiversity;
  - (iii) To encourage more equitable policy and decision-making processes;
  - (iv) To maintain land-use sustainability in the face of increasing water and land degradation (increasing the productivity of water and land in agriculture with increasing competition for water and land from other sectors);
  - (v) To improve the processes for resolving disputes over water and land use, particularly more effective ways to settle conflicts between resource use and conservation and provide benefit to people affected by poverty;
  - (vi) To replace environmentally detrimental and unsustainable practices that cause severe environmental degradation with practices in harmony with the environment;
  - (vii) To develop a knowledge base that reflects regional, national and local differences in land use and physical, social and environmental interests;
  - (viii) To change attitudes and values in SLM through increased public awareness, public participation and capacity building;
  - (ix) To identify institutional barriers, participation processes and stakeholders;
  - (x) To ensure an open and inclusive approach to SLM;
  - (xi) To improve the knowledge-sharing processes for SLM.

### **Examples of legislative, policy and institutional issues for consideration in SLM context**

8. International and regional level issues relevant to Kyrgyzstan and Tajikistan include:

- (i) Issues expressed in international treaties and strategies that are representative of the type of national environmental-management issues evident in Pamir-Alai region;
- (ii) Mechanisms available in treaties and strategies that relate specifically to SLM;
- (iii) Presence of fundamental principles (e.g. respect for life forms, independent values, prevention, precaution, eradication of poverty); common responsibilities (e.g. general obligations, integrating policies, transformation of environmental harm); obligations relating to natural systems and resources (e.g. global climate, natural systems, biological diversity, cultural and natural heritage); obligations relating to processes and activities (e.g. prevention of harm, pollution, waste); obligations relating to global issues (e.g. consumption and production patterns, demographic policies, trade and

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<sup>54</sup> Supra, Centre for Environment and Development, 2005; Penning de Vries et al 2002

<sup>55</sup> Supra, Centre for Environment and Development, 2005

environment, economic activities); transboundary issues (e.g. transboundary environmental effects, prior informed consent, transboundary natural resources); implementation and cooperation (e.g. actions plans, physical planning, environmental impact assessment, environmental standards and controls, monitoring environmental quality, scientific and technical cooperation, information and knowledge, education and training, financial resources); responsibility and reliability (e.g. state responsibility, state liability, restitution and compensation, consequences of failure to prevent environmental harm, exceptions, remedies, recourse under domestic law, environmental harm in areas beyond jurisdiction); application and compliance (e.g. areas beyond limits of national jurisdiction, reporting, compliance and dispute avoidance, settlement of disputes, review processes).<sup>56</sup>

- (iv) Mechanisms for enforcing regional and international laws and strategies and how these may affect Kyrgyzstan and Tajikistan.

#### 9. National level issues:

- (i) Undertake detailed study of laws and rule making, policy and institutional arrangements, from local, community and the national level;
- (ii) Prepare strategic management plans and innovative policies and laws for SLM;
- (iii) Produce knowledge-based guidelines, best practices and policies that enable institutions to manage SLM problems in an integrated way;
- (iv) Develop strategic tools for enhancing the productivity of water and land at local, river-basin and national level;
- (v) Identify poverty and gender concerns associated with the use of natural resources, and how to properly cater for these in national law and policymaking systems;
- (vi) Develop institutional arrangements and policy frameworks to improve productivity of water and land, overcome land degradation, assist poor people and achieve SLM.

#### **Issues in an environmental law and policy context**

10. The primary SLM issues are used to determine the adequacy of the legislative, policy and institutional elements to achieve SLM at each level. They are also used as a guide to the most appropriate legal, policy and institutional framework that can best manage these SLM issues in Kyrgyzstan and Tajikistan into the future.

11. The steps to follow include:

- (i) Compile a list of elements considered necessary to deal with the specific component of each particular issue;
- (ii) Register the number of times each particular element is considered necessary;
- (iii) Use this information to determine the relative importance of a particular element to the management of SLM problems.

12. It is important to note that most SLM issues will be multi-factorial, i.e., they will include a sociological, legal and technical component. In this regard, a number of individual national environmental laws, with the necessary strategic and policy support tools, will be needed to effectively manage each individual issue. Many different types of legal and institutional elements and mechanisms will also be required within these laws. The experience and knowledge gained from various studies point to the need to analyze a wide range of environmental law at each level for the region, to determine the effectiveness of the existing legal, policy and institutional system in managing all issues.

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<sup>56</sup> See IUCN Commission on Environmental Law, 2004, *Draft International Covenant on Environment and Development*, Third Edition: Updated Text, Prepared in cooperation with the International Council of Environmental Law, IUCN Gland and Cambridge

## B. IDENTIFYING THE INSTITUTIONAL ENVIRONMENT FOR SLM

13. This step identifies the principal methods, processes and procedures that are currently used within national institutions to implement and manage the issues referred to above.

### Natural resource management functions

14. The natural resource management issues indicate the type of environmental laws essential for their effective management. The analysis of the issues also indicate the many administrative, scientific and statutory functions and procedures that are involved in natural resource management functions, as follows:

15. At the international level, the various duties, principles, and obligations should be identified and classified according to a number of pre-selected functions, e.g. in relation to:

- (i) The links between Kyrgyzstan and Tajikistan to manage the environment;
- (ii) Preparing strategies and policies for SLM (e.g. National Action Programs under Article 8 of the Convention to Combat Desertification);
- (iii) Establishing strategies to prevent and reduce poverty;
- (iv) Preventing and controlling land degradation activities;
- (v) Balancing water and land use and managing ecosystems for future generations;
- (vi) Achieving sustainable use of natural resources;
- (vii) Importance of public participation and community-awareness programs;
- (viii) Establishing guidelines and standards to manage environmental hazards;
- (ix) Developing and implementing effective national environmental laws;
- (x) Developing guidelines and strategies for SLM.

16. At the national level, various duties, principles, and obligations should be identified and classified according to a number of pre-selected functions, e.g. in relation to:

- (i) Establishing linkages between different sectoral agencies;
- (ii) Preparing and implementing national strategies and policies for SLM;
- (iii) Overcoming and reducing rural poverty in the mountain environment;
- (iv) Controlling water and land pollution activities;
- (v) Balancing water and land use and managing ecosystems for future generations;
- (vi) Deriving sound ecological and technical practices for SLM;
- (vii) Establishing communication, capacity building and community programs;
- (viii) Establishing performance reporting and monitoring the effectiveness of SLM;
- (ix) Designing and implementing practical SLM technical programs;
- (x) Developing and implementing environmental laws for SLM;
- (xi) Developing strategies to implement local and national SLM projects.

### Natural resource management activities

The natural resource management functions should be classified into activities. The activities outlined below provide a general indication of the individual laws needed for SLM:

- (i) Natural-resources activities: e.g. soil management activities (cultivation, fertilizer application, land rehabilitation, sustainable land use, managing contaminated sites); water-management activities (water retention, irrigation systems, river-basin management, wetland management, control of water pollution); vegetation-management activities (biodiversity, burning, cutting, rehabilitation); ecosystem management (water and soil interactions, ecosystem functioning, ecosystem diversity).
- (ii) Administrative activities: e.g. land administration, water administration, committees, departmental structures and responsibilities, duty of care, special councils, advisory bodies, inter governmental and intra-governmental functions.

- (iii) Technical-based activities: e.g. activities related to land planning, water allocation, land zoning, establishing water and land quality standards, land survey, and land classification and water classification.
- (iv) Knowledge-based activities: e.g. activities related to research, investigation, and community participation, education and extension activities.
- (v) Social-based activities: e.g. women's rights in land use, and special education and assistance for disadvantaged groups, and poverty-alleviation programs.
- (vi) Legal-based activities: e.g. statutory rules, legal obligations (organizations, individuals, groups), land-use rights, water-use rights, limits of use, regulatory responsibilities, legal standards, enforcement (monetary and non-monetary), and dispute resolution (courts, mediation, counseling, arbitration).

### **C. IDENTIFYING ENVIRONMENTAL LAWS RELEVANT TO SLM OF MOUNTAIN ENVIRONMENT –INTERNATIONAL, REGIONAL AND NATIONAL / LOCAL LAWS**<sup>57</sup>

17. The identification of the key areas of law and individual laws commences with understanding the definition of SLM.
18. Note – the procedure outlined for the laws also applies to assembling and understanding SLM policy issues. See Section D.

#### **Definition of SLM**

19. Understanding the definition of SLM provides a guide to the types of law and legal and institutional system for implementation of SLM in the Pamir-Alai mountain environment.
20. The legal and institutional system for each country should be based on an integrated natural resource management approach, to address linkages between ecosystem functions and services and social, economic and land use systems. It should recognise that people and the natural resources they depend upon, directly or indirectly, such as land, water, and forests, are linked. The SLM approach is based on treating all elements of natural resources together to produce multiple benefits rather than treat each resource alone.
21. Sustainable Land Management is defined as:

*“Land management systems that combine technologies, policies and activities aimed at integrating socio-economic principles with environmental concerns to satisfy the five pillars of sustainable land management”*. The five pillars are:

- (i) To maintain or enhance production;
- (ii) To reduce the level of production risk;
- (iii) To protect the potential of natural resources, biological diversity and ecological integrity and prevent degradation of soil and water quality;<sup>58</sup>
- (iv) To be economically viable; and
- (v) To achieve social acceptability.

#### **Hierarchy of law**

22. The definition of SLM is a direct indicator to the areas of law and the individual laws which are relevant for the implementation of SLM:

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<sup>57</sup> Note –ANNEX II of the Project Brief contains a list of national materials for Kyrgyzstan and Tajikistan – but other legislative areas will also need to be investigated.

<sup>58</sup> For the PALM Project, “biological diversity and ecological integrity” has been added to the standard definition

- (i) Areas of law – are a primary body of law (e.g. law aimed at protection of the environment), and usually include many different individual laws (e.g. law on ecological examination, law on biosphere territories) that interact to achieve SLM - See Table 1 below;
- (ii) The different areas of law combine to form a system of law for SLM;
- (iii) For individual laws to be effective in implementing SLM they must contain specific types of legal and institutional ‘elements’ – See Module 4;
- (iv) A “legal and institutional system” - is the organisational environment and the body of laws and legal materials managed by the different organisations and administrative units responsible for SLM.

### Identifying the components of SLM definition

23. By breaking down the definition of SLM into its individual components, each single component will be used:

- (i) To confirm and finalise the SLM issues to be considered under a SLM framework;
- (ii) As an indicator of the individual laws needed to implement SLM.

24. Table 1 shows the components of the SLM definition, examples of issues for consideration in SLM and specific areas of law needed to manage the components and issues.

### Establishing the key issues for each component

25. Each separate component of the SLM definition is analysed to determine the type of issues associated with the implementation of each component of the definition.

26. As a guide, Table 1 sets out:

- (i) The relationship between individual components of the SLM definition;
- (ii) Various issues for consideration in SLM;
- (iii) Examples of specific areas of law to manage these issues;

27. Note – Each country should determine its specific issues of concern as they may vary between Kyrgyzstan and Tajikistan. The issues expressed in Table 1 are presented as a guide for the research and may be modified by each Legal Team, as appropriate.

**Table 1 - Components of SLM definition, issues for consideration in SLM and areas of law to manage these components and issues**

Components of definition	Issues for consideration in SLM	The system of law – i.e. examples of different areas of law at national level, to manage components of SLM definition and issues – <u>See Table 2</u> <sup>59</sup>
“A land management <u>system</u> ”	Requires: <ul style="list-style-type: none"> <li>• An approach that considers all aspects of the natural and human environment.</li> <li>• Every person is entitled to a healthy and ecologically sustainable environment.</li> <li>• Adopting an administrative system that enables cooperation between all parties.</li> </ul>	Relevant areas of law: <ul style="list-style-type: none"> <li>• Constitutional law</li> <li>• Environment protection laws</li> <li>• Environmental planning laws</li> <li>• Agricultural land use laws</li> <li>• Agriculture reform laws</li> <li>• Forest land management laws</li> </ul>

<sup>59</sup> See full name of area of law in Section E, Table 2; these areas of law were compiled from the list of laws for Kyrgyzstan and Tajikistan in Appendix 2

	<ul style="list-style-type: none"> <li>Monitoring the condition of natural resources to prevent deterioration and to improve ecosystem functioning.</li> <li>Ensuring all parties have equal access to information and can participate in decision-making.</li> <li>Ensuring the availability of adequate dispute resolution procedures.</li> <li>Creating transboundary responsibilities between respective administrative units.</li> </ul>	<ul style="list-style-type: none"> <li>Soil and water conservation laws</li> <li>Irrigation systems laws</li> <li>Pollution control laws</li> <li>Land administration laws</li> <li>Land tenure laws</li> <li>Agricultural commodities laws</li> <li>Civil matters laws</li> <li>Laws for women's role</li> <li>Mining activities laws</li> <li>Finance laws</li> </ul>
<p>"technologies, policies and activities aimed at integrating socio-economic principles with environmental concerns to satisfy the five pillars of sustainable land management"</p>	<ul style="list-style-type: none"> <li>Developing an integrated approach to natural resources management and the procedures that ensure all parties can apply the holistic approach.</li> </ul>	<ul style="list-style-type: none"> <li>Environment protection laws</li> <li>Environmental planning laws</li> <li>Agricultural land use laws</li> <li>Agriculture reform laws</li> <li>Forest land management laws</li> <li>Soil and water conservation laws</li> <li>Irrigation systems laws</li> <li>Pollution control laws</li> <li>Land administration laws</li> <li>Land tenure laws</li> <li>Agricultural commodities laws</li> <li>Civil matters laws</li> <li>Laws for women's role</li> <li>Mining activities laws</li> <li>Finance laws</li> </ul>
<ul style="list-style-type: none"> <li>To maintain or enhance production</li> </ul>	<p>Requires:</p> <ul style="list-style-type: none"> <li>Establishment of effective land management information systems.</li> <li>Establishment of adequate information systems about alternative agricultural production systems.</li> <li>Establishment of ecologically-based approaches to agricultural production, agro-ecological systems.</li> <li>Establishment of information systems on conservation agriculture techniques.</li> </ul>	<ul style="list-style-type: none"> <li>Environmental planning laws</li> <li>Agricultural land use laws</li> <li>Agriculture reform laws</li> <li>Irrigation systems laws</li> <li>Land tenure laws</li> <li>Agricultural commodities laws</li> </ul>
<ul style="list-style-type: none"> <li>To reduce the level of production risk</li> </ul>	<p>Requires:</p> <ul style="list-style-type: none"> <li>Establishment of crop production information systems.</li> <li>Establishment of adequate information systems about alternative agricultural production systems.</li> <li>Establishment of ecologically-based approaches to agricultural production, agro-ecological systems.</li> <li>Establishment of information systems on conservation agriculture techniques.</li> </ul>	<ul style="list-style-type: none"> <li>Environmental planning laws</li> <li>Agricultural land use laws</li> <li>Agriculture reform laws</li> <li>Forest land management laws</li> <li>Soil &amp; water conservation laws</li> <li>Laws for women's role</li> <li>Irrigation systems laws</li> <li>Agricultural commodities laws</li> <li>Finance laws</li> </ul>
<ul style="list-style-type: none"> <li>To protect the potential of natural resources, biological diversity and ecological integrity and prevent degradation of soil and water quality</li> </ul>	<p>Requires:</p> <ul style="list-style-type: none"> <li>An approach that considers all aspects of the natural and human environment.</li> <li>Every person is entitled to a healthy and ecologically sustainable environment.</li> <li>Protecting and conserving biodiversity</li> <li>Achieving ecological integrity</li> <li>Adopting an administrative system that enables cooperation between all parties in decision-making for land management.</li> <li>Monitoring the condition of natural resources and biodiversity to prevent deterioration and to improve functioning of ecosystems.</li> </ul>	<ul style="list-style-type: none"> <li>Environment protection laws</li> <li>Environmental planning laws</li> <li>Agricultural land use laws</li> <li>Forest land management laws</li> <li>Soil &amp; water conservation laws</li> <li>Nature conservation laws</li> <li>Land administration laws</li> <li>Land tenure laws</li> <li>Laws for women's role</li> </ul>

<ul style="list-style-type: none"> <li>To be economically viable</li> </ul>	<p>Requires:</p> <ul style="list-style-type: none"> <li>Establishing national strategies and policies that outline the role and importance of land management.</li> <li>Ensuring development of effective agricultural marketing systems.</li> <li>Ensuring effective information systems on agricultural commodities, pricing, and price support schemes.</li> <li>Ensuring monitoring and evaluation of economic values of different farming systems.</li> <li>Ensuring effective system to determine the economic costs of land degradation and benefits of conservation-based farming systems.</li> </ul>	<ul style="list-style-type: none"> <li>Agricultural land use laws</li> <li>Agriculture reform laws</li> <li>Land administration laws</li> <li>Land tenure laws</li> <li>Agricultural commodities laws</li> <li>Civil matters laws</li> <li>Laws for women's role</li> <li>Finance laws</li> </ul>
<ul style="list-style-type: none"> <li>To achieve social acceptability</li> </ul>	<p>Requires:</p> <ul style="list-style-type: none"> <li>Recognition of rights of humans to access and use of natural resources.</li> <li>Recognition that all humans have rights and responsibilities to maintenance of ecosystem function and conservation.</li> <li>Establishment of effective organization system to protect and manage ecosystems.</li> <li>Recognition of the needs of disadvantaged people, including indigenous people, poverty stricken people, traditional users of the land, women.</li> <li>Ensuring protection and security for owners and occupiers of land.</li> <li>Ensuring availability of financial assistance, and measures to facilitate long-term security of tenure for occupiers.</li> <li>Ensuring rights and duties of occupiers, adequate consent to reside on land, rights and duties of owners, transfer of land, right to choose farming systems, right to participate in land evaluation and planning activities.</li> <li>Establishment of effective dispute resolution procedures and mediation facilities.</li> </ul>	<ul style="list-style-type: none"> <li>Constitutional law</li> <li>Environment protection laws</li> <li>Environmental planning laws</li> <li>Agricultural land use laws</li> <li>Agriculture reform laws</li> <li>Forest land management laws</li> <li>Soil &amp; water conservation laws</li> <li>Irrigation systems laws</li> <li>Pollution control laws</li> <li>Land administration laws</li> <li>Land tenure laws</li> <li>Agricultural commodities laws</li> <li>Civil matters laws</li> <li>Laws for women's role</li> </ul>

### Identifying the areas of law relevant to the components of SLM and SLM issues

28. Once the individual issues have been identified at each level, the areas of law used to manage these issues are then listed and categorised - See Tables 2 and 3.

29. For each area of law, a list is compiled for the specific international, regional and national laws that relate to the different areas of law and which are associated with the implementation of the different components of SLM.

### International treaties and other agreements

30. With the body of international law that focuses on the resolution of global and regional environmental problems, new principles have emerged regarding state responsibility for protection of the environment, cooperation between states in dealing with environmental problems, and the need for an ecosystem approach towards environmental protection. These legal developments have placed state responsibility for protecting the local, regional and global environment high on the international agenda (IUCN 2000; WSSD 2002a, b, c). In the Asian region, there has been a varied response to these international issues (Boer et al. 1998; Mottershead 2002).

### Binding and non-binding legal instruments

31. The two principal categories of international environmental law are represented in Central Asian region, i.e. binding and non-binding instruments (United Nations 1999). Each Legal

Task Force should identify the objectives, roles and responsibilities of each instrument and its application for SLM in the Pamir-Alai region. The role of each law in managing ecological complexities of the mountain environment of Kyrgyzstan and Tajikistan, and their technical ability to implement international interests in SLM, should be assessed by the Legal Task Forces.

32. Many multilateral environmental treaties, protocols and agreements introduced in the past three decades have various environmental responsibilities related to SLM in the region – including:

- (i) Flora and fauna conservation;
- (ii) Pollution management;
- (iii) Regional conservation protection;
- (iv) Settling disputes;
- (v) Liability in relation to environmental damage;
- (vi) Protection of world cultural and natural heritage;
- (vii) Endangered species;
- (viii) Landscape protection

33. Appendix 3 is a list of international and regional laws that are relevant to SLM and which could be consulted by the Legal Task Forces.<sup>60</sup>

### **National Legislation**

34. The legal and institutional elements that are essential to implement the functions and activities for SLM at the national level exist across a wide range of law associated with the management of the natural environment in each country. This system of law will contain the legal elements, legal mechanisms, and ecological and scientific concepts, definitions and standards required to manage multifunctional and multidisciplinary SLM issues.

### **Areas of Law**

35. The following primary areas of law (i.e. total system of law) are applicable (See Annexes II and III of Project Brief):

- (i) Constitutional law (e.g. sets out basic legal and human rights to natural resources);
- (ii) Environmental planning law (e.g. environmental policy, land zoning, land allocation);
- (iii) Pollution control law (e.g. water quality and pollution standards);
- (iv) Forestry law (e.g., planning and management of forest and watershed management);
- (v) Plantation and reforestation laws (e.g. land rehabilitation methods);
- (vi) Soil conservation law (e.g. soil erosion control and managing soil erosion hazards);
- (vii) Water conservation law (e.g. watershed protection and water classification);
- (viii) Water use law (e.g. water allocation, water supply and irrigation schemes);
- (ix) Environmental protection law (e.g. environmental impact assessment and environmental standards);
- (x) Mining law (e.g. environmental control over mining activities and land rehabilitation);
- (xi) Indigenous people's and customary law (e.g. traditional land-use rights and preservation of traditional knowledge);

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<sup>60</sup> For overview of international agreements related to mountain regions, see A. Fodella and L. Pineschi, 2000, *Environment Protection and Sustainable Development of Mountain Areas*, Preliminary Report presented at the Seminar "Mountains and the Environment: Ten Years after Rio", Courmayeur, Italy, 16-17 June 2000; O. J Lynch and G. F. Maggio, 1997, *Mountain Laws and Peoples: Moving Towards Sustainable Development and Recognition of Community-based Property Rights: A General Overview of Mountain Laws and Policies with Insights from the Mountain Forum's Electronic Conference on Mountain Policy and Law*, the Mountain Institute, Center for International Environmental Law and Mountain Forum. Franklin, West Virginia

- (xii) Agriculture land-use law (e.g. controls over crops, livestock, pesticide and chemical applications);
- (xiii) Agriculture reform (e.g. distribution of agricultural land, irrigation schemes and resettlement schemes);
- (xiv) Protected area and nature conservation law (e.g. protection of natural and sensitive areas, protection of wild animals and plants);
- (xv) Land administration and tenure law (e.g. land allocation, land-use rights, leaseholder agreements and conditions of land use);
- (xvi) Legislation that provides for women's rights, poverty alleviation and financial management;
- (xvii) Civil laws, criminal laws (e.g. dispute settlement, pecuniary actions, statutory notice powers and prosecution), and various laws that deal with law courts.

### Individual national laws

36. For each area of law an evaluation and search should be carried out by each Legal Task Forces to prepare a list of individual laws that relate to these areas of law and which are necessary to implement the components of SLM and the issues - see Tables 2 (Kyrgyzstan) and 3 (Tajikistan).

37. The combination of the areas of law and all of the individual laws make up the legislative system for SLM.

**Table 2 –Kyrgyzstan legal system for SLM: Areas of law and individual laws** (list should be update for the analysis)

Examples of <u>Areas of Law</u> (the combination of the different areas of law form a <u>system of law</u> )	Examples of <u>Individual Laws</u> <sup>61</sup>
<b>Constitutional law</b> (e.g., sets out basic legal and human rights) - CL	<ul style="list-style-type: none"> <li>• Constitution and laws relating to the constitution</li> </ul>
<b>Environmental planning law</b> (e.g., environmental policy, land zoning and land allocation) - EPL	<ul style="list-style-type: none"> <li>• Resolution of the Government on Approval of Statute on State Environmental Review in the Kyrgyz Republic, April 12, 1994, No. 212</li> <li>• National Environmental Action Plan, 1995</li> <li>• From February, 24, 2000 N 45 "On protection of the population and territories against extreme situations natural and man-caused character"</li> </ul>
<b>Pollution control law</b> (e.g., water quality and pollution standards) - PCL.	<ul style="list-style-type: none"> <li>• Resolution of the Government on the National Register of Potentially Toxic Chemicals (NRPTC), June 13, 1995, No. 27</li> <li>• Code KR from April, 15, 1994 N 1483 XII "Air code of the Kyrgyz Republic"</li> </ul>
<b>Forestry law</b> (e.g., planning and management of forestland and watershed management) - FL	<ul style="list-style-type: none"> <li>• The Forest Code of the Kyrgyz Republic, July 1, 1993</li> <li>• Forest Code of the Kyrgyz Republic, July 8, 1999.</li> <li>• Code KR from July, 8, 1999 N 66 "On forestry"</li> </ul>
<b>Soil conservation law</b> (e.g., soil erosion control and managing soil erosion hazards) - SCL	<ul style="list-style-type: none"> <li>• Law on Accession of the Kyrgyz Republic to the Convention to Combat Desertification in Countries Experiencing Serious Draught and/or Desertification, Particularly in Africa, July 21,</li> </ul>

<sup>61</sup> Individual laws taken from Project Brief Annex II, *Environmental Legislative Framework, Kyrgyz Republic*; and list of laws 'Legal regulation and texts for the Kyrgyz Republic of preservation of the environment, wildlife management and ecological safety sphere'

	1999
<b>Water conservation law</b> (e.g., watershed protection and water classification) – WCL	<ul style="list-style-type: none"> <li>• Law on Water, January 14, 1994</li> </ul>
<b>Water use law</b> (e.g., water allocation, water supply and irrigation schemes) – WUL	<ul style="list-style-type: none"> <li>• Law on Water, January 14, 1994</li> <li>• Law on Water Users Association, March 12, 2002, No. 35</li> <li>• Law KR from March, 25, 1999 N 33 “On drinking water”</li> <li>• Law KR from March, 15, 2002 N 38 “On associations of water users”,</li> <li>• Decree of the President KR from January, 3, 1995 N УП-“On urgent measures on improvement of a condition to irrigational system in Kyrgyz Republic</li> </ul>
<b>Environmental protection law</b> (e.g., environmental impact assessment and environmental standards) - EPtL	<ul style="list-style-type: none"> <li>• Law on Nature Protection, April 17, 1991</li> <li>• Resolution of the Government on the Statute on State Control in the Field of Nature Protection and Natural Resources Use, December 25, 1992, No. 630</li> <li>• Law on Atmosphere Protection, 12 June, 1999 (replaced the 1981 Law)</li> <li>• Law on Environment Protection, 16 June, 1999 (supersedes the 1991 Law), No. 53</li> <li>• Law on Ecological Expertise (Environmental Review), June 16, 1999</li> <li>• Law on Biosphere Territories, 1999</li> <li>• Law on Animal World, 1999</li> <li>• Law KR from May, 28, 1994 N 1561- XII “On especially protected natural territory”,</li> <li>• Law KR from June, 9, 1999 N 48 “On biosphere territories in Kyrgyz Republic</li> <li>• Law KR from June, 12, 1999 N 51 “On protection atmospheric air”,</li> <li>• Law KR from June, 16, 1999 N 53 “On protection environmental”,</li> <li>• Law KR from June, 16, 1999 N 54 “On ecological examination”,</li> <li>• Decision of Government KR from July, 21, 2001 _ 369 “On measures on performance of the Frame convention of the United Nations On climate changing</li> </ul>
<b>Protected area law</b> (e.g., protection of natural and sensitive landscapes) - PAL	<ul style="list-style-type: none"> <li>• Resolution of the Government on the State Committee of the Kyrgyz Republic for Nature Protection, August 11, 1995, No. 349</li> </ul>
<b>Mining law</b> (e.g., environmental control over mining activities and land rehabilitation) - ML	<ul style="list-style-type: none"> <li>• Law on the Mineral Wealth, December 15, 1992</li> <li>• Law on Tailings Ponds and Dumps, 2001</li> <li>• Law on Wastes of Production and Consumption, 2001</li> <li>• Law KR from June, 26, 2001 N 57 “On waste and mountain dumps”</li> </ul>
<b>Indigenous people’s and customary law</b> (e.g., traditional land-use rights and preservation of traditional knowledge) - IPL	
<b>Agriculture land-use law</b> (e.g., controls over crop and livestock, pesticide and chemical applications) - AL	<ul style="list-style-type: none"> <li>• Resolution on Agricultural Land Monitoring in the Kyrgyz Republic, March 1, 1999, No. 115</li> <li>• Law KR from June, 27, 1996 N 26 “On the quarantine of plants”,</li> <li>• Law KR from June, 19, 1997 N 83 “On seeds”,</li> <li>• Law KR from June, 25, 1997 N 39 “On fish farming”,</li> <li>• Law KR from September, 29, 2000 N 80 “On agricultural census”</li> <li>• Law KR from January, 11, 2001 N 4 “On management of the grounds agricultural purpose”</li> <li>• Law KR from June, 20, 2001 N 53 “On protection and use</li> </ul>

	<p>vegetation.</p> <ul style="list-style-type: none"> <li>• Law KR from April, 25, 2002 N 87 “On base rates of the ground tax for using agricultural areas, adjoining the farm and the country ground areas, ground settlements and not agricultural purpose on 2003”</li> <li>• Law KR from August, 12, 2003 N 195 “On the state purchases of agricultural production for support agricultural commodity producers”;</li> <li>• Decision of Government KR from March, 1, 1999 N 115 “On monitoring of the grounds of agricultural purpose in KR</li> </ul>
<b>Agriculture reform</b> (e.g., distribution of agricultural land, irrigation schemes and resettlement schemes) - ARL	<ul style="list-style-type: none"> <li>• Law on Enacting the Land Code of the Kyrgyz Republic, June 2, 1999, No. 46</li> <li>• Law of the Kyrgyz Republic on Peasant (individual) Farms, June 3, 1999</li> </ul>
<b>Land administration and tenure law</b> (e.g., land allocation, land-use rights, leaseholder agreements and conditions of land use)- LAL	<ul style="list-style-type: none"> <li>• The Land Code of the Kyrgyz Republic, July 11, 1991</li> <li>• Law on Enacting the Land Code of the Kyrgyz Republic, June 2, 1999, No. 46</li> <li>• Law of the Kyrgyz Republic on Peasant (individual) Farms, June 3, 1999</li> <li>• Resolution of the Government on Financial Responsibility for Damage Caused by Improper Land Use, July 19, 1993, No. 317</li> <li>• Law on Protected Territories, May 28, 1994</li> <li>• Code KR from June, 2, 1999 N 45 “Land code of the Kyrgyz Republic”</li> <li>• Law KR from December, 7, 2001 N 104 “On base rates of the ground tax for using agricultural areas, adjoining the farm and the country ground areas, the grounds of settlements and not agricultural purpose on 2002”</li> <li>• Law KR from November, 1, 2002 N 151 “On mountain territories of the Kyrgyz Republic</li> </ul>
<b>Legislation that provides for women’s rights</b> – WL	
<b>Legislation that provides for poverty alleviation</b> - PL	
<b>Legislation that provides for financial management</b> - FML	<ul style="list-style-type: none"> <li>• President’s Decree on Territorial and Republican Funds of Protection of Nature, July 21, 1992</li> </ul>
<b>Criminal law and various laws that deal with the law courts</b> (e.g., dispute settlement, pecuniary actions, statutory notice powers and prosecution) - CL	<ul style="list-style-type: none"> <li>• Resolution of the Government on the Approval of Tariff System for the Calculation of Fines Imposed for Damage Inflicted on State Game Resources and Illegal Use or Destruction of Vegetation, August 17, 1992, No. 402</li> <li>• Resolution of the Government on Financial Responsibility for Damage Inflicted on Forest Resources, August 17, 1992, No. 403</li> <li>• Law KR from March, 10, 2002 N 32 “On to the rate of a payment for environmental contamination (emissions, dumps of polluting substances, accommodation of waste products)</li> </ul>

**Table 3 – Tajikistan Legal System for SLM: Areas of Law and Individual Laws** (list should be update for the analysis)

Examples of <u>Areas of Law</u> (the combination of these different areas of law form a <u>system of law</u> )	Examples of <u>Individual Laws</u> <sup>62</sup>
<b>Constitutional law</b> (e.g., sets out basic legal and human rights) - CL	<ul style="list-style-type: none"> <li>• Constitution and laws relating to the constitution</li> <li>• Constitutional Law of the RT on Government of the Republic of Tajikistan 2001</li> </ul>
<b>Environmental planning law</b> (e.g., environmental policy, land zoning and land allocation) - EPL	<ul style="list-style-type: none"> <li>• 'About the state programme of ecological education and training of the population of the Republic of Tajikistan until 2000 and for the period until 2010', 1996</li> <li>• 'About measures on realisation of the state programme of ecological education and training of the GBAO population until 2000 and on prospect until 2010,' 1996</li> <li>• 'About the statement of the state ecological programme of Republic of Tajikistan for 1998-2008', 1997</li> <li>• 'About measures on the performance of the state ecological programme of the Republic of Tajikistan' 1998</li> <li>• 'About the approval of the complex plan of the basic measures on ecological migration for 1999', 1999</li> <li>• 'About the approval of the National plan of activity on the environment hygiene in the Republic of Tajikistan', 2000</li> <li>• Law on Land Assessment 2001</li> <li>• Decree on Allocating 50 thousand ha of land for individual household food plots of citizens 1995</li> <li>• Procedure for Changing the category of Land 1994</li> </ul>
<b>Pollution control law</b> (e.g., water quality and pollution standards) - PCL.	<ul style="list-style-type: none"> <li>• State Sanitary Control Act 1994</li> <li>• Air Protection Act 1996</li> <li>• Law on Public Health Care 1997</li> <li>• Law on Protection of Atmospheric Air 1996</li> </ul>
<b>Forestry law</b> (e.g., planning and management of forestland and watershed management) - FL	<ul style="list-style-type: none"> <li>• Forest Code 1994</li> </ul>
<b>Soil conservation law</b> (e.g., soil erosion control and managing soil erosion hazards) - SCL	<ul style="list-style-type: none"> <li>• Law on Soil 1994</li> <li>• Presidential Decree on the Accession of the Tajikistan to the Convention to Combat Desertification in Countries Experiencing Serious Draught and/or Desertification, Particularly in Africa 1998</li> <li>• "About the Statement of the National Action Programme (NAP) to Combat Desertification 2001, No. 598</li> </ul>
<b>Water conservation law</b> (e.g., watershed protection and water classification) – WCL	<ul style="list-style-type: none"> <li>• Water Code 1993</li> <li>• Water Code 2001</li> <li>• Water Code 2000</li> </ul>
<b>Water use law</b> (e.g., water allocation, water supply and irrigation schemes) – WUL	<ul style="list-style-type: none"> <li>• Water Code 1993</li> <li>• Water Code 2001</li> <li>• Water Code 2000</li> <li>• "Programme for Improvement of Irrigation Lands 1998-2003, 1997</li> </ul>
<b>Environmental protection law</b> (e.g., environmental impact assessment and environmental standards) - EPtL	<ul style="list-style-type: none"> <li>• Nature Conservation Act 1993</li> <li>• Resolution on the Ministry of Environment 1992</li> <li>• Law on Conservation and Utilisation of Wildlife 1994</li> <li>• Resolution on State Control of Environmental Protection and Use of Resources 1994</li> </ul>

<sup>62</sup> Individual laws taken from Project Brief Annex III, *Environmental Legislative Framework, Republic of Tajikistan*; Table of Land Laws [www.landreform-tajikistan.tj/](http://www.landreform-tajikistan.tj/)

	<ul style="list-style-type: none"> <li>• Resolution on State Ecological Review 1994</li> <li>• Specially Protected Natural Features Act 1996</li> <li>• Resolution on State Ecological Programme 1997</li> <li>• Law on Protection and Use of Fauna 1994</li> <li>• Law on Plant Quarantine 2000</li> </ul>
<b>Protected area law</b> (e.g., protection of natural and sensitive landscapes) - PAL	<ul style="list-style-type: none"> <li>• Specially Protected Natural Features Act 1996</li> <li>• “About the State Control of Use and Protection of Grounds in the Republic of Tajikistan 1997, No. 294</li> <li>• ‘About land allotment for the Tajik National Park’ 2001</li> <li>• Law on Nature Protection 1993</li> </ul>
<b>Mining law</b> (e.g., environmental control over mining activities and land rehabilitation) - ML	<ul style="list-style-type: none"> <li>• Mineral Resources Act 1994</li> <li>• Law on Mineral Wealth 1996</li> <li>• Law on Competition and Restriction of Monopoly 2002</li> </ul>
<b>Indigenous people’s and customary law</b> (e.g., traditional land-use rights and preservation of traditional knowledge) - IPL	<ul style="list-style-type: none"> <li>• Law on Self Government in Settlements and Villages 1994</li> </ul>
<b>Agriculture land-use law</b> (e.g., controls over crop and livestock, pesticide and chemical applications) - AL	<ul style="list-style-type: none"> <li>• “About Measures on the Preservation and Improvement of Land Fertility and the Natural Environment” 1995</li> <li>• “Programme to Increase Productivity of Grain Cultures and Manufacturing of Grain in the Republic of Tajikistan for 2001-2005, 2000</li> <li>• “Medium-term Programme on Priority Directions and Strategy for Development of Agriculture in the Republic of Tajikistan until 2005, 2000</li> <li>• Law on Dehkan Farms 1992</li> <li>• Law on Dehkan farms 2002</li> <li>• Law on Consumer Cooperative in the RT 1992</li> <li>• Law on Breeding Affairs in Husbandry 1994</li> <li>• Law on Certification of Goods and Services 1996</li> <li>• Law on Selection Achievements on Agricultural Crops 1995</li> </ul>
<b>Agriculture reform</b> (e.g., distribution of agricultural land, irrigation schemes and resettlement schemes) - ARL	<ul style="list-style-type: none"> <li>• “Programme on the Economic Transformations of Agriculture in the Republic of Tajikistan” (1995), No. 73</li> <li>• “About Reorganization of the Agricultural Enterprises and Organization” 1995</li> <li>• Law on Land Reform 1992</li> <li>• Resolution of the Council of Ministers on Measures to Conduct Land Reform 1992</li> </ul>
<b>Land administration and tenure law</b> (e.g., land allocation, land-use rights, leaseholder agreements and conditions of land use)- LAL	<ul style="list-style-type: none"> <li>• Law on land charges 1992</li> <li>• Land Code 1996</li> <li>• Tax Code 1998</li> <li>• Law on Land Valuation 2001</li> <li>• Law on Land Management 2001</li> <li>• Land Code 1996</li> <li>• Law on Amending the Land Code 2001</li> <li>• Law on Land Tenure 2001</li> <li>• Law on Rent in Tajik SSR 1990</li> <li>• Law on Self Government in Settlements and Villages 1994</li> <li>• Law on State Notary Offices 1997</li> <li>• Civil Code of the Republic of Tajikistan 1996</li> <li>• Law on Establishing Indexation Coefficient on Land Tax Rates 1999</li> </ul>
<b>Legislation that provides for women’s rights – WL</b>	<ul style="list-style-type: none"> <li>• Labor Code of the Republic of Tajikistan</li> </ul>
<b>Legislation that provides for poverty alleviation - PL</b>	<ul style="list-style-type: none"> <li>• Civil Code of the Republic of Tajikistan 1996</li> <li>• Labor Code of the Republic of Tajikistan</li> </ul>
<b>Legislation that provides for financial management - FML</b>	<ul style="list-style-type: none"> <li>• Civil Code of the Republic of Tajikistan 1999</li> </ul>

<p><b>Civil law, Criminal law and various laws that deal with the law courts</b> (e.g., dispute settlement, pecuniary actions, statutory notice powers and prosecution) - CL</p>	<ul style="list-style-type: none"> <li>• Resolution on the unauthorised collection of organic material (e.g. medicinal plants / wild species) (1990)</li> <li>• Code about Administrative Offences 2000</li> <li>• Law on Augmenting the Responsibility for Damage Caused to Plantations. Agricultural Crops, Mulberries, and Trees by Cattle 1993</li> <li>• Law on Amending the Civil Code 2000</li> </ul>
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38. Example 1 below provides an alternate way to summarise individual laws from a number of primary areas of law for the Yellow River Basin China (provincial level).

### Example 1 - Summary of a legislative system for the Yellow River Basin, China

National Areas of Law	Water Pollution Prevention and Control Law	Water Law	Water & Soil Conservation Law	Flood Control Law
<b>National Regulation</b>	WPPCR	WTP RCMR SCMR WSACR WSCR	W&SCLR	CFDAM
Individual Laws within Areas of Law	Water Pollution Prevention & Control Law	Water Law	Water & Soil Conservation Law	Flood Control Law
<b>Qinghai</b>		WLP WTLR ALWRFRI	W&SCLP	
<b>Gansu</b>		WLP WTLR RCMRP ALUWRFRI	W&SCLP	FCLP
<b>Sichuan</b>		WLP WT&WRFP RCMRP AUWSRA	W&SCLP	
<b>Ningxai</b>		WLP WTLR AUWSR	W&SCLP	
<b>Inner Mongolia</b>	WPPCYR	WLP WTLR AUWSR	W&SCLP	FCLP
<b>Shaanxi</b>		RCMR WRAR ALUWRFRI	W&SCLP	FCLP
<b>Shanxi</b>		WRAR RCMR AUWRA AUWSSR	W&SCLP	
<b>Henan</b>		WLP WT&WRFP RCMRP YRCMR	W&SCLP	FCLP
<b>Shandong</b>	WPPCR	WRAR RCMRP YRCMR WTP ALUWRFRI	W&SCLP	FCLP

## D. PREPARING THE FRAMEWORK OF SLM POLICY

39. Table 1 should be used to determine the main policy issues and develop a perspective on the current principal areas of policy, individual policies, and policy system of Kyrgyzstan and Tajikistan.
40. Note –the transboundary policy analysis is covered in Module 4 (Section B) where the procedure in Table 6 is applied to prepare the framework on transboundary policy.

### Procedure

41. The procedure followed is:

- (i) Use the issues outlined in column 2 of Table 1 to make a list of the different areas of policy to manage SLM (column 3);
- (ii) The areas of policy are then used to prepare tables of same format to Tables 2 and 3 (for the laws) for the individual SLM related policies of Kyrgyzstan and Tajikistan.

## E. USEFUL REFERENCES AND BACKGROUND INFORMATION SOURCES:

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## MODULE 4: ANALYSIS OF LEGISLATIVE AND POLICY MATERIALS AGAINST ESSENTIAL ELEMENTS FOR SLM OF MOUNTAIN ENVIRONMENT

### Module 4 covers:

- A. Determining the capacity of existing legislative system to achieve SLM (this is an important aspect of the Methodological Research Guidelines because the role of similar areas of law and individual laws would vary between Kyrgyzstan and Tajikistan);
- B. Determining the regional/ 'transboundary' or 'common boundary' issues;
- C. Review options for management of "common boundary" issues under different joint jurisdictional arrangements;
- D. Useful references and background information sources.

### A. DETERMINING CAPACITY OF EXISTING LEGISLATIVE SYSTEM TO ACHIEVE SLM

1. It is essential that adequate legal and institutional "essential elements" or norms are present within the regional natural resource management governance framework of Kyrgyzstan and Tajikistan for SLM.<sup>63</sup>
2. Essential elements" are the basic, essential components of a legal and institutional system (which is made up from the individual elements of the individual laws in the system). An element is 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 (which is a direct statutory or 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 some form of legally based action to achieve SLM.
3. Each law will include various "essential elements" in a format that gives the particular institutions the mandate, obligation and power to invoke natural resource management responsibilities and activities for SLM. The essential elements are within the individual laws that make up the national legal and institutional system.
4. Within an individual law the essential elements can be used singularly, or in combination with other legal mechanisms or principles, to invoke a legally based action to achieve one or more aspects of SLM.

### Basic essential elements

5. Seventeen basic "essential elements" are outlined in the Methodological Research Guidelines. These are the core "essential elements" used to determine if an individual law and the areas of law have the capacity to achieve SLM.
6. The seventeen essential elements in the Guidelines are derived from evaluating a substantial body of national and international environmental law on integrated natural resource management, ecosystem management, and law concerning "ecologically sustainable development" in China, Southeast Asia and other parts of the world.<sup>64</sup> Their reliability in evaluating international, regional and local legislative systems and to establish where similar legal and institutional principles occur within a broad range of law has been verified through many studies (refer Module 1).

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<sup>63</sup> Bodansky, D, 1995, 'Customary (and not so Customary) International Environmental Law', *Indiana Journal of Global Legal Studies*, 3, 1:105; Hannam, I.D., with B.W. Boer. 2002. *Legal and Institutional Frameworks for Sustainable Soils. A Preliminary Report*. IUCN Environmental Law Program, Environmental Law and Policy Paper No 45

<sup>64</sup> *Supra*, Hannam and Boer 2002; Hannam and Boer 2004

7. The seventeen basic essential elements should be varied or modified by the Legal Task Forces, as required, to ensure they adequately provide for all legal and institutional circumstances relevant to the application of SLM in Kyrgyzstan or Tajikistan.
8. The two main applications of the seventeen essential elements to Kyrgyzstan and Tajikistan include:<sup>65</sup>
  - (i) To assess the capacity of existing laws of the two countries to meet prescribed standards of performance for SLM<sup>66</sup> (depending on the assessed capacity of the law to achieve these standards, additional elements may be formulated);
  - (ii) To guide the reform of an existing law for SLM or develop new legislation for these countries based on SLM principles for the regional natural resource management governance framework. For a law to be effective, each legal and institutional element must have the capacity to achieve a prescribed level of management for SLM.

### Application

9. The manner and degree in which each of the individual “essential elements” is applied will vary according to the particular type of legal mechanism encountered and its jurisdictional role in Kyrgyzstan or Tajikistan. For example, an international law may have a provision for dispute resolution but the actual implementation of this provision within either Kyrgyzstan or Tajikistan may not rely on, or be influenced by, the existence of similar provisions within a law of the state.
10. The seventeen “essential elements” have been successfully used in a number of jurisdictions to determine the capacity of international, regional and national level law for sustainable natural resource management.

**Table 4 - Legal and institutional elements for analysis of laws policies for SLM**

ELEMENT	COMMENT
<b>1. General intent</b>	<p>Includes a clearly identifiable statement of the intended purpose of a legal instrument, which has a direct relationship to the general objective for SLM.</p> <p>It may be expressed either as a single or multi-functional statement, but may also be a series of independent statements that collectively convey the intent and purpose of the legal instrument.</p>
<b>2. Jurisdiction</b>	<p>Includes various statements or functions in a legal instrument that establish its interest over ecological management in a geographical and legal sense, including jurisdiction of a province/region, or of a specific organisation, and which create a legal right to engage in some aspect of ecological protection and management.</p> <p>It is often expressed as a sphere of authority and the territorial range of authority, and is synonymous with power, authority, or control.</p>

<sup>65</sup> The ‘essential elements’ are derived through an evaluation of legal and ecological principles that, in combination, aim at achieving a desired level or standard of performance in SLM

<sup>66</sup> “Law” in this context means a body of law enacted by a legislature, eg, an act, decree, regulation, code, or other formal legal instrument that is legally enforceable. It can include agreements or covenants that are expressed to be legally binding

<b>3. Responsibility</b>	<p>Includes the various functions that establish or enable a commitment to an objective of SLM, and obligations, which establish a level of accountability to particular stated functions.</p> <p>There may be a division of responsibility in an instrument, and stated responsibilities may often directly express, create or invoke circumstances of “use rights” or “user rights”.</p>
<b>4. Goals and Objectives</b>	<p>Includes a group of statements that express a policy position or strategic position in a legal instrument.</p> <p>Together they express a determination to engage in and to achieve SLM at a general, and/or technically specified level.</p> <p>The goals and objectives may be expressed in a single or multi-functional statement, but may comprise a number of multi-functional statements.</p>
<b>5. Definitions</b>	<p>Includes the presence of statements or terminology that defines or describe the meaning of key words, phrases or terms in a form that directly relate to the operation of the legal instrument.</p> <p>They may also convey intent to engage in a prescribed level of action, or achieve a particular standard for SLM.</p> <p>Definitions are used to interpret the legislation, in either a general sense of understanding, scope and application, or in a direct, technical operational sense relating to the role in the implementation of the law.</p>
<b>6. Duty of Care</b>	<p>Includes the presence of terminology, functions, and activities, policies and strategic materials that convey a legal and ethical commitment to take reasonable and practical steps to achieve SLM.</p> <p>They may create a duty on the part of a person, a number of persons, a corporation or levels of administration, or a statutory entity, to comply with the law, in a prescribed manner, and can be in the form a general duty of care or a specific statutory duty of care.</p>
<b>7. Hierarchy of Responsibility</b>	<p>Includes the terminology and functions that create a responsibility and commitment to achieve SLM through a number of different levels of administration, and with a variety of administrative functions.</p> <p>Through the structure of an organizational or institutional “hierarchy”, particular “rights” and “obligations” may be established at respective levels of administration for individuals or for specific classes of people.</p>
<b>8. Institutional</b>	<p>Includes the presence of functions, statements, objectives and goals that give a particular organisation or related administrative bodies, a direct responsibility for SLM.</p> <p>This usually occurs via a number of mechanisms including the policies and objectives of the organisation, and the rules and regulations, incentive mechanisms, accountability mechanisms, norms, traditions, plans and procedures, practices and customs that govern its operations.</p>
<b>9. Policy</b>	<p>Includes statements about an intended course of action, and may include statements of an attitudinal, principled or strategic nature, and/or the existence of any function or activity that enable the development of materials for these purposes, to achieve SLM.</p> <p>It also includes statements referring to the need for a review or reform of legislation, including a commitment to the preparation of particular types of legal instruments and</p>

	the timing of such actions.
<b>10. Education</b>	Includes functions, activities, policies or statements relating to educational activities aimed at achieving SLM. These would include technical training courses, skills development programs, the preparation and dissemination of materials for these activities.
<b>11. Research and investigation</b>	Includes functions, activities and programs that encourage or specify a commitment to a systematic investigation into activities that produce information and knowledge of a scientific, technical, sociological, economic or cultural nature aimed at SLM.
<b>12. Community Participation</b>	<p>Refers to the presence of functions, activities, and programs in a legal instrument that enable interaction with a community of people, to engage in the undertaking of various participatory activities relating to SLM.</p> <p>It includes references to general capacity-building, improving awareness, knowledge and skills, problem identification, or some form of technical or practical activity related to SLM.</p> <p>It may also include a mechanism for stakeholders to have formal communication with an organisation on problem identification; problem-solving, decision-making and consultative processes aimed at SLM.</p>
<b>13. Land Planning and SLM</b>	<p>Includes the presence of statements, functions, activities or programs in a legal instrument that enable SLM to be applied in land planning activities.</p> <p>It includes references to technical surveys, data base development, assembling knowledge on the ecological distribution of natural resources, the ecological condition of natural resources, preparing standards for use of natural resources, natural resource evaluation, classification, environmental assessment, plan development, land zoning, references to plan implementation, monitoring plans and actions, and the preparation of explanatory materials.</p>
<b>14. Land Management and SLM</b>	<p>Includes the presence of statements, functions, activities and programs in a legal instrument that enable the preparation and direct implementation of SLM in land management programs.</p> <p>It includes references to specific types of ecosystem conservation works, projects and design criteria, the construction and implementation of the works and projects, and monitoring the outcome of implementation.</p> <p>This element also considers processes for the development of environmental standards, limits of use, including the criteria and matters of concern for their development, and specifies the implementation process.</p>
<b>15. Finance</b>	<p>Includes the presence of statements, functions, activities or programs in a legal instrument that provide for the financing of projects or activities, or raising money for SLM implementation.</p> <p>It may include reference to budgetary procedures, specific appropriation funds and land degradation control funds.</p>
<b>16. Implementation and Enforcement</b>	<p>Includes the presence of statements, functions, or mechanisms in a legal instrument that must be observed, or complied with at a defined standard, or in the form of a direct obligation, or prescribed standard of behaviour.</p> <p>It is often referred to as a regulation, or a regulatory role. It may be through a legal notice or direction from a regulator or through a court order.</p> <p>It also includes the procedure to carry out this role, and to regulate certain activities that are directly beneficial to SLM.</p>

	<p>Enforcement functions may include responsibilities to identify particular types of offences, investigate certain matters, gather evidence, take direct remedial actions, confiscate certain items, and initiate prosecution.</p> <p>The legislation may also set out the range and limits of monetary penalty for specified offences and provision for appeal.</p>
<b>17. Dispute resolution</b>	<p>Includes the presence of statements, functions, activities or programs, in a legal instrument that enables the settlement of a conflict, or a disagreement between parties, generally over access to, or a perceived right of access to natural resources or the use of natural resources. Various processes and facilities are available for dispute resolution including conciliation processes, mediation processes, arbitration and the courts.</p> <p>These procedures normally include provisions for appeal.</p>

### The legislative role of SLM

11. To understand the actual role of SLM within the legislative systems of Kyrgyzstan and Tajikistan it is appropriate that a Table be prepared that outlines the relationship between the components of the SLM definition and which of the seventeen essential elements are needed to implement each particular component of the definition.
12. Table 5 should then be used by the Legal Task Forces as a guide when determining the capacity of the individual laws and areas of law. This Table depicts the specific essential elements that should normally be present within the legislative systems of Kyrgyzstan or Tajikistan to adequately manage the requirements of SLM.
13. At a later point in the legislative analysis a comparison can be made between the profiles of each individual law and Table 5 to determine which individual laws contribute to each aspect of the SLM definition.

**Table 5 - Relationship between SLM components and essential elements**

Components of SLM definition	Relationship between each SLM component and the seventeen elements <sup>67</sup>	Specific elements that are required to implement the SLM issues associated with each component of the definition of SLM <sup>68</sup>
"A land management <u>system</u> "	<ul style="list-style-type: none"> <li>• All seventeen elements are needed to successfully implement SLM.</li> <li>• GI, R, J, G&amp;O, D, DoC, P must comprehensively provide for an SLM approach.</li> <li>• HR and I must provide for an administrative system that enables effective cooperation and coordination between all parties.</li> <li>• I, R&amp;I, LP must provide for collection of ecosystem information, assessment and</li> </ul>	<ul style="list-style-type: none"> <li>• GI, J, R, G&amp;O, D, DoC, HR, I, P, E, R&amp;I, CP, LP, LM, F, C&amp;E, DR.</li> </ul>

<sup>67</sup> Note – the essential elements will be represented in the form of various articles or clauses within individual laws

<sup>68</sup> GI – General Intent; J – Jurisdiction; R – Responsibility; G&O – Goals and Objectives; D – Definitions; DoC – Duty of Care; HR – Hierarchy of Responsibility; I – Institutional; P – Policy; E – Education; R&I – Research and Investigation; CP – Community Participation; LP – Land Planning; LM – Land Management; F – Finance; C&E – Compliance and Enforcement; DR – Dispute Resolution

	<ul style="list-style-type: none"> <li>monitoring the condition of natural resources.</li> <li>E, CP, C&amp;E, LP must enable all parties to have equal access to information and can participate in decision-making, ensure availability of adequate dispute resolution procedures.</li> <li>LP, LM must create transboundary responsibilities between respective administrative units.</li> <li>C&amp;E, DR to ensure requirements and standards for a holistic approach are maintained.</li> </ul>	
that combines technologies, policies and activities aimed at integrating socio-economic principles with environmental concerns to satisfy the five pillars of sustainable land management	<ul style="list-style-type: none"> <li>Developing an integrated approach to natural resources management and the procedures that ensure all parties can apply the holistic approach.</li> <li>HR, I, P must contain procedures for an integrated approach to natural resources management, and ensure all parties have the necessary powers and responsibilities to implement a holistic approach.</li> <li>Require well-developed CP procedures to ensure the public is involved with decision-making activities.</li> </ul>	<ul style="list-style-type: none"> <li>GI, J, R, G&amp;O, D, DoC, HR, I, P, E, R&amp;I, CP, LP, LM, F, C&amp;E, DR.</li> </ul>
<ul style="list-style-type: none"> <li>To maintain or enhance production</li> </ul>	<ul style="list-style-type: none"> <li>HR, I, P, E, CP, LP, LM to establish information systems on alternative agricultural production systems.</li> <li>R&amp;I, LP, LM, to establish ecologically-based approaches to agricultural production, agro-ecological systems.</li> <li>P, E, CP, LM, F to establish conservation agriculture techniques.</li> </ul>	<ul style="list-style-type: none"> <li>HR, I, P, E, R&amp;I, CP, LP, LM, F.</li> </ul>
<ul style="list-style-type: none"> <li>To reduce the level of production risk</li> </ul>	<ul style="list-style-type: none"> <li>HR, I, P, E, CP, LP, LM to establish information systems on alternative agricultural production systems.</li> <li>R&amp;I, LP, LM, to establish ecologically-based approaches to agricultural production, agro-ecological systems.</li> <li>P, E, CP, LM, F to establish conservation agriculture techniques.</li> </ul>	<ul style="list-style-type: none"> <li>HR, I, P, E, R&amp;I, CP, LP, LM, F.</li> </ul>
<ul style="list-style-type: none"> <li>To protect the potential of natural resources biological diversity and ecological integrity and prevent degradation of soil and water quality</li> </ul>	<ul style="list-style-type: none"> <li>All elements need to be present to ensure effective management and implementation of an integrated natural resource management approach.</li> <li>HR, I LP, LM should contain the strategy for integrated management of land, water and all living resources.</li> <li>E, CP, LP, LM should promote conservation and sustainable use techniques, based on the application of appropriate scientific methodologies.</li> <li>The well-being of human society, perhaps its survival, may depend on a conscious effort to slow down the rate of development and modification of biological diversity an ecological approach is required toward law and policy making in general, and land use decision-making in particular.</li> <li>Requires the development of legal mechanisms, which enable an ecosystem-based approach to be applied in all aspects of environmental protection and management.</li> </ul>	<ul style="list-style-type: none"> <li>GI, J, R, G&amp;O, D, DoC, HR, I, P, E, R&amp;I, CP, LP, LM, F, C&amp;E, DR.</li> </ul>
<ul style="list-style-type: none"> <li>To be economically viable</li> </ul>	<ul style="list-style-type: none"> <li>GI, G&amp;O, R, P, F to establish strategies on farming systems; agricultural marketing systems; information systems on agricultural commodities, pricing, and price support schemes.</li> </ul>	<ul style="list-style-type: none"> <li>GI, J, R, G&amp;O, D, DoC, HR, I, P, E, R&amp;I, CP, LP, LM, F.</li> </ul>

	<ul style="list-style-type: none"> <li>• HR, I, LP, LM to monitor and evaluate economics of farming systems; and determine economic costs of LD and benefits of conservation-based farming systems.</li> </ul>	
<ul style="list-style-type: none"> <li>• To achieve social acceptability</li> </ul>	<ul style="list-style-type: none"> <li>• GI, J, R, G&amp;O, D, DoC to recognise rights of humans to access and use of natural resources.</li> <li>• HR, P to recognize that humans have responsibility to maintain ecosystem functions and conservation.</li> <li>• HR, I, P to establish organization system to protect ecosystems.</li> <li>• R, G&amp;O, DoC, HR to provide for needs of disadvantaged people, including indigenous people, poverty stricken people, traditional users of the land, women.</li> <li>• R, HR, E, CP, LP, LM for procedures to protect security for owners and occupiers of land; ensure rights and duties of occupiers, consent to reside on land, rights and duties of owners, transfer of land, right to choose farming systems, right to participate in land evaluation and planning activities.</li> <li>• LP, LM, F for financial measures to facilitate long-term security of tenure for occupiers.</li> <li>• C&amp;E, DR to protect rights and to resolve disputes.</li> </ul>	<ul style="list-style-type: none"> <li>• GI, J, R, G&amp;O, D, DoC, HR, I, P, E, R&amp;I, CP, LP, LM, F, C&amp;E, DR.</li> </ul>

## B. DETERMINING 'TRANSBOUNDARY' OR 'COMMON BOUNDARY' ISSUES

14. The objective of Transboundary Natural Resource Management (TBRM) in the regional governance program is to address the management of resources that are shared across a common border.
15. The TBRM concept is utilized to develop a framework perspective on the transboundary or 'common boundary' issues affecting the two countries, where TBRM is defined as:
- (i) "Any process of cooperation across boundaries that facilitates or improves the management of natural resources to the benefit of all parties in the area concerned" (Griffin et al. 1999).
16. To apply the concept of TBRM to the Pamir-Alai, each Legal Task Force will need to distinguish the different national initiatives, goals, land use and other factors including traditional or informal resource sharing arrangements at a community-level as well as under various multi-lateral agreements and authorities.
17. With regard to legal, policy and institutional issues, the main objective is for the Legal Task Forces to effectively examine the "within state" legal, policy and institutional situation for SLM (Module 4), but also in a regional context. This must be done to:
- (i) Improve conservation of shared resources that are being depleted or degraded at unsustainable rates;
- (ii) Ensure that communities and other stakeholders benefit from sustainable use of resources (in particular, to counter inequitable resource distribution associated with land and resource appropriation);
- (iii) Optimize the regional distribution of benefits from natural resource use.

18. Table 6 outlines a framework of various types of transboundary natural resource management activities which can be used as a guide to identify and analyze the common boundary issues for Kyrgyzstan and Tajikistan in the Pamir-Alai region.

**Table 6 – Framework of various types of TBNRM actions that may occur within in the common mountain environment of Kyrgyzstan or Tajikistan** <sup>69</sup>

Type of Activity	Proponents	Main Objective	Main Land Use types	Main Beneficiaries
Joint conservation activity	International organisations, national departments	Long term conservation	Protected areas, game reserves, hunting areas	Protected area interests, local communities
Transboundary natural resource management area	Communities, government, NGO's	Community based SLM across international boundary	Variable, often community lands	Local government, local communities
Development corridors	Government, private sector	Stimulate economic development in areas; achieve regional economic integration in cross-border investments	Focus on resource that support investment opportunities, tourism, mining, agriculture	Private sector, local communities
Regional Authority, or regional protocol	Bi-lateral governments, multi-lateral	Establish basis for management and cooperation	Variable, water, power generation, wildlife, agriculture, trade	National government, local communities
International convention or Agreement	International communities	Establish basis for cooperation in management of resources and the environment internationally	Wildlife, endangered species, biodiversity, water	National government, local communities

### **C. ESTABLISH SPECIFIC ELEMENTS FOR MANAGEMENT OF “COMMON BOUNDARY” ISSUES UNDER JOINT JURISDICTIONAL ARRANGEMENTS**

19. The Legal Task Forces should establish “common SLM rules” for the Project mountain environment. This could be in the form of an agreed set of elements to cover the natural, legal, political, economic, social and cultural situation for the mountain environment. <sup>70</sup>

20. A large number of international and regional agreements presently in force address the conservation of ecosystems, the sustainable use of natural resources, and the

<sup>69</sup> From various sources e.g. Mohamed-Katere, J, 2001, *Review of the Legal and Policy Framework for Transboundary Natural Resource Management in Southern Africa*. Paper No 3. IUCN-ROSA Series on Transboundary Natural Resources Management

<sup>70</sup> UNE will be providing a separate report on the principles for the creation of transboundary laws, and for the creation of an effective regional governance regime for natural resource management in June 2009 and will be made available to the national Legal Task Forces as soon as possible

processes and activities which affect both, with the general and overarching aim of achieving sustainable development. Various aspects of the multilateral environment agreements (MEAs) and strategies should be used as a guide to the design a specific instrument for the common Pamir-Alai mountain environment.<sup>71</sup>

21. A common agreement to manage SLM for the Kyrgyzstan and Tajikistan mountain environment should be based on measures to support the implementation of existing MEAs, and introduce rules to complement the relevant MEAs, but specifically attuned to the situation and needs of the Pamir-Alai.<sup>72</sup>
  22. A transboundary agreement should focus on aspects that are important for both Kyrgyzstan and Tajikistan for SLM of the mountain area. The principle of subsidiarity should be recognized, with a focus on cooperation, to achieve common goals.
  23. Appendix 4 provides a comprehensive list of potential components for a joint Kyrgyzstan and Tajikistan mountain environment management agreement.
  24. The issues listed in Appendix 4 can be used as a guide to examine the capacity of existing "common boundary" arrangements (within various instruments) or be used as a basis to prepare any new form of agreement. Each factor should be evaluated carefully by the Legal Task Forces together with other relevant materials before deciding on a final set of elements to use in an analysis for common boundary issues.<sup>73</sup>
  25. With regard to the future, two fundamental options exist for an agreement format:
    - (i) A comprehensive instrument that covers all rights and obligations in the common mountain environment;
    - (ii) A framework agreement setting out general principles and ground rules, to be elaborated in 'additional' instruments (e.g. protocols) addressing specific subject areas.<sup>74</sup>
  26. In either case, the following two key aspects could form the central focus of a regional transboundary mountain environment agreement between Kyrgyzstan and Tajikistan:<sup>75</sup>
- 27. Transboundary environmental effects:**
- (i) Take appropriate measures to prevent transboundary environmental harm based on principles in international law;

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<sup>71</sup> Specifically, the Convention to Combat Desertification; Framework Convention for Climate Change, Convention for Biological Diversity

<sup>72</sup> As a guide Chapter 13 "Managing Fragile Ecosystems -Sustainable Mountain Development" in Agenda 21, adopted at the Rio Summit; these recommendations are useful guidelines in drafting agreements for specific mountain regions

<sup>73</sup> UNE will be providing a separate report on the principles for the creation of transboundary laws, and for the creation of an effective regional governance regime for natural resource management in June 2009 and will be made available to the national Legal Task Forces as soon as possible

<sup>74</sup> E.g., see the *Convention for the Protection of the Alps*, which takes these aspects into account; its is a good example of a specific mountain ecosystem agreement. It can be a source of inspiration for agreements elsewhere. The specificity of the Kyrgyzstan and Tajikistan mountain environment makes it unrealistic to directly take the Alpine Convention as a model agreement for this area. This Convention is a framework convention and Art. 2 provides for Protocols with formulated targets. (Already concluded: Nature Protection and Landscapes: Mountain Agriculture; Town and Country Planning and Sustainable Development; Mountain Forests; Tourism; Energy; Soil Conservation; Transport; and Dispute Settlement. Yet to be concluded: Populations and Culture; as well as Management of Water Resources).

<sup>75</sup> Adapted from various transboundary instruments

- (ii) Include the provision for joint EIA to be undertaken in specific natural resource management circumstances;
- (iii) Provision for prior notice, along with relevant information and consult at an early stage;
- (iv) Include potentially affected persons in either Kyrgyzstan and Tajikistan in administrative and decision-making processes for SLM;
- (v) Where harm may be significant or pose a risk of irreversible harm, there should be provision for precautionary measures to be taken even if scientific and technical evidence is not conclusive;
- (vi) Establish a framework for regulating activities;
- (vii) Kyrgyzstan and Tajikistan will cooperate with each other or with international organizations to manage transboundary harm;
- (viii) Involve the public of Kyrgyzstan and Tajikistan, and ensure all those concerned are advised of decisions and period for review, full exercise of any rights or judicial or administrative review;
- (ix) Include obligations to notify and consult;
- (x) Consultation and negotiations should focus on equitable balance of interests of affected parties; provision to grant affected persons access to all relevant proceedings before plans for activity are implemented.

#### **28. Transboundary natural resources:**

- (i) Parties must cooperate in the conservation, management and restoration of natural resources which occur in the jurisdiction of Kyrgyzstan and Tajikistan;
- (ii) When sharing the same natural resource, make every effort to manage that system as a single ecological unit;
- (iii) Cooperate on the basis of equity and reciprocity through agreements that develop harmonized policies and strategies covering the legal, institutional and policy systems, and the ecosystems;
- (iv) In sharing the same species or population, make every effort to treat the species or population as a single biological unit;
- (v) Cooperate to maintain the species or population concerned in a favourable conservation status;
- (vi) Develop joint management plans to ensure the sustainable use of that resource and equitable sharing of benefits deriving from its use.

#### **D. USEFUL REFERENCES AND BACKGROUND INFORMATION SOURCES:**

1. Burhenne, W, 2002, *Prospective International Agreements for Mountain Regions*. Bishkek Global Mountain Summit. International and Regional Agreements and Cooperation and Sustainable Mountain Development. Thematic Paper A1.

2. Griffin, J, D. Cumming, S, Metcalf, M, t'Sas-Rolfes, J, Singh, E, Chonguica, M, Rowen, J, Oglethorpe, 1999, *Study of the Transboundary Natural Resource Management Areas in Southern Africa*, Biodiversity Support Programme, Washington D.C. USA.
3. Hannam, I.D. 2003. *A method to identify and evaluate the legal and institutional framework 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.
4. Hannam, I.D. and B.W Boer, 2002, *Legal and Institutional Frameworks for Sustainable Soil*. Environmental Law and Policy Paper No 45, IUCN, Gland, Switzerland and Cambridge, UK. 88p.
5. See IUCN Commission on Environmental Law, 2004, *Draft International Covenant on Environment and Development*, Third Edition: Updated Text. Prepared in cooperation with the International Council of Environmental Law. IUCN Gland and Cambridge.
6. Mohamed-Katere, J, 2001, *Review of the Legal and Policy Framework for Transboundary Natural Resource Management in Southern Africa*. Paper No 3. IUCN-ROSA Series on Transboundary Natural Resources Management.

## MODULE 5: ANALYSIS AND DISCUSSING OUTCOMES

### Module 5 covers:

- A. Applying the elements identified in Module 4 to the individual laws identified in Module 3;
- B. Summarising the gaps, strengths and weaknesses of existing legal, institutional and policy system for SLM;
- C. Reviewing the analysis in context of Component 1.2 PALM Project objectives;
- D. Useful references and background information sources.

### A. APPLYING THE ELEMENTS IDENTIFIED IN MODULE 4 TO LAWS AND REGULATIONS IDENTIFIED IN MODULE 4

1. The objective under Module 5 is to determine the capacity of laws to implement SLM.
2. The “capacity” of each individual law, area of law, and system of law, to implement SLM, is measured by the number and type of essential legal and institutional elements present within the law, in a format that enables implementation of SLM, and with the legal, administrative and technical capability to take some form of positive land management action. In general, the higher the number of essential elements present within an individual law in a format to implement SLM, the higher the capacity of that law to achieve a SLM goal.<sup>76</sup>
3. Module 4 indicated that most SLM issues are multi-factorial (i.e. many include a sociological, a legal and a technical component), and that many individual laws and areas of law will be needed to manage the issues. It is therefore necessary to analyse a broad range of laws to understand the structure of the current legislative system and the interaction between the individual laws within the legislative system.

### Establishing a profile for each individual law

4. The first task under Module 5 is to interpret each individual article in each law against the seventeen essential elements for SLM to determine the relationship between the articles and the essential elements.
5. A comparative table is prepared for each individual law showing how the respective articles relate to the seventeen elements for SLM. This exercise is a quick way of determining the “balance” within a particular law - the relative concentration or absence of procedures – see Example 2:
6. Using Table 4 as the standard, the next task is to undertake a detailed appraisal of each article that has been identified with each element for each individual law. A summary comment is compiled for each essential element and its relevant articles.
7. This procedure will establish a profile for each individual law.

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<sup>76</sup> 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.

**Example 2 - Law of China on Water and Soil Conservation; identifying the specific essential elements for each article** <sup>77</sup>

Title of Law or Regu																								
Law of the PRC on Water and Soil Conservation (PD: 29/06/1991; ED: 29/06/1991)																								
Article	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Instrument/elements																								
General intent	Y																							
Jurisdiction					Y																			
Responsibility			Y																					
Goals and objectives	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y													
Definitions		Y																						
Duty of care					Y																			
Hierarchy of responsibility			Y			Y																		
Institutional																								
Policy				Y																				
Education									Y		Y													
Research and investigation											Y													
Community participation																							Y	
River basin planning							Y														Y	Y		Y
River basin management								Y				Y	Y	Y	Y	Y	Y	Y	Y	Y				
Financial mechanisms																							Y	
Enforcement																								
Dispute resolution																								

**International level**

8. At the international level, studies in the Asian region indicate that a number of international laws and strategies have a high number of essential elements relevant to SLM, including:
- (i) The 1995 Convention to Combat Desertification;
  - (ii) The 1992 Convention for Biological Diversity;
  - (iii) The 1992 Framework Convention for Climate Change;
  - (iv) The 1972 Convention Concerning the Protection of World Cultural and Natural Heritage;
  - (v) The 1972 Stockholm Declaration on the Human Environment;
  - (vi) The 1992 Rio Declaration on Environment and Development.

<sup>77</sup> Example from legal analysis in Yellow River Law Study, China

9. A comparison of essential elements in the international environmental law will provide information on which ones focus on SLM. Some international laws have elements that establish a broad environmental interest, for example, natural-heritage interests, and the protection of biological diversity and ecology. Other international laws establish an indirect responsibility for land management, e.g. climate and atmospheric quality. Knowledge from previous studies in the region on the capacity of international law in establishing an interest for SLM issues is significant.
10. No individual international environmental law caters specifically for SLM issues: this role is diversely spread across several instruments, which play a significant support role in the overall framework for SLM in the Pamir-Alai mountain environment. As an Example see [Appendix 5](#) for a summary of the examination of various international laws against essential elements for sustainable land management.

### Regional aspects

11. The same approach outlined to examine the international law should be applied by the Legal Task Forces to regional environmental law relevant to the Pamir-Alai environment.
12. Each regional law is examined against the seventeen “essential elements” to prepare the [profile](#). The data in each profile will present a general picture of the existing and potential contribution that each law will make (individually, and as a group), to SLM. This information provides an understanding of the capabilities of the regional laws and interaction between them and identifies where they can support individual laws for SLM.
13. The following [Example 3](#) is a summary table for a group of regional environmental laws showing the presence of key essential elements.<sup>78</sup>

### Example 3 - Regional environmental law of the Asian Region relevant to water and land management - presence/absence of essential elements in various instruments

Instrument / Element	ASEAN	Mekong River Basin Agreement	Langkawi Declaration	East Asian Seas Action Plan	Total
General intent	Y	Y	Y	Y	4
Jurisdiction	N	Y	Y	Y	3
Responsibility	Y	Y	N	N	2
Objectives	N	Y	N	Y	3
Definitions	N	Y	N	N	1
Duty of Care	N	N	N	N	0
Hierarchy of responsibility	N	N	N	Y	1
Institutional	Y	Y	N	Y	3
Policy	N	N	N	N	0
Education	Y	N	N	N	1
Research	Y	N	N	N	1
Community participation	N	N	N	N	0
Land planning	Y	Y	N	Y	3
Land management	Y	N	N	Y	2

<sup>78</sup> From Hannam, I.D., 2002a, *Legal and Institutional Frameworks for Water and Land management with Particular Reference to Marginal Areas in Selected Countries in South and South East Asia and the People's Republic of China*. International Water Management Institute. Colombo. Sri Lanka.

<b>Finance</b>	N	Y	N	Y	<b>2</b>
<b>Enforcement</b>	N	N	N	N	<b>0</b>
<b>Dispute resolution</b>	N	N	N	N	<b>0</b>
<b>Total (max=17)</b>	<b>7</b>	<b>8</b>	<b>2</b>	<b>8</b>	

14. The next step for each level is to prepare a detailed commentary to show how the articles and essential elements of each individual law contribute to SLM.
15. The following [Example 4](#) of the Water and Soil Conservation Law of China is one method of summarizing the degree to which each article (or group of articles) can satisfy the objectives of each essential element for SLM.
16. Information in Tables 1, 2, 3, 4 and 5 should be drawn on in preparing the comments.

#### **Example 4 – Examination of 1991 Water and Soil Conservation Law of China against essential elements**

<b>Element</b>	<b>Relevant Articles</b>	<b>Comment on things that need to be done to satisfy an ecological objective</b>
<b>General intent</b>	Art 1. States the purpose of the Act is “Prevention and control of soil erosion, protection and rational utilisation of water and soil resources, mitigation of disasters of flood, drought and sandstorm, improve ecological environment, develop production”.	The Law has a stated interest in a range of “traditional” soil conservation issues, but also includes a reference to improve the ecological environment which gives a mandate to view soil conservation more widely than soil erosion prevention and control responsibilities. Could include references to sustainable land management, land degradation, soil degradation, desertification.
<b>Jurisdiction</b>	Art 5. All levels, State Council - local level.	Water and soil conservation issues in whole State.
<b>Responsibility</b>	Art 3. All units and individuals have an obligation to protect water and soil resources, prevent and control soil erosion, and the right to report any individual or unit that damages water and soil resources and causes erosion.	Different levels of responsibility are reasonably clearly laid out, but the types of responsibilities are mainly directed towards mechanical soil erosion control and prevention, without any specification of standards to be achieved.  Need to outline responsibility to whole environment and biodiversity management.
<b>Goals, objectives</b>	Arts 1-11 are considered as general “goals and objectives”.	Extensive list covers, general responsibility, general policy implementation, general duty, investigate and assess water and soil resources, adopt measures to protect water and soil resources, educate and publicise, obligation to research, communicate, training.  Need to include an ecological premise.
<b>Definitions</b>	Art 2. Defines “water and soil conservation” as the “preventative and rehabilitation measures taken against soil erosion which is caused by natural factors or human activities”.	Only one definition in the Law. Others should be included, viz, soil degradation, land degradation, ecology, environment, biodiversity, sustainable land management, natural regions, etc.
<b>Duty of care</b>	Art 5. All levels (State – local), To place water and soil conservation as an important duty, and adopt measures to ensure the prevention and control of soil erosion.  Art 25. Any individual who contracts for the use of land owned by the collective shall include the responsibility of rehabilitating soil erosion in the contract.	Needs more details on “levels” of care, and, in the body of the Law, be clearly linked to specific Articles and responsibilities.  Duty to whole environment and biodiversity conservation.
<b>Hierarchy of</b>	Art 3. All units and individuals have an obligation to	All levels represented, but the Law needs to be

<b>responsibility</b>	<p>protect water and soil resources, prevent and control soil erosion, and the right to report any individual or unit that damages water and soil resources and causes erosion.</p> <p>Art 6. State Council and Ministry have responsibility for water and soil conservation throughout the PRC; Local government has responsibility for the work within the respective jurisdictions.</p> <p>Art 27. Any enterprise or institution in the course of construction or production adopts water and soil conservation measures; is responsible for the rehabilitation of the soil eroded.</p> <p>Art 29. Establish a monitoring network for water and soil conservation; conduct monitoring and prediction nation wide and publicly announce results.</p> <p>Art 30. People in charge of supervising water and soil conservation, have the right to inspect situations of soil erosion prevention and control in their area of jurisdiction.</p>	<p>more detailed and specific provisions for the levels of responsibility, including standards for achievement. Needs specific standards and hierarchies for land planning, land management, policy development, cooperation, research, education, training, litigation, community advisory groups.</p> <p>Needs to be more specific as regards physiographic differences, expected standards of land management.</p> <p>Need to specify standards to be reached and monitored.</p>
<b>Institutional</b>	<p>No specific Articles that define specific institutional characteristics, requirement. There are many Articles which refer to general responsibilities for the MoWR, departments, units at particular levels etc.</p>	<p>Many provisions state level of institutional responsibility and involvement but needs to be clear relationship to organisation structure to implement, manage and achieve water and soil conservation.</p> <p>Need outline of relationship to other administrations, cooperation, linkages.</p>
<b>Policy</b>	<p>No specific policy making provisions.</p> <p>Art 4. Is a general provision “to implement a policy of prevention, including overall planning, comprehensive prevention and control, adoption of measures suited to local conditions, emphasis on management and seeking beneficial results”.</p>	<p>Need comprehensive policy making, implementation and review provisions. Outline responsibility to adopt and adhere to national environmental and ecological policies, goals, plans, and key international policies, strategies and instruments.</p>
<b>Education</b>	<p>Art 9. To publicise and provide education in water and soil conservation, and provide scientific knowledge.</p> <p>Art 11. Awards to be given for outstanding achievements in prevention and control of soil erosion.</p> <p>Also implied through many other Articles.</p>	<p>Need more detailed provisions that outline specific areas of education, targets, and areas for knowledge improvement and capacity building, including whole of environment education, role of soil and water conservation in sustainable land management.</p>
<b>Research</b>	<p>Art 10. For research, and to raise the level of science and technology of water and soil conservation, communicate knowledge, provide training in water and soil conservation science and technology.</p>	<p>Outline specific areas for research investigation, targets, dissemination of results, cooperative arrangements with other research institutions for land degradation, soil degradation, desertification, ecological research.</p>
<b>Community participation</b>	<p>No specific provision for formal community participation.</p> <p>See Article 23 – encouraging agricultural collective organisations, and farmers in soil eroded regions to rehabilitate soil erosion.</p> <p>Many Articles imply, and could enable a community participation role.</p>	<p>Outline provisions for involving community in water and soil conservation planning, management, project design. Community advisory groups, catchment committees etc.</p>
<b>Land planning</b>	<p>Art 7. To investigate and assess water and soil resources, and prepare water and soil conservation plans in conjunction with other departments.</p> <p>Art 21. General provision to organise departments to undertake planning for rehabilitation of soil erosion.</p> <p>Art 22. In a water-eroded region: Taking a small river basin comprising the natural ravines and flanking hillslopes as a unit, set up planning and</p>	<p>Need comprehensive structure for hierarchy and strategy of planning and implementation. Different levels of plans, State, regional, local, basic provisions, implementation mechanism, review and monitoring. Outline relationship of water and soil conservation plans to other PRC plans for the environment.</p> <p>Properly establish “protected” lands, with geomorphic and legal basis, identify hazards</p>

	<p>rehabilitation system for the prevention and control of soil erosion.</p> <p>In a wind –eroded region: To control sandstorm hazard, water resources, water diversion, planting of trees and grass, growing grass, sand break, forest network shall be adopted to build a windbreak system and sand fixation.</p> <p>Art 24. Organizing agricultural collective economic organizations and farmers, to manage in a planned way, cultivated land with a slope of above 5 degrees, but under the regulation-forbidden decrees; implementing water and soil conservation measures, regulating drainage systems, building terraced fields, and practicing a method of cultivation conducive to water and soil conservation.</p> <p>Art 26. The rehabilitation of soil erosion on barren hills, waste valleys, barren hillocks and desolated beaches.</p> <p>Where the rehabilitation soil erosion on barren hills, waste valleys, barren hillocks or desolated beaches are contracted out, contracts for the rehabilitation of soil erosion shall be concluded according to the principle of the benefits derived there from to be enjoyed by the contractors for the rehabilitation,</p> <p>The trees planted on account of the contracted rehabilitation and the fruits yielded there from shall belong to the contractors, and the land expanded as a result of the contracted rehabilitation shall be used by the contractors,</p> <p>The State shall protect the lawful rights and interests of the parties to a contract for rehabilitation,</p> <p>Within the term of the contracted rehabilitation, if a contractor dies – successors continue to undertake the contract.</p>	<p>lands.</p> <p>Need provisions to develop State standards, statues of the resource, link to monitoring.</p> <p>Need to substantially re-work the “regional” approach, to be more comprehensive, related to natural Divisions of PRC.</p>
<p><b>Land management</b></p>	<p>Art 8. Adopt measures to protect water and soil resources. Take responsibility for rehabilitative measures against soil erosion from production and construction activities.</p> <p>Art 12. To engage in afforestation, to enlarge forest covered areas, to increase vegetation.</p> <p>Art 13. Organise agricultural collective economic organizations and state owned agricultural, forest, forage and green manure crops; Close hillsides for afforestation and grass growing and rotation grazing; Control winds, drifting sand and preserve vegetation; Prohibit destruction of forest, burning vegetation, stripping vegetation, digging up tree stumps on steep hill sides, or on arid land regions.</p> <p>Art 14. Control over interference on hillsides greater than 25 deg, for cultivation of crops; The slopes are prescribed; they are determined and publicly announced by local government at county level; The pre-June 1991 rule.</p> <p>Art 15. Procedure for reclamation of “waste hillsides” on State land that is &gt; 5 deg in slope.</p> <p>Art 16. Control and prevention of soil erosion on forest land.</p> <p>Art 17. Water and soil conservation measures must be adopted to prevent soil erosion when preparing for afforestation.</p> <p>Art 18. Soil erosion control and prevention with highway, railway construction.</p> <p>Art 19. (i) Rules for construction of a railway, highway or a water</p>	<p>Existing provisions cover specific “land types”, forests, agricultural land, hillsides, unstable lands, construction activities, highways, railways.</p> <p>Needs to be a more highly developed structure of relationship between land use activities and land management measures, standards, guidelines etc, provisions for monitoring, maintenance.</p> <p>Properly outline process for obtaining land use approvals.</p>

	<p>project in mountainous, hill or sandstorm area; EIS must include a water and soil conservation program approved by Department of Water Administration; The water and soil conservation program shall be drawn up in accordance with the provisions of Article 18 of the W&amp;SCL.</p> <p>(ii) A township collective mining enterprise, or an individual, is to apply for mining, in accordance with Law on Mineral Resources, in hilly or mountainous area water; soil conservation program must be approved.</p> <p>(iii) Water and soil conservation facilities in a construction project must be designated, constructed and put into operation simultaneously with the principal part of the project; when a construction project is completed and checked for acceptance, the water and soil conservation facilities shall be checked for acceptance.</p> <p>Art 20. Take measures to strengthen the control over mining, earth fetching, sand digging and quarrying, to prevent soil erosion. Earth fetching, sand digging and quarrying shall be prohibited in areas in danger of land collapse, land sliding, or where mud-rock flow is liable to occur; the scope of such areas shall be determined by local people's government at or above county level.</p> <p>Art 28. Provision to accept appropriate standard of measures, and obligation to strengthen management and protection.</p>	
<b>Financial</b>	Art 21. Practice a policy of giving funding support, taxation benefit.	No specific details. Link land planning, land management requirements and projects to financial allocation process, standards required for funding, areas of funding, methods of appropriation.
<b>Enforcement</b>	<p>Art 32. Violation of Art 14 in relation to "forbidden" hillslopes &gt;25 deg, order cessation, adopt remedial measures.</p> <p>Art 33. In relation to reclamation of hillsides &gt;5 deg; orders, remedial works, impose fine.</p> <p>Art 34. In relation to land-sliding, collapse, mud flow areas; orders, remedial works, fine.</p> <p>Art 35. In relation to tree felling in forest areas without adoption of erosion control measures; orders, rectification, fine.</p> <p>Art 36. In relation to any constitution or enterprise that causes soil erosion in the course of construction or production and fails to rehabilitate, orders, rehabilitate, fines.</p> <p>Art 37. Anybody who hinders, violence, can be investigated for criminal responsibility.</p>	Good range of provisions. Include standards for breaches of the Law, process for making and issuing orders, remedial and rehabilitation process and standards, breach of orders.
<b>Disputes</b>	<p>Art 31. Disputes in regions over prevention and control of soil erosion to be resolved through consultation.</p> <p>Art 38. Procedures for handling disputes over administrative sanctions, reconsideration etc.</p> <p>Art 39. Compensation.</p> <p>Art 40. Dereliction of duty.</p>	Good range of provisions but could be expanded to set out actual procedure for handing different types of disputes.

## B. SUMMARISING GAPS, STRENGTHS AND WEAKNESSES OF EXISTING LEGAL, INSTITUTIONAL AND POLICY SYSTEM FOR SLM

17. The next step for the Legal Task Forces is to discuss the results of the analysis of the environmental laws. The profile for each individual law provides information on:

- (i) Which of the seventeen essential elements are represented in each law and the variations between the individual laws in the way the elements are represented;
- (ii) The relative occurrence of essential elements for all laws examined and the pattern of the most well represented elements and least represented elements;
- (iii) An indication of how well each particular law is “balanced” to achieve its General Intent and the overall capacity of each law to implement SLM.

### Procedure

18. The information from the legislative profiles is used to interpret the strengths and weakness of each law. This can be achieved by:

- (i) Interpreting the data for each individual law that shows the relationship between specific articles and essential elements;
- (ii) Making an assessment of the strength or weakness of each article in each individual law to implement SLM;<sup>79</sup>
- (iii) Summarizing the data on each individual law on the presence and absence of articles for each essential element and the total occurrences;
- (iv) Preparing a composite summary table for each area of law on the presence and absence essential elements for these laws.

19. Follow the procedures outlined in Examples 5, 6, 7, and 8.

20. The pattern and number of essential elements present and relative occurrence of these elements should be observed. From this procedure, a clear picture will evolve of the actual articles represented within each essential element and standard of drafting - clarity, and linkages to other articles and elements within the individual law, and between individual laws.

21. Assessing the pattern of elements is an important task for the Legal Task Forces as it indicates the potential areas to improve the individual laws.

22. Example 5 shows the relative occurrence of essential elements for integrated river basin management in four primary laws in China. This example shows the pattern of presence of the essential elements and the number of instances where each essential element occurs within this particular legal system. In Example 5, the presence of an article (or articles) for each element was “classified” as strong, medium or weak. This classification is a relative assessment of the ability of the article or group of articles to effectively contribute to the objective of integrated river basin management and is a useful way to establish the capacity of a law.

23. The “classification” is based on the following criteria:

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<sup>79</sup> In effect, an interpretation should be made of each individual article of each individual law according to its ability to implement the SLM objective (based on its respective function), and each individual law can be rearranged under the structure of the 17 essential elements.

- (i) The number of articles for a particular element;
- (ii) The ability of each article to be practically implemented;
- (iii) The relative importance or role of an article to achieve the intent of the law or regulation;
- (iv) The contribution that each article or group of articles will make to fulfil the objectives of a law.

**Example 5 - Yellow River Basin - summary of occurrence of essential elements and the relative strength of each element to implement integrated river basin management<sup>80</sup>**

Essential Element / Individual Laws	WPPCL	WL	W&SCL	FCL	Total
General intent	Y/M	Y/M	Y/M	Y/W	4
Jurisdiction	Y/S	Y/M	Y/W	Y/S	4
Responsibility	Y/S	Y/W	Y/M	Y/W	4
Goals and objectives	N	Y/S	Y/M	Y/W	3
Definitions	Y/S	Y/M	Y/W	Y/S	4
Duty of care	Y/W	Y/W	Y/W	Y/W	4
Hierarchy of responsibility	Y/S	Y/S	Y/M	Y/S	4
Institutional	N	Y/M	N	Y/S	3
Policy	N	Y/M	Y/M	N	3
Education	N	Y/W	Y/W	Y/W	3
Research and investigation	N	Y/M	Y/W	Y/W	3
Community participation	N	N	Y/W	Y/W	3
River basin planning	Y/S	Y/S	Y/W	Y/S	4
River basin management	Y/S	Y/S	Y/M	Y/S	4
Financial mechanisms	Y/M	Y/W	Y/W	Y/W	4
Enforcement	Y/S	Y/S	Y/M	Y/S	4
Dispute resolution	Y/M	Y/M	Y/M	N	3
<b>Total</b>	<b>11</b>	<b>16</b>	<b>16</b>	<b>15</b>	

**Comparative summary of individual laws**

24. Example 6 outlines a simple procedure to compare the relative merits of various national laws. In this Example, the four national laws form part of the area of law for land degradation control.

<sup>80</sup> From Hannam, I.D, Wang Xi, Zhou Yanfang and Hu Yuan, 2004, *Report on National and Provincial Legislation*, Strategic Planning Study for the Preparation of the Yellow River Law, ADB.

**Example 6 – Comparative summary table of essential elements for soil conservation objective from various laws in China <sup>81</sup>**

Law	Water Law	Forest Law	Agriculture Law	Grassland Law
Element				
<b>General intent</b>	Important to soil conservation objective because “soil conservation” and “water development” is co-dependent in PRC.	Includes specific provision for “soil conservation”, but also a wide range of conservation interests that directly contribute to soil conservation.	No specific intent for soil conservation. Principal intent is economic agriculture, importance to national economy.	Improve protection, management, use of grassland, protect, improve environment.
<b>Jurisdiction</b>	Water resources and soil resources are “owned” by the people. Applies to same jurisdiction as soil conservation.	Refers to a number of “activities”, which have to observe soil conservation principles and standards.	Agriculture is “the foundation in developing the national economy”.	Ecological jurisdiction – “all grassland in state includes Alpine grasslands”.
<b>Responsibility</b>	Emphasis is on development and utilisation of water but the responsibilities, as set out, are very general in their intent. Potential for conflict with soil conservation objectives unless co-ordination.	Like other “resources”, forest resources are “owned” by the people.	Enables almost any type of land to be used for agriculture. Emphasises “great importance” to agricultural work. Encourages use of “waste land” for agriculture.  No mention of responsibility to conservation.	Grassland is responsibility of “agriculture and animal husbandry departments”.  Emphasises “use rights”.
<b>Goals and objectives</b>	Goals cover development and utilisation of water, comprehensive planning, protection of non-water environment -soil, grass, flora, ecology, control water pollution and improve quality of water in accordance with Water Pollution Law. Potential for conflict with soil conservation goals. No mention of how this Law would meet this non-water objective.	None specified in the Law.	To develop socialist market economy, increase living standard.	None present. Should be added to create proper legal perspective for grassland law.
<b>Definitions</b>	Only one – “water resources”.	None. No definition of “forest” or “forest conservation”	“Agriculture” is production. No mention of production	Grassland not defined. Need proper ecological definitions to create the perspective of the

<sup>81</sup> From ADB TA *National Strategies for Soil and Water Conservation Strategy*, 2002

			with conservation.	law.
<b>Duty of care</b>	Could be viewed as the “responsibility”, above.	The duty of everybody to plant trees includes planting trees for soil conservation purposes.	See responsibility.	State department to set up detailed rules to implement the act.
<b>Hierarchy</b>	Sets out role of the respective levels of government. These “parallel” soil conservation.	Forestry department is a State organisation, with a similar geographical presence to soil conservation.	All levels – State, people’s governments. Plans prepared for comprehensive development of agriculture.	All levels.
<b>Institutional</b>	Sets out basic responsibilities of departments and governments, but no detailed functions of actual institutions. “Parallels” with soil conservation.		Institutions for marketing, commodity handling.	Minimal reference to departments etc.
<b>Policy</b>	No provisions for institutional policy making. Reference to role of international instruments and agreements. Potential for conflict with soil conservation objective.	Policy provisions are development oriented, which can be in conflict with soil conservation objective.	No specific provisions. State has responsibility for technology and information. Similar local responsibility but production oriented.	No specific provisions, but could be done under Art 22.
<b>Education</b>	No provisions.	None. Should be added.	Encourages science development, education in agriculture, “popularise” techniques.	No provisions. Should be added.
<b>Research</b>	Has a provision, but no mention of how it will be done.	Just “encourages” research in forest science. This can include forests and soil conservation.	Has provision.	Encourages scientific research to improve science and technology about grassland use.
<b>Community participation</b>	No specific community responsibilities, but potential for conflict with soil conservation.	Should be added.	Under education.	None. Should be added.
<b>Land planning</b>	Most comprehensive part of the Law. High potential for water development objectives to overlook conservation and management of other resources. No specific provisions to coordinate with other resource conservation requirements.	Art 4 has a category of “Protected forests” for soil conservation.	“Agricultural resources” to be used in rational way, draw up regional plans, protect agriculture (basic farmland, cultivation land), rehabilitate agricultural environment, rehabilitate “barren land”, “unreclaimed lands”, improve fertility.  Art 55 - Delimit basic farmlands, protecting cultivated land.	Local government investigate grassland resource, plan grassland animal husbandry in economic plan, improve protection, construction and rational use of grassland, develop stock carrying capacity.  Careful protection of grassland, reclamation forbidden. Where desertification and severe soil erosion appear in reclaimed grassland, government above County level should close down the area.  Rational use of grassland, avoid excess grazing; where

			<p>Specific measures to be adopted by State Council; people at county level to develop and rehabilitate “barren hills”, “unreclaimed lands”, “desolated beaches”; agricultural production organisations to keep maintenance of lands, improve soil fertility.</p> <p>Art 56 – State shall implement policy of prevention in water and soil conservation work, planning, adopts measures for local conditions. People’s governments at various levels take measures to strengthen and rehabilitate small river basins, control hazards, prevent and control soil erosion and desertification. Prohibits destroying forest, burning vegetation, reclaiming slopes. Art 57. Compulsory tree planting, protect forests, increase forest cover.</p>	<p>overgrazing occurs, users should adjust intensity, replant and recover, prevent degeneration, scientific management.</p>
<b>Land management</b>	<p>Provision for making long-term plans, but no reference to need to include “soil conservation” in the plans.</p>	<p>Chapters II (forest management), III (forest protection), and IV (planting and afforestation), contain provisions which enable implementation of soil conservation functions.</p>	<p>As above.</p>	<p>Provisions for natural disasters, control plant, soil removal, pests, prevent and control fire.</p>
<b>Financial</b>	<p>None.</p>	<p>Has a funding Article.</p>	<p>Specific provision on funding. Could include “soil conservation” work.</p>	<p>None.</p>
<b>Enforcement</b>	<p>Potential for “water” infringements to also include possible breaches of Soil Conservation Law.</p>	<p>Provision to take Criminal Law action.</p>	<p>Enables action for “loss or damage to agricultural land”</p>	<p>Some provisions. No link with Criminal Law.</p>
<b>Disputes</b>	<p>Similar to soil conservation law.</p>	<p>In relation to “right of use” of trees.</p>	<p>No. Should be added.</p>	<p>Provisions concerning ownership of use right of grassland. Obligation not to ruin grassland or equipment.</p>
<b>General comment</b>	<p>“Responsibility” of WL parallels</p>	<p>Forest law has a definite soil</p>	<p>Agriculture Law is production,</p>	<p>Very general law. Emphasis on grassland animal husbandry not</p>

	W&SCL. High potential for “water” development decisions to be made without consideration of soil, and other resources.	conservation role (i.e., overlap with Soil Conservation Law), but the full extent is unclear. The view of SC field staff is that WSCL should have responsibility for all “soil conservation”.	development-oriented. Can make decisions, actions that are to detriment to soil. No provisions to consult with soil conservation.	use within ecological capability. Has “soil conservation” within its objectives.
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## Interpretation

25. The procedure followed in Example 7 is a detailed interpretation of the analysis of a number of individual laws using the Methodological Research Guidelines approach. It summarises the improvements that could be made to increase the effectiveness of each of the laws for river basin management (in this case).

26. This same approach outlined in Example 7 can be applied to Kyrgyzstan and Tajikistan laws for SLM.

### Example 7 - Commentary on two primary laws from Yellow River Law Study China <sup>82</sup>

#### a. Water Law

The Water Law comprises 82 Articles.

Twenty four (24) Articles relate to River Basin Management<sup>83</sup>, 16 to River Basin Planning<sup>84</sup> and 13 each to Goals and Objectives, Hierarchy of Responsibility and Enforcement procedures.

It has relatively clear and identifiable statements of the intended purpose of the Law, including water resource utilization, water conservation and protecting, as well as sustainable use of water resource. It has provisions that enable issues of rational development, utilization saving and protection of water resources, control of water disasters in the entire State.<sup>85</sup> However, only the ownership has been specifically and clearly laid out. The responsibilities implied in other Articles are mainly directed towards water utilization and the protection of water and water project.<sup>86</sup>

The objectives cover, general intent, general policy, general responsibility and duty, research into advanced science and technology, education and institution.

Its Duty of Care is limited but it has a strong Hierarchy of Responsibility with all levels represented from the State to local levels but is inconsistent in its allocation of responsibilities for governments, administrative departments, units and individuals, particularly the relevant administrative departments.<sup>87</sup>

Institutionally, it gives particular organizations a direct responsibility and many provisions state the level of institutional responsibility and involvement.

The Water Law is weak in its educational capabilities and lacks any community participation procedures.

It has a good range of provisions for River Basin Planning and plan making and for different levels of plans.<sup>88</sup> There is a special section and more detailed provisions for plans, a big step forward from 1988 WL.

In the area of River Basin Management, the provisions cover a wide range of activities but lacks capability for integrated water management at the river basin level.<sup>89</sup> The Articles need to go further than “encouraging” actions

<sup>82</sup> From Hannam, I.D, Wang Xi, Zhou Yanfang and Hu Yuan, 2004, *Report on National and Provincial Legislation*, Strategic Planning Study for the Preparation of the Yellow River Law, Asian Development Bank.

<sup>83</sup> WL Articles, 24-25, 27-28, 31, 33-40, 42-43, 47-54.

<sup>84</sup> WL Articles 5, 14-19, 22-23, 26, 29-20, 44-46.

<sup>85</sup> WL Articles 1-13.

<sup>86</sup> WL Article 3.

<sup>87</sup> WL Articles 6-8, 12-13, 32, 41, 58-63.

<sup>88</sup> WL Articles 5, 14-19, 22-23, 26, 29-30, 44-46.

and there is a need for regulating water-saving activities. The relationship between water use activities and water management measures, standards, guidelines are not sufficient for effective RBM.

There is a good range of provisions for enforcement but lacks a process for making and issuing orders, remedial and rehabilitation process and responsibilities for breaches of law. Water disputes that arise between PRC districts are handled through consultation but when consultation is unsuccessful the government at the next higher level handles the dispute.<sup>90</sup> However, there is inadequate authorization for the settlement of disputes, the process for resolution, including any method of adjudication or a decision-making process.

#### **b. Water and Soil Conservation Law**

The W&SCL comprise 40 Articles, 11 of which relate to Objectives<sup>91</sup> and 11 to River Basin Management. It is relatively weak in most other areas.

The W&SCL has a stated interest in a range of “traditional” soil conservation issues, but also includes a reference to improve the ecological environment which gives a mandate to view soil conservation more widely than soil erosion prevention and control responsibilities.<sup>92</sup>

It does not contain any references to sustainable land management, land degradation, soil degradation, and desertification. Moreover, the W&SCL as structured does not contain the primary elements to enable the “general intent” as stated, to be achieved. Different levels of responsibility are reasonably clearly laid out, but the types of responsibilities are mainly directed towards mechanical soil erosion control and prevention, without any specification of standards to be achieved.

The Objectives are extensive and cover, general responsibility, general policy implementation, general duty, investigate and assess water and soil resources, adopt measures to protect water and soil resources, educate and publicise, obligation to research, communicate, training.

It lacks details on “levels” and there are few links between specific Articles and responsibilities. Hierarchically, all levels represented, but there is a lack of detail and provisions for the levels of responsibility, including standards for achievement. There are no specific standards and hierarchies for land planning, land management, policy development, cooperation, research, education, training, litigation, community advisory groups.

There are many provisions that relate to institutional arrangements. There is a State level of institutional responsibility and involvement but lacks any clear relationship to an organizational structure for implementation and management, to achieve water and soil conservation. There is no reference of a relationship to other administrations for cooperation.

For River Basin Planning, the W&SCL does not have a structure or hierarchy for a strategy of planning and plan implementation. It does not identify different levels of plans, State, regional, local, or their basic provisions, any implementation mechanism, or procedures for their review and monitoring.<sup>93</sup> For River Basin Management the W&SCL has provisions that cover management of specific “land types”, forests, agricultural land, hillsides, unstable lands, construction activities, highways, and railways but they are not in a highly developed and there is no relationship between land use activities and land management measures, standards, guidelines etc, provisions for monitoring, maintenance.<sup>94</sup>

The W&SCL has a good range of provisions to enforcement but lacks standards for breaches of the Law, any process for making and issuing orders, remedial and rehabilitation process and standards, breach of orders.<sup>95</sup> There is a reasonable range of provisions for dispute resolution but they do not clearly spell out the process for resolution, including the method of adjudication, persons involved, and a decision-making process. It would benefit from the establishment of a special tribunal or court for the hearing and adjudication of disputes.<sup>96</sup>

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<sup>89</sup> WL Articles 24-25, 27-28, 31, 33-40, 42-43, and 47-54.

<sup>90</sup> WL Articles 64-76.

<sup>91</sup> WL Articles 1-11.

<sup>92</sup> W&SCL Articles 1-11.

<sup>93</sup> W&SCL Articles 7, 20-21, 26.

<sup>94</sup> W&SCL Articles 12-20, 28.

<sup>95</sup> W&SCL Articles 32-37.

<sup>96</sup> W&SCL Articles 31, 38-40.

## C. ANALYZING RESEARCH OUTCOMES IN CONTEXT OF PROJECT OBJECTIVES

### Law

27. The approach taken to review the outcome of the analysis should consider the Project Objectives and future national requirements of Kyrgyzstan and Tajikistan, in particular the transboundary or “common boundary” requirements.
28. The following [Example 8](#) is from the Yellow River Law study in China and is a technique to summarise the weaknesses and gaps in various individual laws. It outlines the types of improvements that would be considered to the individual laws to achieve integrated natural resource management.<sup>97</sup>
29. A similar approach should be adopted by the Legal Task Forces to summarise the gaps and weaknesses in the individual laws for SLM in Kyrgyzstan and Tajikistan.
30. This [approach](#) in Example 8, if applied to SLM, is based on:
- (i) Categorising the essential elements into strong, weak or absent classes (as a measure of the breadth of the individual law to manage SLM) – see [Examples 5 and 6](#);
  - (ii) Re-writing various articles to capture the essential aspects of SLM, relevant to the intent and objective of the individual law – See [Example 7](#);
  - (iii) Adding new articles to expand the capability of each law to manage each component of the definition of SLM, in particular the introduction of articles that outline the ecological standards needed to achieve SLM – see [Example 7](#);
  - (iv) Reinforcing those aspects of the law that currently satisfy the objectives of SLM – see [Example 7](#);
  - (v) Highlighting where the law can be amended to improve its linkage with other laws within a particular legislative system that is important for SLM.

### Example 8 – Summary of various laws of China - gaps, strengths and weaknesses and suggested improvements and reforms for IRBM<sup>98</sup>

Individual Law	Strong, weak and absent aspects of each law	Suggested areas of improvement to each law
<b>Water Law</b>	<p>Sixteen (16) elements present.</p> <p>Strong in:</p> <ul style="list-style-type: none"> <li>• Goals and objectives.</li> <li>• Hierarchy of responsibility.</li> <li>• River basin planning.</li> <li>• River basin management.</li> <li>• Enforcement.</li> </ul> <p>Weak in:</p>	<ul style="list-style-type: none"> <li>• Clearly identifiable statements of the intended purpose of the Law include water resource utilization, water conservation and protecting, as well as sustainable use of water resource. Include the ecological role of water and ecosystem preservation.</li> <li>• Expand provisions that enable issues of rational development, utilization saving and protection of water resources, control of water disasters.</li> <li>• Include responsibility related to biodiversity management and water quality conservation.</li> <li>• Goals cover general intent, general policy, general responsibility and duty, research of advanced science and technology, education and institution.</li> <li>• Include definitions on “sustainable use of water”, “functional divisions of water”, “river basin”, “river basin management”.</li> <li>• Include more details on “levels” of care in the body of the WL and link to specific Articles and responsibilities.</li> </ul>

<sup>97</sup> From Yellow River Law Study, China

<sup>98</sup> From Hannam, I.D, Wang Xi, Zhou Yanfang and Hu Yuan, 2004, *Report on National and Provincial Legislation, Strategic Planning Study for the Preparation of the Yellow River Law*, ADB.

	<ul style="list-style-type: none"> <li>• General intent.</li> <li>• Jurisdiction.</li> <li>• Responsibility.</li> <li>• Definitions.</li> <li>• Duty of care.</li> <li>• Institutional.</li> <li>• Policy.</li> <li>• Education.</li> <li>• Research and Investigation.</li> <li>• Financial mechanisms.</li> <li>• Dispute resolution.</li> </ul> <p>Absence of:</p> <ul style="list-style-type: none"> <li>• Community participation.</li> </ul>	<ul style="list-style-type: none"> <li>• Outline a “duty” to ecosystem preservation, biodiversity conservation and water quality conservation.</li> <li>• Improve hierarchy of responsibility - clearer allocation of responsibilities for governments, administrative departments, units and individuals, especially for the relevant administrative departments. Need communication and coordination mechanism; add provisions to consider physiographic differences, standards to be reached, and monitoring standards.</li> <li>• Institutional – identify direct responsibilities for each organisation. Expand provisions for all levels of responsibility, not just State level of institutional responsibility and involvement. Need to outline clear relationship to organization structure and to other administrations, cooperation and links.</li> <li>• Include comprehensive policy making, implementation and review provisions.</li> <li>• Outline responsibility to adhere to national environmental and ecological policies, goals, plans, and strategies.</li> <li>• Outline specific areas of education, targets, and areas for knowledge improvement and capacity building.</li> <li>• Specify specific areas for research and investigation, targets, dissemination of results, cooperative arrangements with other research institutions for water use and protection and control of water disaster.</li> <li>• Community - include detailed provisions for public participation. Include provisions for community participation in river basin comprehensive and specialty planning, management, project design. Need provisions to establish community advisory groups, catchment committee’s.</li> <li>• RB planning - Good range of provisions on planning making and different levels of plans. Strengthen implementation mechanisms, processes for review and monitoring. Improve the “regional” approach, to be more comprehensive, and relate to the natural Divisions of PRC.</li> <li>• RB management – Include detailed provisions for integrated water management at the level of river basin, encourages and regulates water-saving activities. Improve the structure of the relationship between water use activities and water management measures, standards, guidelines.</li> <li>• Include provisions for financing projects or activities, such as budgetary procedures, specific appropriation funds and environmental funds.</li> <li>• Include process for making and issuing orders, remedial and rehabilitation process and responsibilities for breaches of law. Include “standards” for breaches of the WL.</li> <li>• Inadequate authorization for the settlement of disputes. Improve the procedures for dispute resolution, including method of adjudication, person’s involved, decision-making process.</li> </ul>
<b>Water &amp; Soil Conservation Law</b>	<p>Sixteen (16) elements present.</p> <p>None of the elements were considered to be strong for RBM.</p> <p>Weak in:</p> <ul style="list-style-type: none"> <li>• General intent, responsibility,</li> <li>• Goals and objectives, definitions,</li> <li>• Duty of care,</li> <li>• Hierarchy of responsibility,</li> <li>• Policy,</li> <li>• Education,</li> <li>• Research and investigation,</li> <li>• Community participation,</li> </ul>	<ul style="list-style-type: none"> <li>• W&amp;SCL has an interest in a range of “traditional” soil conservation issues, but also includes a reference to improve the ecological environment which gives a mandate to view soil conservation more widely than soil erosion prevention and control responsibilities. Include references to sustainable land management, land degradation, soil degradation, and desertification.</li> <li>• Expand the W&amp;SCL to include the primary elements that enable the “general intent” to be achieved.</li> <li>• Expand “responsibilities” and specify the standards to be achieved. Responsibility should be to the “whole environment” and biodiversity management.</li> <li>• Goals and objectives cover - general responsibility, general policy implementation, general duty, investigate and assess water and soil resources, adopt measures to protect water and soil resources, educate and publicise, obligation to research, communicate, training but need to include an ecological premise.</li> <li>• Only one definition in W&amp;SCL - others should be included, i.e., soil degradation; land degradation, ecology, environment, biodiversity, and sustainable land management, natural regions.</li> <li>• Needs more details on “levels” of care in the body of the W&amp;SCL, and link to specific Articles and responsibilities. Add “duty” to whole environment and biodiversity conservation.</li> <li>• Hierarchy of responsibility - all levels represented, but W&amp;SCL needs to be more detailed and specific provisions for the levels of responsibility, including standards for achievement. Needs specific standards and</li> </ul>

	<ul style="list-style-type: none"> <li>• RB planning,</li> <li>• RB management,</li> <li>• Financial mechanisms,</li> <li>• Enforcement,</li> <li>• Dispute resolution.</li> </ul> <p>Absence of:</p> <ul style="list-style-type: none"> <li>• Institutional.</li> </ul>	<p>hierarchies for land planning, land management, policy development, cooperation, research, education, training, litigation, community advisory groups.</p> <ul style="list-style-type: none"> <li>• Needs to be more specific as regards physiographic differences, expected standards of land management. Specify standards to be reached and monitored.</li> <li>• Institutional - many provisions state level of institutional responsibility and involvement but there needs to be clear relationship to organizational structure to implement, manage and achieve water and soil conservation. Outline relationship to other administrations, cooperation, and links.</li> <li>• Policy - need comprehensive policy making, implementation and review provisions. Outline responsibility to adopt and adhere to national environmental and ecological policies, goals, plans, and key international policies, strategies and instruments.</li> <li>• Education - outline specific areas of education, targets, and areas for knowledge improvement and capacity building, including whole of environment education, role of soil and water conservation in sustainable land management.</li> <li>• Outline specific areas for research investigation, targets, dissemination of results, cooperative arrangements with other research institutions for land degradation, soil degradation, desertification, and ecological research.</li> <li>• Include provisions for involving community in water and soil conservation planning, management, project design. Community advisory groups, catchments committee's etc.</li> <li>• RB planning - need comprehensive structure for hierarchy and strategy of planning and implementation. Different levels of plans State regional, local, basic provisions implementation mechanism, review and monitoring. Outline relationship of water and soil conservation plans to other RBM plans for the environment. Establish "protected" lands with geomorphic and legal basis, identify hazard lands. Need provisions to develop State standards, statues of the resource, link to monitoring.</li> <li>• Need to substantially re-work the "regional" approach, to be more comprehensive, related to natural Divisions of PRC.</li> <li>• RB management - existing provisions cover specific "land types", forests, agricultural land, hillsides, unstable lands, construction activities, highways, and railways. Need a more highly developed structure of relationship between land use activities and land management measures, standards, guidelines etc, provisions for monitoring, maintenance. Include proper process for obtaining land use approvals.</li> <li>• Financial – need links to land planning, land management requirements and projects to financial allocation process, standards required for funding, areas of funding, methods of appropriation.</li> <li>• Enforcement – expand provisions to include standards for breaches of W&amp;SCL, process for making and issuing orders, remedial and rehabilitation process and standards, breach of orders.</li> <li>• Disputes - reasonable range of provisions but expand provisions to more clearly spell out the process for resolution, including method of adjudication, person's involved, decision-making process. Consideration could also be given to the establishment of a special tribunal or court for the hearing and adjudication of disputes.</li> </ul>
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## Policy

31. The main task is to develop a framework for national SLM policy for Kyrgyzstan and Tajikistan using the issues identified in Module 3.

32. Table 7 provides a framework for summarising SLM related policy.<sup>99</sup> This is one approach and others may be considered by each Legal Task Force.

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<sup>99</sup> This framework is based on the "Agenda" procedure outlined in Hurni, H. and K. Meyer. 2002. *A World Soils Agenda: Discussing International Actions for the Sustainable Use of Soils*. Prepared with the support of an

33. Information from Table 6 would also be applicable to the preparation of Table 7.

**Table 7 – Framework approach to summarise and prioritise SLM policies for Kyrgyzstan and Tajikistan mountain environment**

Policy Areas for SLM	Specific SLM policy	Specify general issues of each policy area and specific policy	Requirements to fulfil each policy area
1. Policy covering natural resource, monitoring and evaluation	1. Policy for assessing the status and trends of natural resource management	<ul style="list-style-type: none"> <li>Land degradation is widespread and severe.</li> <li>Uncertainty about extent, severity, impacts.</li> <li>Need data to remove assumptions about trends, thresholds for land use.</li> <li>Effects of land degradation on agriculture, ecology, and humans.</li> <li>Adequacy of methodology.</li> </ul>	<ul style="list-style-type: none"> <li>Detailed information and knowledge of natural resource condition.</li> <li>Expand land data base knowledge.</li> <li>Need ecosystem knowledge.</li> <li>Need reliable methodology for SLM.</li> </ul>
	2. Policy outlining impact indicators and tools for monitoring and evaluation of SLM policy	<ul style="list-style-type: none"> <li>SLM techniques have multiple impacts on natural resource base, agriculture, economy, institutions, and society.</li> <li>Need to design a small number of 'multi-dimensional, multi-scale, multi-functional indicators to assess impacts on SLM.</li> <li>Develop monitoring systems to determine level of sustainability, and monitor mitigation efforts.</li> </ul>	<ul style="list-style-type: none"> <li>Need to develop SLM indicators and SLM monitoring systems.</li> <li>SLM indicators should allow for assessment of all dimensions of sustainability, particularly ecosystem aspects.</li> <li>Regular scrutiny of indicators.</li> </ul>
	3. Policies for developing principles, technologies, approaches and enabling framework for SLM	<ul style="list-style-type: none"> <li>Need for good documentation of technological information on SLM systems.</li> <li>Multiple benefits of SLM not properly understood.</li> <li>Implementation depends on approaches chosen to make information available.</li> </ul>	<ul style="list-style-type: none"> <li>Research, monitoring and evaluation should be directed towards developing and testing SLM technologies.</li> <li>Important to look at ecological, economic, social and institutional feasibility of SLM.</li> </ul>
2. Development of SLM policy	4. Policies that define a State multi-disciplinary network for SLM issues including transboundary issues	<ul style="list-style-type: none"> <li>SLM issues are generally multidisciplinary in nature.</li> <li>Sustainability involves research issues in law, policy, social, economic, physical sciences.</li> <li>Need adequate SLM policies, capable of being monitored.</li> <li>SLM policy should address land degradation problems, from basic principles to multi-functional issues of natural resources and integration into spatial planning of agriculture, urban, biodiversity issues.</li> </ul>	<ul style="list-style-type: none"> <li>Raising awareness of SLM governance systems.</li> <li>Develop integrated SLM policy.</li> <li>Institutional capability.</li> <li>Compatibility of policies.</li> <li>Advisory network or panel of SLM experts.</li> </ul>
	5. Policies for establishing knowledge panels on SLM	<ul style="list-style-type: none"> <li>SLM is a central issue in land management.</li> </ul>	<ul style="list-style-type: none"> <li>Discuss key SLM issues.</li> <li>Synthesise SLM</li> </ul>

international group of specialists of the IASUS Working Group of the International Union of Soil Sciences (IUSS).Centre for Development and Environment, Berne 63pp; it has been modified for adaptation to the objectives of the Methodological Research Guidelines.

		<ul style="list-style-type: none"> <li>Equal status for biodiversity, climate change, forests, water issues.</li> </ul>	<ul style="list-style-type: none"> <li>information.</li> <li>Provide information on impacts of land degradation.</li> <li>Provide guidance for SLM research.</li> <li>Assist policymaking process to achieve SLM.</li> </ul>
	6. Policies to providing guidance on development and implementation of SLM policies	<ul style="list-style-type: none"> <li>State SLM policies need to be developed into more integrated instruments and applied widely.</li> <li>Develop links to international policies.</li> </ul>	<ul style="list-style-type: none"> <li>Target groups for SLM policy.</li> <li>Develop ecological SLM standards.</li> </ul>
3. Support for implementation of SLM policy	7. Policies to promote initiatives for SLM	<ul style="list-style-type: none"> <li>Need more comprehensive and integrated land use systems to manage land degradation and achieve SLM.</li> <li>Focus on the ecosystem.</li> </ul>	<ul style="list-style-type: none"> <li>Develop SLM research products and initiatives.</li> <li>Manage the ecosystem.</li> </ul>
	8. Policies to ensure the inclusion of SLM-related issues in national and transboundary development programs	<ul style="list-style-type: none"> <li>Consider the effect of development programs SLM.</li> <li>Integrated land management includes sustainability parameters.</li> <li>Monitor and report on impact of development programs on SLM.</li> </ul>	<ul style="list-style-type: none"> <li>Evaluate the impacts of development programs on SLM, eg, effects on soil health, biodiversity, land degradation processes.</li> </ul>
	9. Policies to provide guidance for State action	<ul style="list-style-type: none"> <li>Impact of land use activities on SLM.</li> <li>Biodiversity issues not always given equal consideration in planning and decision-making.</li> </ul>	<ul style="list-style-type: none"> <li>Availability of sustainable land use standards to provide guidance at all levels, local, region, State.</li> <li>Provide guidance for planning, implementation, impact assessment processes.</li> </ul>

#### D. USEFUL REFERENCES AND BACKGROUND INFORMATION SOURCES:

1. Glowka, L. in collaboration with C. Shine, O. Rey Santos, M. Farooque, L. Grundling. 1998. *A guide to undertaking biodiversity, legal and institutional profiles*. Environmental Policy and Law Paper, No 35, Bonn, Germany: IUCN Environmental Law Centre.
2. Hannam, I.D. 2003. *A method to identify and evaluate the legal and institutional framework 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.
3. Hannam, I.D. and B.W Boer, 2002, *Legal and Institutional Frameworks for Sustainable Soil*. Environmental Law and Policy Paper No 45, IUCN, Gland, Switzerland and Cambridge, UK. 88p.
4. Hannam, I.D and B.W. Boer, 2004, *Drafting Legislation for Sustainable Soil: A Guide*, IUCN, Gland, Switzerland and Cambridge, UK.
5. Hannam, I.D, Wang Xi, Zhou Yanfang and Hu Yuan, 2004, *Report on National and Provincial Legislation*, Strategic Planning Study for the Preparation of the Yellow River Law, ADB.
6. Hurni, H. and K. Meyer. 2002. *A World Soils Agenda: Discussing International Actions for the Sustainable Use of Soils*. Prepared with the support of an international group of specialists of the IASUS Working Group of the International Union of Soil Sciences (IUSS). Centre for Development and Environment, Berne 63pp.
7. Mohamed-Katere, J, 2001, *Review of the Legal and Policy Framework for Transboundary Natural Resource Management in Southern Africa*. Paper No 3. IUCN-ROSA Series on Transboundary Natural Resources Management.
8. Niasse, M, A, Iza, G. Amidou et Olli Varis, *Water Governance in West Africa: Legal and Institutional Aspects*, IUCN, Gland, Switzerland and Cambridge, UK.

9. Njokanma, I.R, 2004, 'The Legal and Institutional Framework Governing the Management of Water Resources in Nigeria', in (Eds) Niasse, M, A, Iza, G. Amidou et Varis, *Water Governance in West Africa: Legal and Institutional Aspects*, IUCN, Gland, Switzerland and Cambridge, UK.
10. Nowlan, L, 2001, *Arctic Legal Regime for Environmental Protection*. IUCN, Gland, Switzerland and Cambridge, UK and ICEL, Bonn, Germany.

## APPENDIX – 1 METHODOLOGICAL RESEARCH GUIDELINES

### WORKSHOP AGENDA

<b>MODULE 1 – day 1 am</b>	<b><u>Background to Methodological Research Guidelines</u></b>		
<b><u>Morning</u></b>			
08.30-10.00	Session 1	1.5 hrs	Introduction
10.00-10.30	Break	0.5 hrs	
10.30-12.00	Session 2	1.5hrs	Identifying Steps; key aspects of FW
12.00-13.30	Break & Discussion	1.5 hrs	
<b>MODULE 2 – day 1 pm</b>	<b><u>Outline of Methodological Research Guidelines</u></b>		
<b><u>Afternoon</u></b>			
13.30-15.00	Session 3	1.5 hrs	Examples
15.00-15.30	Break	0.5 hrs	
15.30-17.00	Session 4	1.5 hrs	Reasons, objectives; definitions
<b>MODULE 3 – day 2</b>	<b><u>Implementing the Methodological Research Guidelines</u></b>		
<b><u>Morning</u></b>			
08.30-10.00	Session 1	1.5 hrs	Issues
10.00-10.30	Break	0.5 hrs	
10.30-12.00	Session 2	1.5hrs	Issues
12.00-13.30	Break & Discussion	1.5 hrs	
<b><u>Afternoon</u></b>			
13.30-15.00	Session 3	1.5 hrs	Operational environment
15.00-15.30	Break	0.5 hrs	
15.30-17.00	Session 4	1.5 hrs	Identifying national policy & strategies
<b>MODULE 3 – day 3</b>	<b><u>Implementing the Methodological Research Guidelines</u></b>		
<b><u>Morning</u></b>			
08.30-10.00	Session 1	1.5 hrs	Laws – international & regional
10.00-10.30	Break	0.5 hrs	
10.30-12.00	Session 2	1.5hrs	Laws – national / K
12.00-13.30	Break & Discussion	1.5 hrs	
<b><u>Afternoon</u></b>			
13.30-15.00	Session 3	1.5 hrs	Laws – national / T
15.00-15.30	Break	0.5 hrs	
15.30-17.00	Session 4	1.5 hrs	Elements
<b>MODULE 4 – day 4</b>	<b><u>Analysis of Legislative and Policy Materials</u></b>		
<b><u>Morning</u></b>			
08.30-10.00	Session 1	1.5 hrs	Elements
10.00-10.30	Break	0.5 hrs	
10.30-12.00	Session 2	1.5hrs	Determining capacity
12.00-13.30	Break & Discussion	1.5 hrs	

**Afternoon**

<b>13.30-15.00</b>	<b>Session 3</b>	<b>1.5 hrs</b>	<b>Transboundary issues</b>
<b>15.00-15.30</b>	<b>Break</b>	<b>0.5 hrs</b>	
<b>15.30-17.00</b>	<b>Session 4</b>	<b>1.5 hrs</b>	<b>Transbounday agreements</b>

**MODULE 5 – day 5**

**Analysis and Discussion of Outcomes**

**Morning**

<b>08.30-10.00</b>	<b>Session 1</b>	<b>1.5 hrs</b>	<b>Identify outcomes</b>
<b>10.00-10.30</b>	<b>Break</b>	<b>0.5 hrs</b>	
<b>10.30-12.00</b>	<b>Session 2</b>	<b>1.5hrs</b>	<b>Strengths &amp; weaknesses</b>
<b>12.00-13.30</b>	<b>Break &amp; Discussion</b>	<b>1.5 hrs</b>	

**Afternoon**

<b>13.30-15.00</b>	<b>Session 3</b>	<b>1.5 hrs</b>	<b>Interpretation of results</b>
<b>15.00-15.30</b>	<b>Break</b>	<b>0.5 hrs</b>	
<b>15.30-17.00</b>	<b>Session 4</b>	<b>1.5 hrs</b>	<b>Outcomes of interpretation / project</b>

## **APPENDIX 2 – Preliminary List of Individual Laws for Kyrgyzstan and Tajikistan**

### **ANNEX II: Environmental Legislative Framework: Kyrgyz Republic**

- Law on Nature Protection, April 17, 1991
- Law on Local Self-administration and Local State Administration, April 19, 1991, No. 437 - XII
- The Land Code of the Kyrgyz Republic, July 11, 1991
- President's Decree on Territorial and Republican Funds of Protection of Nature, July 21, 1992
- Resolution of the Government on Financial Responsibility for Damage Inflicted on Forest Resources, August 17, 1992, No. 403
- Resolution of the Government on the Approval of Tariff System for the Calculation of Fines Imposed for Damage Inflicted on State Game Resources and Illegal Use or Destruction of Vegetation, August 17, 1992, No. 402
- Law on the Mineral Wealth, December 15, 1992
- Resolution of the Government on the Statute on State Control in the Field of Nature Protection and Natural Resources Use, December 25, 1992, No. 630
- The Forest Code of the Kyrgyz Republic, July 1, 1993
- Resolution of the Government on Financial Responsibility for Damage Caused by Improper Land Use, July 19, 1993, No. 317
- Law on Water, January 14, 1994
- Resolution of the Government on Approval of Statute on State Environmental Review in the Kyrgyz Republic, April 12, 1994, No. 212
- Law on Protected Territories, May 28, 1994
- Resolution of the Government on the National Register of Potentially Toxic Chemicals (NRPTC), June 13, 1995, No. 279
- Resolution of the Government on the State Committee of the Kyrgyz Republic for Nature Protection, August 11, 1995, No. 349
- National Environmental Action Plan, 1995
- Resolution on Agricultural Land Monitoring in the Kyrgyz Republic, March 1, 1999, No. 115
- Law on Enacting the Land Code of the Kyrgyz Republic, June 2, 1999, No. 46
- Law of the Kyrgyz Republic on Peasant (individual) Farms, June 3, 1999
- Law on Atmosphere Protection, 12 June, 1999 (replaced the 1981 Law)
- Law on Environment Protection, 16 June, 1999 (supersedes the 1991 Law), No. 53
- Law on Ecological Expertise (Environmental Review), June 16, 1999.
- Law on Biosphere Territories, 1999.
- Forest Code of the Kyrgyz Republic, July 8, 1999.
- Law on Accession of the Kyrgyz Republic to the Convention to Combat Desertification in Countries Experiencing Serious Draught and/or Desertification, Particularly in Africa, July 21, 1999
- Law on Animal World, 1999
- Law on Tailings Ponds and Dumps, 2001
- Law on Wastes of Production and Consumption, 2001
- Law on Water Users Association, March 12, 2002, No. 35

### **ANNEX III: Environmental Legislative Framework: Republic of Tajikistan**

- Nature Conservation Act (1993)
- Resolution on the unauthorised collection of organic material (e.g. medicinal plants / wild species) (1990)
- Law on land charges (1992)
- Resolution on the Ministry of Environment (1992)
- Water Code (1993)
- Law on Conservation and Utilisation of Wildlife (1994)
- Resolution on State Control of Environmental Protection and Use of Resources (1994)
- Resolution on State Ecological Review (1994)
- Mineral Resources Act (1994)
- State Sanitary Control Act (1994)
- Forest Code (1994)
- Law on Soil (1994)
- Air Protection Act (1996)
- Specially Protected Natural Features Act (1996)
- Land Code (1996)
- Resolution on State Ecological Programme (1997)
- Presidential Decree on the Accession of the Tajikistan to the Convention to Combat Desertification in Countries Experiencing Serious Draught and/or Desertification, Particularly in Africa (1998)
- Tax Code (1998)
- Code about Administrative Offences (2000)
- Water Code (2001)
- Law on Land Valuation (2001)
- Law on Land Management (2001)

#### **Decisions of the Government:**

- “Programme on the Economic Transformations of Agriculture in the Republic of Tajikistan” (1995), No. 73
- “About Reorganization of the Agricultural Enterprises and Organization” (1995)
- “About Measures on the Preservation and Improvement of Land Fertility and the Natural Environment” (1995)
- ‘Programme of development of Gorno-Badakshan Autonomous Oblast (GBAO) for 1995 and for the period until 2005’ (1993)
- ‘About the state programme of ecological education and training of the population of the Republic of Tajikistan until 2000 and for the period until 2010’ (1996)
- ‘About measures on realisation of the state programme of ecological education and training of the GBAO population until 2000 and on prospect until 2010’ (1996)
- ‘About the statement of the state ecological programme of Republic of Tajikistan for the period 1998-2008’ (1997)
- “About the State Control of Use and Protection of Grounds in the Republic of Tajikistan (1997), No. 294
- “Programme for Improvement of Irrigation Lands 1998-2003 (1997).
- ‘About measures on the performance of the state ecological programme of the Republic of Tajikistan’ (1998)
- ‘About the approval of the complex plan of the basic measures on ecological migration for 1999’ (1999)
- ‘About the approval of the National plan of activity on the environment hygiene in the Republic of Tajikistan’ (2000)
- “Programme to Increase Productivity of Grain Cultures and Manufacturing of Grain in the Republic of Tajikistan for 2001-2005 (2000)
- “Medium-term Programme on Priority Directions and Strategy for Development of Agriculture in the Republic of Tajikistan until 2005 (2000)
- ‘About land allotment for the Tajik National Park’ (2001)
- “About the Statement of the National Action Programme (NAP) to Combat Desertification (2001), No. 598

## APPENDIX 3 – Selected International and Regional Laws to Review

### International instruments

- (i) 1992 Convention on Biological Diversity;<sup>100</sup>
- (ii) 1992 Framework Convention on Climate Change;<sup>101</sup>
- (iii) 1992 Convention on the Protection and Use of Transboundary Watercourses and International Lakes;<sup>102</sup>
- (iv) 1995 Convention to Combat Desertification in Countries Experiencing Serious Drought and/or Desertification, Particularly Africa.<sup>103</sup>

### Other strategies

- (i) 2000 IUCN Draft International Covenant on Environment and Development;<sup>104</sup>
- (ii) 2002 The Johannesburg Declaration on Sustainable Development;<sup>105</sup>
- (iii) 2002 The World Summit on Sustainable Development Plan of Implementation;<sup>106</sup>

### Regional instruments

- (i) 1983 Benelux Convention on Nature Conservation and Landscape Protection;<sup>107</sup>
- (ii) 1990 Convention for the Protection of the Natural Resources and Environment of the South Pacific Region;<sup>108</sup>
- (iii) 1991 Convention concerning the Protection of the European Alps;<sup>109</sup>
- (iv) 1992 Convention for the Conservation of the Biodiversity and the Protection of Wilderness Areas in Central America;<sup>110</sup>
- (v) 1993 Regional Convention for the Management and Conservation of the Natural Forest Ecosystems and the Development of Forest Plantations;<sup>111</sup>
- (vi) 1994 Protocol for the Implementation of the Alpine Convention in the field of Mountain Agriculture;<sup>112</sup>
- (vii) 1994 Protocol for the Implementation of the Alpine Convention in the field of Nature Protection and Landscape Conservation;<sup>113</sup>
- (viii) 1996 Protocol for the Implementation of the Alpine Convention in the field of Mountain Forests;<sup>114</sup>
- (ix) 1998 The Protocol for the Implementation of the Alpine Convention of 1991 in the Area of Soil Protection;<sup>115</sup>

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<sup>100</sup> Date of adoption 5. 6.1992 Place of adoption Rio de Janeiro, Brazil.

<sup>101</sup> Date of adoption: 1992-05-09 Place of adoption: New York ID Number: 3069, Entry into force: 1994-03-21 Depository: UN United Nations Available in: B7 p. 992:35.

<sup>102</sup> Date of adoption: 1992-03-17 Place of adoption: Helsinki ID Number: 3064, Entry into force: 1996-10-06 Depository: UN United Nations Available in: B7 p. 992:20.

<sup>103</sup> Date of adoption: 1994-06-17 Place of adoption: Paris ID Number: 3122; Available in: B7 p. 994:76, Entry into force: 1996-12-26 Depository: UN United Nations Available in: B7 p. 994:76.

<sup>104</sup> Supra, IUCN, 2000.

<sup>105</sup> Supra, WSSD, 2002.

<sup>106</sup> Supra, WSSD, 2002.

<sup>107</sup> Date of adoption: 1982-06-08 Place of adoption: Bruxelles ID Number: 2653, Entry into force: 1983-10-01 Depository: Benelux Available in: B7 p. 982:43; UNE.

<sup>108</sup> Date of adoption: 1986-11-24 Place of adoption: Nouméa ID Number: 2804.

<sup>109</sup> Date of adoption: 1991-11-07 Place of adoption: Salzburg ID Number: 3047, Entry into force: 1995-03-06 Depository: Austria Available in: B7 p. 991:83.

<sup>110</sup> Place of adoption: Managua Date of adoption: 1992-06-05 Depository: Guatemala Available in: B7 p. 992:43.

<sup>111</sup> Place of adoption: Guatemala City Date of adoption: 1993-10-29 Entry into force: 1999-10-15 Depository: Sistema de la Integración Centroamericana Available in: B7 p. 993:80.

<sup>112</sup> Place of adoption: Chambéry Date of adoption: 1994-12-20 Entry into force: 2002-12-18 Depository: Austria Available in: B7 p. 991:83/C.

<sup>113</sup> Place of adoption: Chambéry Date of adoption: 1994-12-20 Entry into force: 2002-12-18 Depository: Austria Available in: B7 p. 991:83/D.

<sup>114</sup> Place of adoption: Brdo Date of adoption: 1996-02-27 Entry into force: 2002-12-18 Depository: Austria Available in: B7 p. 991:83/E.

<sup>115</sup> Date of adoption: 1998-10-16 Place of adoption: Bled ID Number: 3212, Entry into force: 2002-12-18 Depository: Austria Available in: B7 p. 991:83/F.

- (x) 2000 Protocol for the Implementation of the Alpine Convention of 1991 Concerning Dispute Settlement.<sup>116</sup>

**Agreements**

- (i) 1985 ASEAN Agreement on the Conservation of Nature and Natural Resources;<sup>117</sup>
- (ii) 1995 Agreement on the Cooperation for Sustainable Development of the Mekong River;<sup>118</sup>

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<sup>116</sup> Place of adoption: Lausanne Date of adoption: 2000-10-31 Entry into force: 2002-12-18 Depositary: Austria Available in: B7 p. 991:83/J.

<sup>117</sup> Date of adoption: 1985-07-09 Place of adoption: Kuala Lumpur ID Number: 2722, Depositary: ASEAN Association of South-East Asian Nations Available in: B7 p. 985:51;UNE.

<sup>118</sup> Date of adoption: 1995-04-05 Place of adoption: Chiang Rai ID Number: 3145, Entry into force: 1995-04-05 Depositary: UN United Nations Available in: B7 p. 995:26.

**A. Preamble**

**B. Objective(s)**

**C. Fundamental Principles:**

- Common concern
- Sustainable development
- Prevention
- Precaution
- Information and participation of the public

**D. General obligations**

**E. Specific commitments/obligations**

1. Planning instruments and mechanisms

- National and regional strategies, plans and programmes
- Land Use Planning
  - Land use planning mechanisms for sustainable development
  - Binding zoning plans (designating areas for specific uses - e.g. agricultural, residential and tourist while planning for biological diversity conservation)
  - Special problem areas (e.g. overcoming centralised management in former Socialist Republics)
  - Construction / Building guidelines
  - Creating financial mechanisms, e.g. setting aside a portion of the proceeds from profitable ventures (e.g. projects that add value to land) in order to create Funds for EcoServices, and Disaster relief and/or prevention
  - Rights and obligations of local communities

2. Other tools

- Use of tax and other incentives for stakeholders to improve management and sustainable use of natural resources
- Use of existing indicators for sustainable development (see UN Department for Statistics), as well as development of new ones for mountain specific environmental quality goals
- Procedural rights
- EIA, risk assessment

3. Managing natural and cultural resources

- Soils
  - See also Agriculture and Forestry
  - Ensuring secure land tenure and access to land, credit and training,
  - Removing obstacles that inhibit farmers, especially small-scale farmers, from investing in and improving their lands and farms.
  - Combating soil degradation and pollution
  - Restoration measures

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<sup>119</sup> Adapted from Burhenne, W, 2002, *Prospective International Agreements for Mountain Regions*, International and Regional Agreements and Cooperation and Sustainable Mountain Development, Draft background paper A1, for Review by the Mountain Forum. Bishkek Global Mountain Summit 2002

- Forests
  - Conservation of natural forests
  - Sustainable use of forests
    - access to and use of environmentally sound technologies
    - capacity building
    - timber concessions
  - Conservation of forest for ecological and other functions (prevention of landslides & avalanches)
  - Combating deforestation and forest degradation
  - Rehabilitation and conservation strategies for countries with low forest cover
  - Rehabilitation and restoration of degraded forest lands
- Water Resources
  - Protection of the availability and quality of water resources
  - Water for sustainable food production and sustainable rural development
  - Integrated Watershed Development Programmes
    - Dams and Redirection of Watercourses
    - Enhance effective participation of local communities
    - Ensuring that downstream communities benefit from upstream activities
- Biological diversity and landscapes
  - Biological diversity
    - Species Conservation and Sustainable Use
      - Monitoring populations and habitats
      - Species management and habitat conservation
      - Controlling processes and activities with potential negative impact on species (e.g. the introduction of alien species)
    - Genetic resources and related traditional knowledge
    - Creation and management of protected areas
  - Landscapes
    - Landscape planning (see also Land Use Planning)
      - Green areas/spaces
    - Restoration and management
  - Management tools for biological diversity and landscape conservation
    - Ecosystem-based management
    - Community-based management
- Cultural heritage
  - Preservation of traditional/indigenous cultures (languages and customary ways of life)
  - Preservation of cultural sites and structures/buildings

#### 4. Managing Processes and Activities

- Agriculture and Rural Development
  - Best practices in land resources management to achieve sustainable food cycles
  - Fostering rural development with the emphasis on, inter alia, socio-economic diversification, employment, capacity-building, participation, poverty eradication, empowerment and partnerships
    - Eliminating subsidies which distort trade or conflict with existing MEAs
    - Production caps
    - Promoting alternative livelihood strategies (see Agenda 21)
    - Preserving environmentally sound traditional methods as well as promoting new ones
      - Choices in agricultural production techniques, consumption patterns and safety regulations

- Knowledge for a sustainable food system: identifying and providing for education, training, knowledge sharing and information needs
  - Land conservation and rehabilitation
    - Grazing restrictions
    - keeping livestock at appropriate levels and in appropriate areas (carrying capacity)
- Tourism
  - Limiting leisure activities with potential negative impact on the immediate environment (e.g. mountain biking, paragliding, ice-climbing, artificial snow machines etc.) to specific areas while imposing strict bans elsewhere, especially in protected areas
  - Participation of local and indigenous communities in decision making with a view to preventing activities interfering with traditional way of life or affecting their livelihood
  - Cooperation with countries tourists originate from
- Extraction and Use of Non-renewable Resources
- Energy production
  - ensuring adequate energy infrastructure for local populations
  - capacity-building and technology transfer to promote renewable energy sources
  - ensuring efficient use of fossil fuels while limiting pollution
  - involving stakeholders
- Transport (Infrastructure)
  - Limiting traffic influx vs. furthering economic development
  - Tolls for foreign cars and/or heavy loads
  - Promoting alternative modes of transportation which are more eco-friendly
- Pollution
  - Env. sound management of domestic and industrial waste, in particular hazardous wastes
  - Prevention costs (e.g. polluter pays principle)
  - Restoration and compensation measures
- Disaster Reduction (see World Disaster Reduction Campaign)
  - Prevention of adverse impact of natural hazards and of disasters caused by human activity
    - Good planning, including land use planning
    - Education and Training of stakeholders
    - Early-warning systems and forecasting
      - making latest technology available
    - Effective evacuation infrastructures
    - Transboundary Cooperation for Disaster Relief
      - Flight space permits and access of specialist teams to neighbouring territories
      - Setting up emergency funds
  - Mitigation through measures to limit adverse impact
    - Restoration costs and/or Compensation for environmental damage
      - Trust Fund for EcoServices (see above)
      - Additional funds set aside from community revenue (see also watershed management projects)

## **F. Implementation mechanisms**

- Designation of national authorities responsible for implementation
- Compliance Procedure
- Dispute Settlement

## **G. Institutional and financial aspects**

- Determining the institutional machinery:
  - Conference of the Parties
  - Subsidiary bodies
  - Secretariat

Possibility of rotating organisational and financial responsibilities between Parties (based on a rotating Presidency for a specific period of time)

- Determining COP rules and procedures
  - in particular budgetary rules (e.g. making regular budget share contingent to each Party's share of total mountainous territory, its share of total population inhabiting the area and/or total Gross Domestic Product (GDP))

**APPENDIX 5 - Summary of analysis of various international instruments against essential elements for SLM**

Instrument / Element	1992 Climate Change Convention	1995 Desertification Convention	1972 Stockholm Agreement
<p><b>Intent &amp; Purpose</b></p>	<p>Recognize the principle of sovereignty of States in international cooperation to address climate change.</p> <p>States should enact environmental legislation with appropriate environmental standards, management objectives and priorities that reflect the environmental and developmental context to which they apply.</p> <p>Steps required to understand and address climate change will be environmentally, socially and economically effective if they are based on relevant scientific, technical and economic considerations and continually re-evaluated in the light of new findings.</p> <p>Various actions to address climate change can also help solve other environmental problems.</p> <p>Recognise the need for developed countries to take comprehensive strategies at the global, national and regional levels that take into account all greenhouse gases, with due consideration of their relative contributions to the enhancement of the greenhouse</p>	<p>Art 3 – principles.</p> <p>(a) Ensure that decisions on the design and implementation of programmes to combat desertification and/or mitigate the effects of drought are taken with the participation of populations and local communities and that an enabling environment is created at higher levels to facilitate action at national and local levels.</p> <p>(b) Improve cooperation and coordination at sub regional, regional and international levels, and better focus financial, human, organizational and technical resources where they are needed.</p> <p>(c) Develop cooperation among all levels of government, communities, non-governmental organizations and landholders to establish a better understanding of the nature and value of land and scarce water resources in affected areas and to work towards their sustainable use.</p> <p>(d) Take into full consideration the special needs and circumstances of affected developing country Parties, particularly the least developed among them.</p>	<p>Proclamation</p> <p>1. The natural and the man-made environment are essential to the well-of humans and to the enjoyment of basic human rights, even the right to life itself.</p> <p>2. Protection and improvement of the human environment is a major issue that affects the well-being of peoples and economic development throughout the world; it is the urgent desire of the peoples of the whole world and the duty of all Governments.</p> <p>3. Man's capability to transform his surroundings, if used wisely, can bring to all peoples the benefits of development and the opportunity to enhance the quality of life. Wrongly or heedlessly applied, the same power can do incalculable harm to human beings and the human environment. Growing evidence of man-made harm in many regions of the earth:</p> <ul style="list-style-type: none"> <li>• Dangerous levels of pollution in water, air, earth and living beings;</li> <li>• Major and undesirable disturbances to the ecological balance of the biosphere;</li> <li>• Destruction and depletion of irreplaceable resources; and gross deficiencies,</li> <li>• Harmful to the physical, mental and social health of man, in the man-made environment, particularly in the living and working environment.</li> </ul> <p>4 In the developing countries environmental problems are caused by under-development. Millions continue to live far below the minimum levels required for a decent human existence, deprived of adequate food and clothing, shelter and education, health and sanitation.</p> <p>5. The natural growth of population continuously presents problems for the preservation of the environment, and adequate policies and measures should be adopted, as appropriate, to face these problems.</p>

			<p>6. To defend and improve the human environment for present and future generations has become an imperative goal for mankind--a goal to be pursued together with, and in harmony with, the established and fundamental goals of peace and of worldwide economic and social development.</p> <p>7. To achieve this environmental goal will demand the acceptance of responsibility by citizens and communities and by enterprises and institutions at every level, all sharing equitably in common efforts. Individuals in all walks of life as well as organizations in many fields, by their values and the sum of their actions, will shape the world environment of the future.</p> <ul style="list-style-type: none"> <li>• Local and national governments will bear the greatest burden for large-scale environmental policy and action.</li> <li>• International co-operation is needed to raise resources to support the developing countries in carrying out their responsibilities.</li> <li>• A growing class of environmental problems, because they are regional or global in extent or because they affect the common international realm, will require extensive co-operation among nations and action by international organizations in the common interest.</li> </ul>
<b>Jurisdiction</b>	<p>States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental and developmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.</p> <p>Recognize the principle of sovereignty of States in international cooperation to address climate change.</p>	<p>Rio Declaration on Environment and Development states (Principle 2), that States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental and developmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.</p>	<p>The natural and the man-made environment.</p> <p>Principle 21 - States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.</p>
<b>Responsibility</b>	<p>Art 3 – Principles</p> <p>To achieve the objective of the Convention and implement its</p>	<p>Art 4 – General obligations</p> <p>Implement their obligations under this Convention, individually or jointly, either through existing or prospective</p>	<p>Principle 1 - Man has the fundamental right to freedom, equality and adequate conditions of life, in an environment of a quality</p>

	<p>provisions:</p> <p>1. The Parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities. Developed country Parties should take the lead in combating climate change and the adverse effects.</p> <p>2. The specific needs and special circumstances of developing country Parties, especially those that are particularly vulnerable to the adverse effects of climate change, and of those Parties, especially developing country Parties, that would have to bear a disproportionate or abnormal burden under the Convention, should be given full consideration.</p> <p>3. The Parties should take precautionary measures to anticipate, prevent or minimize the causes of climate change and mitigate its adverse effects. Where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing such measures, taking into account that policies and measures to deal with climate change should be cost-effective so as to ensure global benefits at the lowest possible cost. To achieve this, such policies and measures should take into account different socio-economic contexts, be comprehensive, cover all relevant sources, sinks and reservoirs of greenhouse gases and adaptation, and comprise all economic sectors. Efforts to address climate change may be carried out cooperatively by interested Parties.</p> <p>4. The Parties should promote sustainable development. Policies and measures to protect the climate system against human-induced change should be appropriate for the specific conditions of each Party and should be integrated with national development programmes, taking into account that economic development is essential for adopting measures to address climate change.</p> <p>5. The Parties should cooperate to promote a supportive and open international economic system that would lead to sustainable economic</p>	<p>bilateral and multilateral arrangements or a combination thereof, as appropriate, emphasizing the need to coordinate efforts and develop a coherent long-term strategy at all levels.</p> <p>(a) Adopt an integrated approach addressing the physical, biological and socio-economic aspects of the processes of desertification and drought.</p> <p>(b) Give attention, within the relevant international and regional bodies, to the situation of affected developing country Parties with regard to international trade, marketing arrangements and debt with a view to establishing an enabling international economic environment conducive to the promotion of sustainable development.</p> <p>(c) Integrate strategies for poverty eradication into efforts to combat desertification and mitigate the effects of drought.</p> <p>(d) Promote cooperation among affected country Parties in the fields of environmental protection and the conservation of land and water resources, as they relate to desertification and drought.</p> <p>(e) Strengthen subregional, regional and international cooperation.</p> <p>(f) Cooperate within relevant intergovernmental organizations.</p> <p>(g) Determine institutional mechanisms, if appropriate, keeping in mind the need to avoid duplication.</p> <p>(h) Promote the use of existing bilateral and multilateral financial mechanisms and arrangements that mobilize and channel substantial financial resources to affected developing country Parties in combating desertification and mitigating the effects of drought.</p>	<p>that permits a life of dignity and well-being, and he bears a solemn responsibility to protect and improve the environment for present and future generations. In this respect, policies promoting or perpetuating apartheid racial segregation, discrimination, colonial and other forms of oppression and foreign domination stand condemned and must be eliminated.</p>
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	<p>growth and development in all Parties, particularly developing country Parties, thus enabling them better to address the problems of climate change. Measures taken to combat climate change, including unilateral ones, should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade.</p>		
<b>Goal &amp; Objectives</b>	<p>Art 2 - The Objective of the Convention and any related legal instruments that the Conference of the Parties may adopt is to achieve, in accordance with the relevant provisions of the Convention, stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a time-frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner.</p>	<p>Art 2 - Objective</p> <ol style="list-style-type: none"> <li>1. To combat desertification and mitigate the effects of drought in countries experiencing serious drought and/or desertification, particularly in Africa, through effective action at all levels, supported by international cooperation and partnership arrangements, in the framework of an integrated approach which is consistent with Agenda 21, with a view to contributing to the achievement of sustainable development in affected areas.</li> <li>2. Achieving this objective will involve long-term integrated strategies that focus simultaneously, in affected areas, on improved productivity of land, and the rehabilitation, conservation and sustainable management of land and water resources, leading to improved living conditions, in particular at the community level.</li> </ol>	
<b>Definitions</b>	<p>Article 1 Definitions:</p> <ol style="list-style-type: none"> <li>1. "Adverse effects of climate change" means changes in the physical environment or biota resulting from climate change which have significant deleterious effects on the composition, resilience or productivity of natural and managed ecosystems or on the operation of socio-economic systems or on human health and welfare.</li> <li>8. "Sink" means any process, activity or mechanism which removes a greenhouse gas, an aerosol or a precursor of a greenhouse gas from the atmosphere.</li> <li>9. "Source" means any process or activity which releases a greenhouse gas, an aerosol or a precursor of a greenhouse gas into the atmosphere.</li> </ol>	<ol style="list-style-type: none"> <li>(a) "desertification" means land degradation in arid, semi-arid and dry sub-humid areas resulting from various factors, including climatic variations and human activities;</li> <li>(b) "combating desertification" includes activities which are part of the integrated development of land in arid, semi-arid and dry sub-humid areas for sustainable development which are aimed at: (i) prevention and/or reduction of land degradation; (ii) rehabilitation of partly degraded land; and (iii) reclamation of desertified land;</li> <li>(f) "land degradation" means reduction or loss, in arid, semi-arid and dry sub-humid areas, of the biological or economic productivity and complexity of rainfed cropland, irrigated cropland, or range, pasture, forest and woodlands resulting from land uses or from a process or combination of processes, including processes arising from human</li> </ol>	

		<p>activities and habitation patterns, such as:</p> <ul style="list-style-type: none"> <li>(i) soil erosion caused by wind and/or water;</li> <li>(ii) deterioration of the physical, chemical and biological or economic properties of soil; and</li> <li>(iii) Long-term loss of natural vegetation.</li> </ul>	
<b>Duty of Care</b>	<p>Art 4 – Commitments</p> <p>Develop, update, and publish national inventories of anthropogenic emissions by sources and removals by sinks of all greenhouse gases.</p> <p>Formulate, implement, publish and regularly update national and regional programmes containing measures to mitigate climate.</p> <p>Promote and cooperate in the development, application and diffusion, including transfer, of technologies, practices and processes that control greenhouse gases.</p> <p>Promote sustainable management, and conservation of sinks and reservoirs of all greenhouse gases including biomass, forests and oceans as well as other terrestrial, coastal and marine ecosystems.</p> <p>Adapt to the impacts of climate change; develop and elaborate appropriate and integrated plans for coastal zone management, water resources and agriculture, and for the protection and rehabilitation of areas.</p> <p>Take climate change considerations into account in social, economic and environmental policies and actions.</p> <p>Cooperate in scientific, technological, technical, socio-economic and other research, systematic observation and development of data archives related to the climate system.</p> <p>Promote and cooperate in the full, open and prompt exchange of relevant scientific, technological, technical, socio-economic and legal information related to the climate system and climate change, and to the economic and social consequences of various response strategies.</p> <p>Cooperate in education, training and public awareness related to climate change and encourage the widest participation in this process, including that of non-governmental</p>	See Art 4 – general obligations.	<p>Principle 8 - Economic and social development is essential for ensuring a favorable living and working environment for man and for creating conditions on earth that are necessary for the improvement of the quality of life.</p> <p>Principle 11 - The environmental policies of all States should enhance and not adversely affect the present or future development potential of developing countries, nor should they hamper the attainment of better living conditions for all, and appropriate steps should be taken by States and international organizations with a view to reaching agreement on meeting the possible national and international economic consequences resulting from the application of environmental measures.</p> <p>Principle 26 - Man and his environment must be spared the effects of nuclear weapons and all other means of mass destruction. States must strive to reach prompt agreement, in the relevant international organs, on the elimination and complete destruction of such weapons.</p>

	<p>organizations.</p> <p>2 – Developed country Parties and other Parties commit themselves to:</p> <p>Adopt national policies (including policies and measures adopted by regional economic integration organizations) and take corresponding measures on the mitigation of climate change.</p> <p>Policies and measures that demonstrate that developed countries are taking the lead in modifying longer-term trends in anthropogenic emissions consistent with the objective of the Convention.</p> <p>Implement policies and measures jointly with other Parties and may assist other Parties in contributing to the achievement of the objective of the Convention.</p> <p>Communicate detailed information on policies and measures as well as on its resulting projected anthropogenic emissions by sources and removals by sinks of greenhouse gases.</p> <p>Calculations of emissions by sources and removals by sinks of greenhouse gases should take into account the best available scientific knowledge.</p> <p>Coordinate with other such Parties, relevant economic and administrative instruments developed to achieve the objective of the Convention and identify and periodically review its own policies and practices.</p>		
<p><b>Hierarchy of Responsibility</b></p>	<p>Art 4 – Commitments of Parties.  Art - Conference to Parties.  Art 8 – Secretariat.  Art 9 –Subsidiary body science and technological advice.  Art 10 – Subsidiary body for implementation.</p>	<p>Art 4 –general obligations.  Art 7 – priority for Africa.  Annex II – regional implementation for Asia.  Art 9 – basic approach.  Art 10 National action plans.  Art 11 – sub-regional and regional action programs.  Art 12 – international cooperation.</p>	<p>Principle 22 - States shall cooperate to develop further the international law regarding liability and compensation for the victims of pollution and other environmental damage caused by activities within the jurisdiction or control of such States to areas beyond their jurisdiction.</p> <p>Principle 23 - Without prejudice to such criteria as may be agreed upon by the international community, or to standards which will have to be determined nationally, it will be essential in all cases to consider the systems of values prevailing in each country, and the extent of the applicability of standards which are valid for the most advanced countries but which may be inappropriate and of unwarranted social cost for the</p>

			<p>developing countries.</p> <p>Principle 24 - International matters concerning the protection and improvement of the environment should be handled in a co-operative spirit by all countries, big and small, on an equal footing. Co-operation through multilateral or bilateral arrangements or other appropriate means is essential to effectively control, prevent, reduce and eliminate adverse environmental effects resulting from activities conducted in all spheres; in such a way that due account is taken of the sovereignty and interests of all States.</p>
<b>Institutional</b>	<p>Various responsibilities under –</p> <p>Art 4 – Commitments of Parties.</p> <p>Art - Conference to Parties.</p> <p>Art 8 – Secretariat.</p> <p>Art 9 –Subsidiary body science and technological advice.</p> <p>Art 10 – Subsidiary body for implementation.</p> <p>Art 12 – communication of information related to implementation.</p>	<p>Art 22 – conference of the parties.</p> <p>Art 23 – permanent secretariat.</p> <p>Art 24 – committee on science and technology.</p>	<p>Principle 17 - Appropriate national institutions must be entrusted with the task of planning, managing or controlling the environmental resources of States with a view to enhancing environmental quality.</p> <p>Principle 25 - States shall ensure that international organizations play a co-ordinate, efficient and dynamic role for the protection and improvement of the environment.</p>
<b>Policy</b>	<p>Art 42 (a) - Each of these Parties shall adopt national policies and measures adopted by regional economic integration organizations and take corresponding measures on the mitigation of climate change, by limiting its anthropogenic emissions of greenhouse gases and protecting and enhancing its greenhouse gas sinks and reservoirs. These policies and measures will demonstrate that developed countries are taking the lead in modifying longer-term trends in anthropogenic emissions consistent with the objective of the Convention</p>	<p>Art 4 – general obligations.</p> <p>Art 9 – basic approach.</p> <p>Art 10 – national action programs.</p>	<p>Principle 16 - Demographic policies which are without prejudice to basic human rights and which are deemed appropriate by Governments concerned should be applied in those regions where the rate of population growth or excessive population concentrations are likely to have adverse effects on the environment of the human environment and impede development.</p>
<b>Education</b>	<p>Art 6 - (a) Facilitate at the national and sub regional and regional levels, and in accordance with national laws and regulations, and within their respective capacities:</p> <p>(i) The development and implementation of educational and public awareness programmes on climate change and its effects;</p> <p>(ii) Public access to information on climate change and its effects;</p> <p>(iii) Public participation in addressing climate change and its effects and developing adequate responses; and (iv) Training of scientific, technical and managerial</p>	<p>Art 19 - capacity building, education and public awareness. Parties recognize the significance of capacity building, institution building, training and development of relevant local and national capacities, in efforts to combat desertification and mitigate the effects of drought.</p> <p>Extensive provisions.</p>	<p>Principle 19 - Education in environmental matters, for the younger generation as well as adults, giving due consideration to the underprivileged, is essential in order to broaden the basis for an enlightened opinion and responsible conduct by individuals, enterprises and communities in protecting and improving the environment in its full human dimension. It is also essential that mass media of communications avoid contributing to the deterioration of the environment, but, on the contrary, disseminate information of an educational nature on the need to protect and</p>

	<p>personnel.</p> <p>(b) Cooperate at the international level, and, where appropriate, using existing bodies:</p> <p>(i) The development and exchange of educational and public awareness material on climate change and its effects; and</p> <p>(ii) The development and implementation of education and training programmes, including the strengthening of national institutions and the exchange or second personnel to train experts in this field, in particular for developing countries.</p>		<p>improve the environment in order to enable man to develop in every respect.</p>
<b>Research</b>	<p>Art 5 - research and systematic observation</p> <p>(a) Support international and intergovernmental programmes and networks or organizations aimed at defining, conducting, assessing and financing research, data collection and systematic observation.</p> <p>(b) Support international and intergovernmental efforts to strengthen systematic observation and national scientific and technical research capacities and capabilities, particularly in developing countries.</p> <p>(c) Take into account the particular concerns and needs of developing countries.</p> <p>Art 9 – Subsidiary body for scientific and technological advice.</p>	<p>Art 17 - research and development. Parties undertake, according to their respective capabilities, to promote technical and scientific cooperation in the fields of combating desertification and mitigating the effects of drought through appropriate national, subregional, regional and international institutions.</p> <p>Extensive provisions.</p>	<p>Principle 18 - Science and technology, as part of their contribution to economic and social development, must be applied to the identification, avoidance and control of environmental risks and the solution of environmental problems and for the common good of mankind.</p> <p>Principle 20 - Scientific research and development in the context of environmental problems, both national and multinational, must be promoted in all countries, especially the developing countries. In this connection, the free flow of up-to-date scientific information and transfer of experience must be supported and assisted, to facilitate the solution of environmental problems; environmental technologies should be made available to developing countries on terms which would encourage their wide dissemination without constituting an economic burden on the developing countries.</p>
<b>Community participation</b>	<p>Art 6 – education and training</p>	<p>See Art 19 – capacity building, education and public awareness</p>	
<b>Land planning</b>	<p>Art 4 – Commitments</p>	<p>Part III - Action Programs, Scientific and Technical Cooperation and Supporting Measures Section 1 – Actions Programs</p> <p>Art 9 – Basic Approach Art 10 – National Action Programs Art 11 – Subregional and Regional Action Programs Art 12 – International Cooperation Art 13 – Support for Action Programs Art 14 – Coordination in the Implementation of Action Programs Art 15 - Regional Implementation Annexes Art 16 – Information Collection,</p>	<p>Principle 2 - The natural resources of the earth, including the air, water, land, flora and fauna and especially representative samples of natural ecosystems, must be safeguarded for the benefit of present and future generations through careful planning or management, as appropriate.</p> <p>Principle 7 - States shall take all possible steps to prevent pollution of the seas by substances that are liable to create hazards to human health, to harm living resources and marine life, to damage</p>

		<p>Analysis and Exchange  Art 17 – Research and Development  Art 18 – Transfer, Acquisition, Adaption and Development of Technology  Annex II – Regional Implementation, Annex for Asia</p> <p>Art 1 – Purpose to provide guidelines and arrangements for the effective implementation of the Convention in the affected country Parties of the Asian region in the light of its particular conditions.</p> <p>Art 2- Particular conditions for Asian Region, take into consideration the following particular conditions which apply in varying degrees to the affected country Parties of the region:</p> <ul style="list-style-type: none"> <li>• The high proportion of areas in their territories affected by, or vulnerable to, desertification and drought and the broad diversity of these areas with regard to climate, topography, land use and socio-economic systems.</li> <li>• The heavy pressure on natural resources for livelihoods.</li> <li>• The existence of production systems, directly related to widespread poverty, leading to land degradation and to pressure on scarce water resources.</li> <li>• The significant impact of conditions in the world economy and social problems such as poverty, poor health and nutrition, lack of food security, migration, displaced persons and demographic dynamics.</li> <li>• The expanding, but still insufficient, capacity and institutional frameworks to deal with national desertification and drought problems.</li> <li>• The need for international cooperation to pursue sustainable development objectives relating to combating desertification and mitigating the effects of drought.</li> </ul> <p>Art 3 – Asia - Framework for National Action Programs</p> <ul style="list-style-type: none"> <li>• National action programmes shall be an integral part of broader national policies for sustainable development of the affected country Parties of the region.</li> <li>• The affected country Parties develop national action</li> </ul>	<p>amenities or to interfere with other legitimate uses of the sea.</p> <p>Principle 12 - Resources should be made available to preserve and improve the environment, taking into account the in circumstances and particular requirements of developing countries and any costs which may emanate from their incorporating environmental safeguards into their development planning and the need for making available to them, upon their request, additional international technical and financial assistance for this purpose.</p> <p>Principle 13 - In order to achieve a more rational management of resources and thus to improve the environment, States should adopt an integrated and coordinated approach to their development planning so as to ensure that development is compatible with the need to protect and improve environment for the benefit of their population.</p> <p>Principle 14 - Rational planning constitutes an essential tool for reconciling any conflict between the needs of development and the need to protect and improve the environment.</p> <p>Principle 15 - Planning must be applied to human settlements and urbanization with a view to avoiding adverse effects on the environment and obtaining maximum social, economic and environmental benefits for all. In this respect, projects which are designed for colonialist and racist domination must be abandoned.</p>
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		<p>programmes pursuant to Articles 9 to 11 of the Convention, paying special attention to Article 10, paragraph 2 (f).</p> <ul style="list-style-type: none"> <li>• As appropriate, bilateral and multilateral cooperation agencies may be involved in this process at the request of the affected country Party concerned.</li> </ul> <p>Art 4 - Asia - National Action Programs</p> <p>In preparing and implementing national action programmes, the affected country Parties of the region, consistent with their respective circumstances and policies, may, inter alia, as appropriate:</p> <ol style="list-style-type: none"> <li>(a) Designate appropriate bodies responsible for the preparation, coordination and implementation of their action programmes;</li> <li>(b) Involve affected populations, including local communities, in the elaboration, coordination and implementation of their action programmes through a locally driven consultative process, with the cooperation of local authorities and relevant national and non-governmental organizations;</li> <li>(c) Survey the state of the environment in affected areas to assess the causes and consequences of desertification and to determine priority areas for action;</li> <li>(d) Evaluate, with the participation of affected populations, past and current programmes for combating desertification and mitigating the effects of drought, in order to design a strategy and elaborate activities in their action programmes;</li> <li>(e) Prepare technical and financial programmes based on the information derived from the activities in subparagraphs (a) to (d);</li> <li>(f) Develop and utilize procedures and benchmarks for evaluating implementation of their action programmes;</li> <li>(g) Promote the integrated management of drainage basins, the conservation of soil resources, and the enhancement and efficient use of water resources;</li> <li>(h) Strengthen and/or establish information, evaluation and follow up and early warning systems in regions prone to</li> </ol>	
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		<p>desertification and drought, taking account of climatological, meteorological, hydrological, biological and other relevant factors;</p> <p>(i) Formulate in a spirit of partnership, where international cooperation, including financial and technical resources, is involved, appropriate arrangements supporting their action programmes.</p> <p>2. Consistent with Article 10 of the Convention, the overall strategy of national action programmes shall emphasize integrated local development programmes for affected areas, based on participatory mechanisms and on the integration of strategies for poverty eradication into efforts to combat desertification and mitigate the effects of drought. Sectoral measures in the action programmes shall be grouped in priority fields which take account of the broad diversity of affected areas in the region referred to in Article 2 (a).</p> <p>Art 5 – Asia - Sub-Regional and Joint Action Program</p> <p>1. Affected country Parties in Asia may mutually agree to consult and cooperate with other Parties to prepare and implement subregional or joint action programmes in order to complement, and increase effectiveness in the implementation of, national action programmes.</p> <p>Parties may jointly agree to entrust subregional, including bilateral or national organizations, or specialized institutions, with responsibilities relating to the preparation, coordination and implementation of programmes. Such organizations or institutions may also act as focal points for the promotion and coordination of actions pursuant to Articles 16 to 18 of the Convention.</p> <p>2. In preparing and implementing subregional or joint action programmes, the affected country Parties of the region shall, inter alia, as appropriate:</p> <p>(a) Identify, in cooperation with national institutions, priorities relating to combating desertification and mitigating the effects of drought which can</p>	
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		<p>better be met by such programmes, as well as relevant activities which could be effectively carried out through them;</p> <p>(b) Evaluate the operational capacities and activities of relevant regional, subregional and national institutions;</p> <p>(c) Assess existing programmes relating to desertification and drought among all or some parties of the region or subregion and their relationship with national action programmes;</p> <p>(d) Formulate in a spirit of partnership, where international cooperation, including financial and technical resources, is involved, appropriate bilateral and/or multilateral arrangements supporting the programmes.</p> <p>3. Subregional or joint action programmes may include agreed joint programmes for the sustainable management of transboundary natural resources relating to desertification, priorities for coordination and other activities in the fields of capacity building, scientific and technical cooperation, particularly drought early warning systems and information sharing, and means of strengthening the relevant subregional and other organizations or institutions.</p> <p>Art 6 - Asia - Regional Activities</p> <p>Regional activities for the enhancement of subregional or joint action programmes may include, inter alia, measures to strengthen institutions and mechanisms for coordination and cooperation at the national, subregional and regional levels, and to promote the implementation of Articles 16 to 19 of the Convention. These activities may also include:</p> <p>(a) Promoting and strengthening technical cooperation networks;</p> <p>(b) Preparing inventories of technologies, knowledge, know-how and practices, as well as traditional and local technologies and know-how, and promoting their dissemination and use;</p> <p>(c) Evaluating the requirements for technology transfer and promoting the adaptation and use of such technologies;</p> <p>(d) Encouraging public awareness</p>	
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		programmes and promoting capacity building at all levels, strengthening training, research and development and building systems for human resource development.	
<b>Land management</b>	Art 4 – Commitments	Part III - Action Programs, Scientific and Technical Cooperation and Supporting Measures Section 1 – Actions Programs  Art 9 – Basic Approach Art 10 – National Action Programs Art 11 – Subregional and Regional Action Programs Art 12 – International Cooperation Art 13 – Support for Action Programs Art 14 – Coordination in the Implementation of Action Programs Art 15 - Regional Implementation Annexes Art 16 – Information Collection, Analysis and Exchange Art 17 – Research and Development Art 18 – Transfer, Acquisition, Adaption and Development of Technology	
<b>Finance</b>	Art 11 – financial mechanism	Arts 20, 21 – financial resources and mechanisms	Principle 9 - Environmental deficiencies generated by the conditions of under-development and natural disasters pose grave problems and can best be remedied by accelerated development through the transfer of substantial quantities of financial and technological assistance as a supplement to the domestic effort of the developing countries and such timely assistance as may be required.  Principle 10 - For the developing countries, stability of prices and adequate earnings for primary commodities and raw materials are essential to environmental management since economic factors as well as ecological processes must be taken into account.
<b>Enforcement</b>	Art 14 – settlement of disputes	Art 27 – measures to resolve questions on implementation	No specific
<b>Dispute settlement</b>		Art 28 – settlement of disputes	No specific