KYRGYZ REPUBLIC
MINISTRY OF ECOLOGY AND EMERGENCIES
GLOBAL ENVIRONMENT FACILITY
UNITED NATIONS DEVELOPMENT PROGRAMME IN KYRGYZSTAN

GLOBAL ENVIRONMENTAL CONVENTIONS: CROSS-SECTORAL INTERACTION AND CAPACITY BUILDING IN KYRGYZSTAN

BISHKEK - 2005

УДК 502/504
ББК 28.081
Г 54

Г 54 Global Environmental Conventions: Cross-sectoral Interaction and Capacity Building in Kyrgyzstan. - B. : 2005.
123 - p.

ISBN 9967-22-880-6

The publication reflects the main outcomes of the GEF/UNDP (KYR/03/G31) National Capacity Self-Assessment for Global Environment Management Project and contains analysis of cross-sectoral interaction and Strategic Action Plan of national capacity building of the Kyrgyz Republic for the implementation of three global environmental conventions: the United Nations Convention on Biological Diversity; United Nations Convention to Combat Desertification/Land Degradation; United Nations Framework Convention on Climate Change.

Г 1903040000-05

ISBN 9967-22-880-6

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INTRODUCTION

The United Nations Development Programme supports efforts to achieve the Millennium Development Goals. Within these efforts the UNDP took the initiative to develop and assess the capacity for implementing global environmental conventions: The United Nations Convention on Biological Diversity, United Nations Convention to Combat Desertification/Land Degradation and the United Nations Framework Convention on Climate Change.

This publication is a result of the GEF/UNDP National Capacity Self-Assessment for Global Environment Management Project (NCSA-Kyrgyzstan). The project aims at identifying the national priorities and country needs for capacity building to implement alternative conventions. The achievement of project objectives is possible through dialogue, coordinated activities, and partnership between stakeholders using NCSA processes.

The project's results are innovative and can be used as a model for actions directed at combining efforts to strengthen cooperation in various areas of environmental protection in the country. They undoubtedly give a new impulse to implementing the Environmental Protection component of the New Country Programme Action Plan for 2005-2010.

I hope the present will stimulate comprehensive cooperation in biodiversity conservation, combating desertification and overcoming the negative consequences of climate change in order to ensure friendly and sound environment for the present and future generations, and broadly, for sustainable development of the Kyrgyz Republic.

Jerzy Skuratowicz
Resident Representative
UNDP-Kyrgyzstan

ACKNOWLEDGMENTS

Realizing the importance of the Sustainable Development and the Protection of the Environment Concepts our country is more actively becoming involved in the world community activity aimed at restraining environmental threats. Kyrgyzstan has signed the UN Conference documents on Environment and Development and ratified the United Nations Convention on Biological Diversity, United Nations Convention to Combat Desertification/Land Degradation and the United Nations Framework Convention on Climate Change.

The main goal of the GEF/UNDP National Capacity Self-Assessment for Global Environment Management Project (NCSA-Kyrgyzstan) has been achieved: assessing the necessity to build capacity for the implementation of three United Nations Conventions and we expect progress in organizing a clear and overall process of environmental and nature management activities that contributes to the sustainable development at local, national, regional and global levels.

This publication reflects the summarized project results that identified the main factors and problems restraining capacity development for implementing three conventions in Kyrgyzstan and identify approaches to overcome these issues in key directions: improving legislation; strengthening inter-sectoral coordination; developing an economic stimulating system; implementing market mechanisms and transferring innovative technologies; monitoring; information mobilization and training at all levels.

One of the NCSA project results is a sociological survey that was based on intensive consultations with representatives of all stakeholders: governmental and nongovernmental organizations, the business sector, scientific society and local authorities. This provided a basis for developing recommendations on national capacity building. It determines wide possibilities for joint activities to guarantee sustainable development whilst implementing the obligations under the global enviromental conventions.

On behalf of the GEF/UNDP National Capacity Self-Assessment for Global Environment Management Project we would like to express our gratitude to the Global Environment Facility and the United Nations Development Programme for financial, technical and organizational support, thanks to which the project was implemented.

I would also like to express my gratitude to the specialists of the UNDP in Kyrgyzstan, UNDP Bratislava Regional Centre, other international organizations for references, information and other material, professional consultations and permanent methodological assistance that contribute to the NCSA process in Kyrgyzstan.

We also express our sincere appreciation to the representatives of ministries, institutions, scientific and civil societies of the republic for their competent and interested participation during the stages of project implementation, which gave objectiveness to the conducted surveys.

Omor Rustembekov,
National Director of the NCSA Project,
Director of the Department of Ecology and
Nature Management, MEE

CONTENTS

LIST OF ABBREVIATIONS

ACS	Agricultural Consultation Service
ADB	Asian Development Bank
CA	Central Asia
CACILRM	Central Asian Countries Initiative for Land Resources Management
CAMP	Central Asian Mountain Programme
CASCS	Centre for Agrarian Science and Consultation Service
CDF	Comprehensive Development Framework of the KR till 2010
CDHM	Main Hydrometeorology Department under the Ministry of Ecology and Emergencies
CFM	Community Forest Management
CIDA	Canadian International Development Agency
DFID	Department for International Development of the UK Government
EU	The European Union
FAO	Food and Agriculture Organization of the United Nations
GEC	Global Environmental Conventions, including CBD, CCD and FCCC
GEF	Global Environment Facility
GDP	Gross Domestic Product
GF	Global Facility of CBD UN
GTZ	German Society for Technical Cooperation
HEE	Higher Educational Establishment
ICARDA	International Centre for Agricultural Research in the Dry Areas
IDA	International Development Association
IFAD	International Fund for Agricultural Development
ISO	International Organization for Standardization
IUCN	The World Conservation Union
JICA	Japan International Cooperation Agency
KARIS	Kyrgyz Agricultural and Industrial Market Information System
KR	Kyrgyz Republic
LFNC	Local Fund for Nature Conservation
MAWRPI	Ministry of Agriculture, Water Resources and Processing Industry
MEE	Ministry of Ecology and Emergencies of the KR
MM	Mass media
NAS	National Academy of Sciences of the KR
NCSA	National Capacity Self-Assessment for Global Environment Management
NCSD	National Commission for Sustainable Development
NGO	Non-governmental organization
NISM	National Institute for Standards and Metrology of the KR
NSC	National Statistics Committee of the KR
NPACD	National Programme of Actions to Combat Desertification
NPAEC	National Action Plan for Conservation of the Environment
NPRS	National Poverty Reduction Strategy

NSSD	National Strategy on Sustainable Development
OECD	Organization for Economic Cooperation and Development
RETA	ADB Regional Technical Assistance Programme
RFNC	Regional Fund for Nature Conservation
RIOD	International NGO Network on Desertification and Draught
SAPBDC	Strategy and Action Plan for Biodiversity Conservation
SDC	Swiss Agency for Development and Cooperation
SFS	State Forestry Service of the KR
SGP GEF	Small Grants Programme of GEF
SPA	Strategic Partnership Agreement
SPC	State Committee of the KR for state property management
SPNR	Specially Protected Nature Reserves
STATE REGISTRY	State agency for registering rights to immovable property under the Government of the KR
SRI	Scientific Research Institute
TACIS	Technical Assistance to the Commonwealth of Independent States and Mongolia
TPC	Territorial Public Councils
UN	United Nations Organization
UNCBD	United Nations Convention on Biodiversity
UNCCD	United Nations Convention to Combat Desertification
UNFCCC	United Nations Framework Convention on Climate Change
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNIDO	United Nations Industrial Development Organization
UNITAR	United Nations Institute for Training Assistance and Research
USAID	United States Agency for International Development
WB	The World Bank
WUA	Water Users' Association
WWF	The Global Conservation Organization

FOREWORD

This publication contains the results of the GEF/UNDP National Capacity Self-Assessment for Global Environment Management Project (NCSA-Kyrgyzstan) that was implemented in a partnership between the UNDP and the Government of the KR with financial support from the GEF. The executive agency of the project is the Ministry of Ecology and Emergencies of the Kyrgyz Republic.

The main goal of the project is identifying and analysing the priorities and needs to build capacity for the implementation of three global environmental conventions (GEC):

- United Nations Convention on Biological Diversity;
- United Nations Convention to Combat Desertification/Land Degradation;
- United Nations Framework Convention on Climate Change.

The reason for joining the GEC is a government policy aimed at involving the country in world integration processes with the aim of using mechanisms of international cooperation and external support to successfully solve national social, economic and environmental issues.

At the same time the GEC ratification set for Kyrgyzstan defined commitments, including a responsibility for developing strategies and action plans for climate change mitigation measures, desertification and degradation processes, and conservation of biological diversity.

The project implemented from January 2004 to September 2005 included three stages.

Within the first stage (January 2004 – October 2004) was made an inventory of the current and previous national activities necessary to fulfill the commitments of the three global conventions.

The main efforts during this stage were focused on collecting and systemizing data that characterize the tendencies of climate change, land funds and biological resources in the Kyrgyz Republic as a result of natural and anthropogenic impacts. Most attention was paid to a critique analysis of the conditions of nature management and environmental activities in the country during the previous ten years and identifying the main participants of the conventions' implementation process. It was also focused on identifying the reasons that restrain and contribute to the effective implementation of each GEC obligation. The results of the first stage were assessed by experts in key ministries and institutions during a NCSA sub regional workshop for the Central Asian countries (Bishkek, January 25-26 2005) and national and international workshops. The results of the first stage are also reflected in the Global ecological conventions: capacities of Kyrgyzstan. Subject Review (Bishkek, 2004)

NCSA Sub-Regional Workshop for Cental Asian countries (Bishkek January 2005)

Within the second stage (November 2004 – February 2005) the project activity was concentrated on:

- analysis of cross-cutting interaction while implementing the three conventions;
- identifying and systemizing the constraining and contributing factors to fulfilling the conventions'

obligations;
- identifying stakeholders' capacities – administration units at all levels, business sector, local communities, non-governmental, scientific and research organizations for cooperation and synergies in implementing the conventions' commitments;
- developing synergy mechanisms and improving activity coordination under the three conventions;
- developing systematic approaches for effective GEC needs considering the substantial similarity of basic implementation mechanisms in the UNCBD, UNCCD and UNFCCC;
- formulating priority actions aimed at national capacity strengthening.

Results of the stage reflected in the, analysis of cross-sectoral interaction for implementing global environmental conventions part of this publication, allowed us to identify factors that restrain capacity building: sectoral and institutional disconnection; weak public and participants' awareness in the field of nature protection and lack of an effective stimulus and motivation to activate it; corruption; institutional monopolisation and disconnection, latent "fight" for resources; lack of human resources policy.

The process of cross-cutting analysis identified the main directions for strengthening synergy for capacity building in three thematic areas; identified levels of cross-cutting conventions' articles for the main stakeholders and also approaches were developed for coordinated measures for their fulfillment with the aim of inter- and intra- institutional coordination and to avoid duplicating efforts.

To identify the stakeholders' qualitative capacity; was made an assessment of the constraints, needs and capacity building in three pilot regions, which allowed the real situation and professional and public opinion of process participants to be considered more objectively.

Working meeting between the DialectIKON Ltd. sociological group and project experts

With the aim of developing coordinated approaches, a series of consultations, discussions and group expertise meetings were held and the recommendations of stakeholders were obtained during the cross-cutting analysis process. The materials of the second stage were appraised during the round table of interested parties discussing the cross-cutting analysis results (Bishkek, February 2005)

Development and coordination of the final document – the Strategic Action Plan on capacity building of Kyrgyzstan for the Implementing Global Environmental Conventions has been carried out within the framework of **the III (final) project phase (February-September 2005).**

The document ideology is based on the main principles of environmental policy, identified in the Strategic Action Plan considering the norms of International and National Legislation and UNCCD, UNCBD, UNFCCC requirements. This document is seen as a tool for the effectiveness of actions that will be implemented after the assessment process in mobilizing actions and strengthening the implementation of obligations under the three conventions.

Integration of the basic provisions of the Strategic Action Plan (SAP) into the above-mentioned programmes is assumed for their implementation in the package of actions on poverty reduction, improving the health and living standards of the population and other important socio-economic challenges of the country considering the initiation of developing a new phase of the National Poverty Reduction Strategy in the country within the Comprehensive Development Framework of Kyrgyzstan and a New UN Country Development Programme in the Kyrgyz Republic for 2006-2010.

The process of capacity building is systemized in 6 areas of the Strategic Action Plan:

- national legislative and regulatory base connected with commitments under the three conventions;
- institutional capacity building and strengthening of coordination;
- market mechanism and economic incentives system capacity building;
- new technologies capacity building;
- information, knowledge and education mobilization capacity;
- monitoring and accountability of capacity building.

Kyrgyzstan has already developed and enacted programme documents and strategies executing a range of measures on the implementation of each Convention: UNCCD, UNCBD, UNFCCC. The Strategic Plan is aimed at combining the efforts of all on-going and potential executors based on synergies and involving not only the executing agencies (Ministry of Environment and Emergencies (MEE), Ministry of Agriculture, Water Resources and Processing Industry (MAWRPI), State Forestry Agency), but also other stakeholders, who haven't shown themselves as potential participants in the three conventions.

Looking through the material of the sociological survey at a working group meeting (Bishkek, March 2005)

Each priority task of the Strategic Action Plan sets expected outputs, approximate execution period, assumed internal and external financial sources and a list of executors and partners. A system of indicators including 100 indices and covering all aspects of capacity building has been offered for assessing the efficiency of the planned actions.

A package of proposals on the implementation of pilot projects has been developed within the frame of NCSA project. It is expected that implementation of these proposals will contribute to achieving the main goal and objectives of the project, provide synergies of national interests and the investment capacity of operational programmes and the strategic priorities of GEF (ANNEX 4).

As an initiative within the cross-cutting analysis, attempts were made to assess the environmental impact on the population's health and to integrate gender approaches into the process of capacity building to implement the commitments under the three conventions.

The publication in its transitional and final stages of preparation has been approved during expert assessment and review with the help of state management bodies and other important participants in environmental activity. Constructive notes and proposals voiced during workshops and final public discussions at the round table (Bishkek, July 2005) were used and included in the final version of the report.

Round Table on discussion the result of the II and III project phases (Bishkek, July 2005)

The proposed study can be used by state bodies, international and donor organizations, representatives of local communities and public organizations, NGO, business structures and other participants of the commitments under the three conventions.

I. ANALYSIS OF CROSS-SECTORAL INTERACTION IN IMPLEMENTING GLOBAL ENVIROMENTAL CONVENTIONS

1. JUSTIFICATION AND MECHANISMS OF PROCESS IMPLEMENTATION

In 2000 Kyrgyzstan, like the majority of countries of the world adopted the Millennium Declaration[1], establishing the Millennium Development Goals, which determine priority directions completely corresponding to the national interests of Kyrgyzstan and reflected in the Constitution of the country, CDF, NPRS and other most important programme documents of the country. The Millennium Declaration, Capacity Platform 2015, adopted in Johannesburg in 2002 presents a general approach to the key problems of mankind on the eve of the 21st Century. Those documents establish as the main priorities increasing the capacity of each country for the effective use of resources, capacity strengthening at national level in developing the economy, society and environment. The process of assessing the needs for country capacity building for carrying out activities to implement the obligations of three global enviromental conventions is the most important step in achieving the specified goals. Within the frameworks of the GEF/UNDP National Self-Assessment Capacity for Global Enviromental Management Project, Kyrgyzstan got involved in this process in January 2004. The project envisions three implementation phases.

Box 1

NCSA gives a unique opportunity to transfer Global Agenda of the Day to the national and local levels through building the strategic partnerships with other national processes

Ms. Keti Chachibaia, UNDP/GEF RCU, Bratislava

NCSA-Kyrgyzstan Project Inception workshop (Bishkek, February 2004)

Within the frameworks of Phase 1 an inventory– review was made of the status and previous national actions to implement the obligations under the three global conventions. The outputs of this phase are reflected in a separate publication[2] .

The main goals of **Phase ll** of the project were studying interested parties' (stakeholders[3]) capacity to implement obligations under GEC and also factors preventing or promoting implementation of he obligations at national level and public involvement in the processes of taking decisions in nature resources management. A description of the current capacity and recommendations for its strengthening were considered at **system** (the creation of political, economic, regulatory, legal structures and system of reporting), **institutional** or organizational (through effective use of human, administrative, financial, technical resources and through strengthening inter and internal sector cooperation), and at the **individual** (first of all through a transfer of knowledge and skills by means of training) levels.

[1] Adopted by Resolution 55/2 of the General Assembly of the United Nations dated September 8th 2000
[2] Global ecological conventions: capacities of Kyrgyzstan. Subject Review. - B. UNDP, 2004
[3] The term Stakeholder is treated as an interested party, interested participant, partner.

Phase III (final) of the project was targeted at developing and approving the final document – Strategic Action Plan (SAP) for building Kyrgyzstan's capacity to implement global enviromental conventions. **This publication contains the final outputs of phases II and III of the project.**

Interested parties of the NCSA process

An analysis of cross-sectoral interection to implement obligations under three conventions made within the frameworks of phase II of the project was made with regard to the general provisions of conventions (ANNEX 1) with the purpose of ensuring the strengthening of the effectiveness of the planned activities at national level by applying a synergetic approach, given that the concept of synergy is not common in the country's management practice and there are many contradictions and misunderstanding in its perception.

It is evident that the application of synergy methodology increases the effectiveness of the recommended measures aimed at implementing the requirements of each convention and also to concentrate stakeholders' efforts at all levels (ministries, agencies, public organizations and others) on the development of coordinated optimized decisions.

Stakeholders' participation was obtained through detailed interviews with key persons within the decision-making system (at central and local levels), case studies, focus group discussions, consultations with key and also international experts, research, workshops, including sub-regional round tables, in which, apart from the above mentioned, there participated representatives of international organizations, scientific institutions, higher educational establishments, NGOs and business (ANNEX 5).

Box 2

The concept of «Synergy" (from the Greek word sunegros –acting together) within the context of an analysis means the cumulative output of coordinated actions, made in various directions to achieve common goals, which exceeds the total value of the effect of those efforts if made independently from one another.

Concise Oxford Dictionary, 7th edition

Within the framework of the project a special survey was conducted (ANNEX 3), in Bishkek and also three pilot areas in Issyk-Kul, Chui and Jalalabat oblasts. Interviews with key persons (80 interviews), sample groups at local level (40 interviews), conducted focus groups (7 groups), 7 case studies based on the surveys.

The most qualified experts in the area of nature conservation and rational nature management, experts in the following areas: improvement of normative and legislative base, institutional capacity strengthening, improvement of the system of economic regulation, strengthening nature management infrastructure and technological supply improvement, ensuring control of the condition and management of natural resources and strengthening informational and educational capacity, were involved in the process.

The outputs of Phase I of the project[4] and methodological recommendations were used in the cross-cutting analysis [5 6 7].

[4] Global ecological conventions: capacities of Kyrgyzstan. Subject Review. - B. UNDP, 2004
[5] Manual on country self-assessment of capacity needs in carrying out activities aimed at conservation and rational global environmental management. Prepared in 2002 by the GEF Secretariat with the assistance of UNITAR in cooperation with UNDP, UNEP, World Bank, FAO, UNIDO, UNCBD, UNFCCC and the UNCCD Secretariat.
[6] UNDP Country Capacity Self-Assessment Project. Manual, developed in 2003 under the aegis of UNDP ans GEF.
[7] National Capacity Self-Assessments: A Resource Kit // UNDP, GEF, October 2004

2. REVIEW OF CONVENTIONS IMPLEMENTATION IN KYRGYZSTAN

Kyrgyzstan is a state in Central Asia with a population of about 5.1 million people (as of the data at the beginning of 2005.) covering an area of 0.199 million square km. The peculiarities of its nature and climatic conditions are determined by its considerable (more than 3 thousand km) remoteness from the world's oceans and the mountainous relief of the area with an altitude fluctuating between 350 and 7440 m above sea level[8]. These factors pre-determine the typical characteristics of the continental climate and general dryness typical of arid zones. At the same time relief characteristics of the country create conditions for the formation of various sub-regional climates – from excessive warmth and deficit of moisture in close-to the mountains valleys to excessive moisture and lack of warmth in high mountain areas and also various natural landscapes, water objects and flora and fauna habitats.

More than 94% of the landmass of the country is covered by mountain ranges at a height of more than 3.5 – 4 thousand meters above sea level covered with eternal glaciers and snow[9].

The country contains considerable reserves of land resources for further development based on extensive technologies. Cultural landscapes occupied by cities and other settlements, industrial objects, transportation communications, fields etc. do not exceed 7% of the total land fund[10].

In spite of its limited area, Kyrgyzstan enjoys a unique biological diversity. Though the country occupies only 0.13% of the total land area of the planet the republic has about 2% of the world's flora growing and more than 3% of the world's fauna inhabiting it[11]. Dozens of species of animals and plants are endemic, which means than you cannot meet them anywhere other than in the Republic.

Kyrgyzstan's natural and climatic conditions justify close interaction of the condition of land, water and biological resources. The most visible example of this is in the example of the reduction of forest cover in the water flow formation zone. Decreasing of density of forested areas, natural regulators of the surface water flow, prevents the accumulation of moisture reserves and promotes the intensification of mudflows, floods and other natural disasters. As a result the processes of water erosion of the soil intensify, which in turn inevitably leads to a change in the species composition and number of local biological communities depending on one another. The same applies to cases of interaction in valley natural eco systems (lakes, wetlands and others) and in particular in exploited for business purposes territories, where excessive anthropogenic pressure has radically deformed all the environmental components.

Results of the thematic review on the implementation of obligations separately for each of the 3 conventions of phase l of the project[12] demonstrate **that in Kyrgyzstan the symptoms of negative global processes connected with climate change, degradation of the land fund and reduced biological diversity, can be followed closely. These processes have an impact on land, water and biological resources, the rational management of which is not only a necessary condition for life support but also is an important factor in reducing unemployment and poverty and further growth of welfare enabling sustainable development of the entire country.** The mentioned circumstances require the application of a more complete inter-agency and inter-sector approach to the regulation, conservation and rational management of natural resources. With regard to this, Kyrgyzstan's joining the UNCBD, UNFCCC and UNCCD is a necessary measure completely meeting national interests and priorities.

[8] Kyrgyzstan: General assessment of the country's condition. – Bishkek 2001. – p. 135
[9] Water problems in Central Asia. - Bishkek, 2004. - p. 142
[10] National action plan for UNCBD implementation 2000.
[11] Draft of the Strategy and Action Plan for biodiversity conservation. – Bishkek, 1998. – p. 160
[12] Global Ecological Conventions: Kyrgyzstan's capacity. Thematic review – B.: UNDP, 2004

Box 3

…lack of an effective body for inter-agency nature conservation coordination evidently influences the sustainable functioning of a state structure for the sector governance. Numerous and not always justified reorganizations of governance bodies accompanied with termination and subsequent restoration hamper the formation of an institutionally sustainable base for the nature conservation sector and make it more complicated to conduct legal and other reforms.

Mr. Daniyar Usenov, acting Vice-Prime Minister of the Kyrgyz Republic Inception workshop of the Capacity Building and Environmental Governance Strengthening for Sustainable Development Project. (Bishkek, April 2005).

2.1. NATIONAL POLICY IN STATE PROGRAMMES

Kyrgyzstan is a member of the United Nations Commission on sustainable development and its regional institutions. The country has ratified 11 international nature conservation conventions, which include UNCBD, UNFCCC, and UNCCD. The state is involved in working with UNEP, UNDP, GEF, FAO and other international organizations, with the support of which the Regional Action Plan for Nature Conservation is being implemented and of Operational Programme 15[13] on sustainable land management and necessary activities for the Millennium Development Goals and Agenda of the XXI Century is being implemented.

With the support of international organizations the Comprehensive Development Framework of the Kyrgyz Republic till 2010 (CDF)[14] has been developed, in which the main nature conservation objectives are stipulated as priorities, which include:

- improving the national ecological policy;
- decreasing the level of anthropogenic impact on the environment;
- decreasing the level of land degradation;
- rational and effective use of water and energy resources and strengthening activities for the melioration of agricultural land;
- conserving and reproducing biodiversity.

Those priority actions were carried out within the frameworks of the National Poverty Reduction Strategy (NPRS) and introduced in:

– The Action Plan for nature conservation (1995);
– Concept for the ecological safety of Kyrgyzstan (1997);
– Strategy and Action Plan for Biodiversity conservation in the KR for 2002-2006;
– Forestry Sector Development Concept in the KR till 2025;
– Agrarian Policy Concept in the KR till 2010;
– State Programme for banning use of ozone damaging substances (ODS) for 2002 – 2005;
– State Public Health in Kyrgyzstan in the 21st Century Programme;
– State Environmental Hygiene Plan;
– State targeted programme for the development of the Hydrometeorology service in the KR for 1998-2000 and for the period till 2005;
– The Melioration Programme and so on.

[13] Operational GEF programmes. Operational programme 15 – Degradation of land: Sustainable Land Resources Management.
[14] Kyrgyz Republic: New perspectives. Comprehensive development framework till 2010. Bishkek, 2001, p. 175

Currently within the frameworks of the Environmental Protection component of the New Country Programme Action Plan for 2005-2010. Kyrgyzstan has started developing and introducing the principles of sustainable development into the National Poverty Reduction Strategy 2 (NPRS-2) and the National Strategy for Sustainable Development (NSSD), in which implementation of obligations under international conventions and agreements in the area of nature conservation will also play an important role.

Provisions of the above-mentioned plans and programmes in general meet national priorities and create the basis for implementing obligations under the three conventions but in addition appears reasonable to:

- clarify the content of national and agency development programmes with regard to the risks and threats justified by the tendencies of the change in the environment's condition, limited natural resources and the necessity for their rational management;
- make corrections in the National Action Plan to Combat Desertification and to grant this document the official status of a state development programme;
- consider an Initiative of Central Asian countries for land resources management as a regional basis for developing partnership, attracting donor assistance for the goals of combating desertification and the poverty of the rural population and enabling sustainable development till 2014;
- develop a new version of the Strategy and Action Plan for Biodiversity Conservation in the KR based on the previous version of the (SPABC) and a comprehensive inter-agency programme of actions;
- develop a consolidated programme document, integrating GEC objectives based on inter-agency and inter-sector cooperation;
- take into account this analysis in developing NPRS-2 and the NSSD.

Mr. Zharas Takenov, UNDP International Senior Officer, Environment Unit. NSCA Sub Regional Workshop for Central Asian Countries. (Bishkek, January 2005)

Box 4

«A careful attitude to natural resources is vitally important for the country not only from an ecological but also purely economic point of view. At the same time the relative break that was given to the environment in Kyrgyzstan as a result of reduced industrial production is not being used correctly

Kyrgyz Republic. Report on Implementation of the Millennium Development Goals. Bishkek, 2003 p.37

These circumstances make it necessary to reconsider and clarify the provisions of the programme documents with the focus on specific and mutual integration in implementing obligations under the three conventions.

2.2. IMPLEMENTATION OF OBLIGATIONS BY KYRGYZSTAN UNDER GLOBAL ENVIRONMENTAL CONVENTIONS

In accordance with the convention norms it is necessary to undertake activities in Kyrgyzstan to create coordinating structures at inter-state and national levels, adequate improvement of the legislative and institutional base of environmental activity and its financial support.

The United Nations Convention to Combat Desertification / Land Degradation. The main executing agency is the Ministry of Agriculture, Water Resources and Processing Industry of the KR. In 1999 the first National Forum on Convention implementation was held. A Coordination Council under the MAWRPI was created at the forum and a National Action Plan Concept to combat desertification was approved.

In 2000 with the support of the UNCBD Secretariat and the Government of Finland an NAP was prepared and adopted by the Coordination Council. As its priorities, it stipulated measures aimed at preventing the degradation of land, strengthening stakeholders' capacity, increasing public awareness and involving local communities in the process of combating desertification and creating favourable conditions for sustainable investments in this activity. A positive factor testifying to the start of the NAP implementation was financial support from the state budget for a scientific-research programme on monitoring desertification processes of irrigated land, but in general the volume of domestic investments for the prevention of desertification of land constitute an inconsiderable part of the real needs. As in the implementation of other conventions international assistance prevails. For instance: with donor assistance from the Government of Japan research was conducted to find out the social and economic consequences of land degradation and desertification. WB, ADB, IFAD, JICA and the EC have supported projects in the water and agricultural sectors in recent years. With GTZ support a programme to support non-governmental and public organizations in implementing pilot projects at local level is being implemented. In particular: the GEF/UNDP Small Grants Programme (SGP) stipulates measures to overcome land degradation within the GEF Operational programme on Sustainable Land Management. SDC and CAMP have initiated the introduction of progressive soil and water saving technologies at farm level. In 2005 with the support of CIDA, GM UNCBD and UNDP a new pilot Community pastures management in Temir ayil okmotu (Issyk-Kul oblast) Project has been implemented and conditions to conduct monitoring and assessment of the project's activity have been provided at national and regional levels. . Special attention is given to public awareness.

Box 5

Main objectives of the three global conventions

UNCCD - to combat 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, with a view to contributing to the achievement of sustainable development in affected areas.

UNCBD - 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, and by appropriate funding.

UNFCCC - 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 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.

In 2004 a Working Group Partnership (WGP-UNCBD), consisting of representatives of the Jogorku Kenesh, Presidential Administration, Centre for Agricultural Science and Consultative Services (CASCS), Ministries of Agriculture and Water Resources, Ecology and Emergencies, Finance, Foreign Affairs, State Forestry Service, State Registry, Kyrgyz Meteorology Service, RIOD NGO network and some international donor organizations, such as: UNDP. ADB, SDC and UNCBD Global mechanism was created in Kyrgyzstan.

Box 6

Convention is a good will of the country, the will to fulfil commitments before the world community and to input to the process of nature conservation…

NCSA Sociological Survey. Interview with the representative of Ministry of Finance of the KR

WGP-UNCBD functions within the framework of an agreement on Strategic Partnership in Central Asian countries, which was signed in Geneva in 2001. The main aim of the agreement is to support Central Asian countries in implanting UNCBD by partnership donor organizations. This Strategic Partnership supported an initiative of Central Asian countries for land resources management for 2005-2014 (ICACLRM) at the Forum for Partnership Development in Tashkent (June 2003), which is being implemented in Kyrgyzstan. The project was supported by GEF and the first stage of its implementation has started. Currently the countries are developing National Regional Programmes and establishing mechanisms for consultations and coordination of activities. The programme is targeted at taking coordinated measures aimed at sustainable land resources management in Central Asia to decrease the speed of land degradation and overcome the problems of poverty in the population.

Due to the fact that local communities are the main implementers of UNCCD amendments were made to the existing legislation of the Republic to promote the active involvement of representatives of farms and peasant farms and their public associations (water users associations, community forestry management structures and others) for UNCCD. With the support of GEF/UNDP in March 2005 a pilot project on public pastures management in the Susamyr Valley was launched. Within the framework of the project efforts will be made to overcome barriers and involve local communities and their organizations in effective pastures management. The project will enhance the restoration and creation of pastures infrastructure and introduce market mechanisms into the activity of local communities.

United Nations Convention on Biodiversity. The main executive agency is the State Forestry Service of the KR. In 1998 a Strategy for Biodiversity Conservation in the KR was developed with financial support of the World Bank and GEF, which was only signed as an official document in 2002 in a shortened version and it does not stipulate addressing all the problems in this area. In spite of the fact that an Action Plan (AP) aimed at biodiversity conservation in the KR for 2002-2006 has been adopted and drafts of a Strategy and AP for Biodiversity conservation, many issues primarily connected with enabling inter-sector cooperation still remain unresolved.

A considerable part of the activities continues to be supported by international organizations. For instance: The Central Asian trans-boundary project for biodiversity conservation of the Western Tian-Sham, which is financed by the World Bank and the Global Ecological Fund and the Kyrgyz-Swiss LESIC Programme are successful international projects. Within the frameworks of the latter a Forestry Code and the National Les Programme for 2001-2005 and the Forestry sector development in Kyrgyzstan till 2025 Concept have been developed. With the help of the German society for Technical Cooperation (GTZ) the Issyk-Kul biosphere has been established within the framework of implementing the national policy for enlarging specially protected nature reserves (SPNR) by establishing new reserves, preserves and national parks. Since 1999 the joint Kyrgyz-German Snow leopard Project, which is taking measures to save the snow leopard and its food base.

In 1999 a law On Biospheres in the Kyrgyz Republic was adopted. In 2001 the Issyk-Kul Biosphere was included in the World network of bio reserves of the UNESCO Man and biosphere Programme. Since 2001 the UNDP/GEF Small Grants Programme (SGP) has supported 89 projects of NGO and local communities.

In spite of some successfully implemented international projects aimed at biodiversity conservation in Kyrgyzstan their activity has not really been coordinated up to now. There are no innovative, creative instruments, such as public agreement on wild life conservation in Russia, expressing the consent of all structures and sectors of the need, goals and procedures of biodiversity conservation in the country for implementing national biodiversity plans. This model of coordination and integration of efforts could be quite acceptable to Kyrgyzstan.

United Nations Framework Convention on Climate Change. The main executive agency is the Ministry of Ecology and Emergencies of the KR. In order to implement the obligations under the UNFCCC the Government of the KR adopted a Resolution On Measures to implement the United Nations Framework Convention on Climate Change. In accordance with this document the Ministry of Ecology and Emergencies of the KR together with the National Statistics Committee of the KR was authorized to carry out state statistical reporting about greenhouse gas emissions in the KR.

Box 7

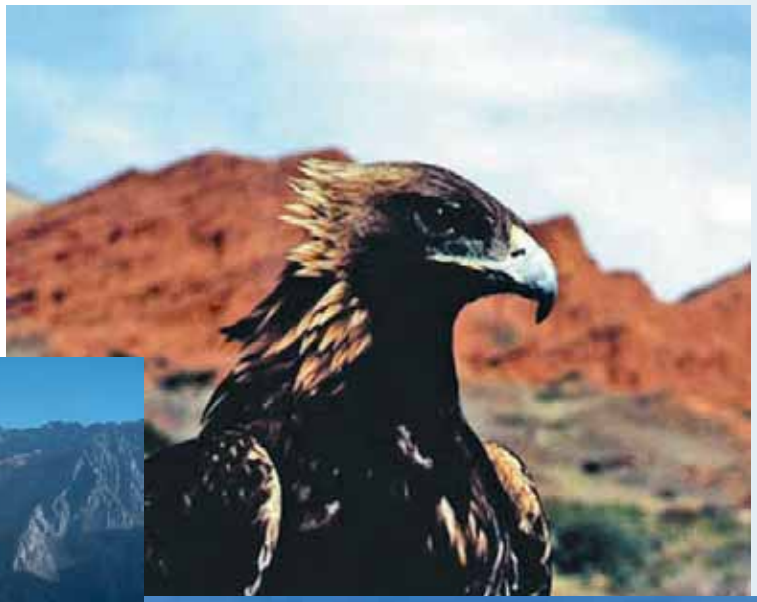
In order to guide and coordinate activities aimed at implementing the international obligations of the KR under the United Nations Framework Convention on Climate Change and the Kyoto Protocol I decree:
…to establish the National Committee on the consequences of climate change, authorizing it with the functions of a national body for mechanisms of pure development …

The Decree of the acting President of the Kyrgyz Republic K.Bakiev
July 18th 2005
УП № 281

Activities aimed at implementing obligations under the UNFCCC are stipulated in the First National Statement of the Kyrgyz Republic on Climate Change (2003). In the course of preparing this document a methodology was developed and for the first time in the Republic an inventory was drawn up of greenhouse gases' sources. Kyrgyzstan's ratification of the Kyoto Protocol in 2003 visibly enhanced the activity aimed at implementing projects within the frameworks of the pure development concept in the country. For instance: on August 6th 2005 the Government of the KR adopted a Resolution on the draft law of the KR On Ratification of the Memorandum of Understanding between the Government of the KR and the Government of the Kingdom of Denmark on cooperation in implementing the Kyoto Protocol and the United Nations Framework Convention on Climate Change, signed in Bishkek on March 9th 2005.

Currently Kyrgyzstan has started preparing the Second national statement on implementing the obligations under the UNFCCC, but the measures aimed at implementing the UNFCCC provisions have not yet been adequately developed. First of all due to the fact that the problem of having a law on the emission of greenhouse gases has not been identified as a priority one for the country and also due to the imbalance of legislative, administrative and economic mechanisms to achieve the UNFCCC goals. Neither a national strategy nor AP has been developed in the country to prevent the economic, social, ecological and other negative consequences of climate change.

The provided data testifies to the fact that the main activity aimed at implementing the conventions in the country up to now has been carried out mostly through the efforts of three state executive agencies within the frameworks of the projects implemented with the support of international organizations. It is clear that the state governance bodies must make a regulatory and executive mechanism base to implement the obligations under the conventions. At the same time, for the successful implementation of those obligations it is necessary to enhance the activities of other participants as well, primarily of representatives of state bodies at all levels, local governments, non-governmental organizations, academic circles and private business.



3. CROSS-SECTORAL INTERACTION AND FACTORS RESTRAINING CAPACITY DEVELOPMENT

3.1. LEGAL FRAMEWORK FOR THE IMPLEMENTATION OF OBLIGATIONS UNDER THE THREE CONVENTIONS

Mr. Kambaraly Kongantiev, Inception workshop of the Capacity Building and Environmental Governance Strengthening for Sustainable Development Project. (Bishkek, April 2005).

The basis for the implementation of the three conventions is the national legislation, particularly Article 3 of the Constitution of the Kyrgyz Republic, which states that the "citizens of the Kyrgyz Republic shall have the right to an environment favourable for life and health". The Ministry of Justice is entrusted with the functions of centralized supervision over the conformity of by-laws with the constitutional and legal norms. Annex 2 includes a list of the main in-force legislation of the Kyrgyz Republic, which regulates the conditions for the use of natural resources and environmental protection. The legislation's content indicates that Kyrgyzstan has developed a legal framework to carry out activities related to the use and protection of natural resources. These norms have a direct impact on the enforcement of national actions related to the implementation of obligations under the GEC.

Alongside that some norms of the legislation partially reflect the traditions of a centralized command economy and public work. Having been developed during the first years of Kyrgyzstan's independence this legislation makes no account of market economy mechanisms and the requirements of international standards in implementing obligations under the three conventions. As a result, the current environmental and other legislation raises the following issues:

- Many duplications and sometimes, contradicting acts issued based on different principles of law and a great number of regulations and gaps;
- Distortions and, sometimes, mutual exclusion of forms of the statute at a lower level;
- Many laws (draft laws) contain intra-institutional, narrow sectoral or corporative interests, which directly contradict government policy;
- Many cross references between various laws, which mislead investors;
- Decentralization principles in the environmental area and the delegation of some authorities of governmental agencies to local governments are not sufficiently regulated;
- Inefficient information dissemination procedures and mechanisms for the participation of the public, NGOs and private sector in decision making in the field of environmental protection;
- Lack of balanced mechanisms for regulating price, tariff and tax policy to facilitate the introduction of resource saving technologies and to toughen economic sanctions against legal entities and individuals for irrational use of natural resources and deterioration of the state of the environment;
- Clear mechanisms for transferring land to the fund of specially protected natural areas are not defined;

Ms. Sezin Sinanoglu, Deputy Resident Representative (UNDP-Kyrgyzstan) among participants of the Round Table on Discussion of Strategic Action Plan for Capacity Building in Implementing 3 Conventions. (Bishkek, July 2005)

- The norms of legal responsibility of owners and farmers of land from the land fund and agencies regulating the use of watercourses and the norms for damaging the land and biodiversity in the corresponding areas are not defined specifically enough.

The above weaknesses in the legislative framework of Kyrgyzstan are to a certain degree explained by the country's procedures for developing and adopting legislation. As a rule the draft laws are prepared by republican-level ministries and agencies, which are the most interested in their adoption, and often taking into account their own (corporative) interests. Therefore, some statutes in the area of environmental protection that assign functions and powers to certain administrative bodies often do not have sufficient financial, organizational and technological support, and, as a rule, do not provide for certain mechanisms of interaction with other interested parties.

The framework nature of the majority of legislative acts leads to the necessity of drafting detailed procedures and implementing mechanisms in the form of regulations, instructions, methodological guidelines, technical standards etc. The structure of such documents is not streamlined; the content of the substantial number of normative standards is inadequate and even contradicts the existing legislation. They, in particular, do not stipulate mechanisms and procedures for implementing obligations undertaken under the three conventions:

- There are no defined mechanisms for recording and controlling greenhouse gas emissions or unified methodologies for identifying the composition and levels of greenhouse gases;
- There are no provisions regulating the procedure for assessing the adverse effects of norms on the flora and fauna;
- Outdated norms that do not correspond to international standards of the maximum allowable concentration of pollutants in different types of natural water objects;
- Absence of regulatory mechanisms for the use of genetically modified biological materials;
- Absence of legal provisions and regulatory mechanisms for the use of biotechnologies, for instance, norms of the content of genetically modified food supplements, etc.

Therefore, the analysis of the legislative framework demonstrates that a significant step has been made by the country towards the creation of a legislative framework in order to implement the obligations under the three conventions. However, the existing procedures for state and departmental control and provisions of quasi-legal acts are not used efficiently in practice. Inspection procedures set out in these documents are excessively centralized and do not allow the participation of

Box 8

Inspections are often of a punitive nature or have long ago turned into illegal sources of enrichment for inspectors. The level of "bribability" related to inspections and their frequency in Kyrgyzstan is one of the highest in CIS countries (Business Environment and Enterprise Performance Survey, 2002-2003).

The procedure of inspections is regulated by "sectoral" laws and regulations. There is no common and clear regulation of the scope, terms, and frequency of inspections. There is no clearly defined liability for controlling and regulatory bodies and government officials. Inspecting bodies demand payment for performing their supervisory responsibility that should be paid by the State. Contradictions and unclear provisions the legislation are especially used against economic entities. Thus, the presumption of fair play is to be introduced into the legislation, rights of inspecting bodies and their accountability to the public are to be determined, and accessibility of the results of inspections are to be ensured. All this relates to the licensing and permit system. There are certain types of activities that are subject to obtaining a permit, although the existing Law On Licensing does not stipulate licensing the above-mentioned activities. The Law itself has many contradictions: first of all, the Law does not provide for clear established grounds for the refusal or issuance of a license. This situation creates another "space" for corruption and violations.

Kyrgyzstan at the new development stage. UNDP Kyrgyzstan, Bishkek 2005, p.29

local self-government bodies and representatives of the public in these processes. The current legislation is not oriented to intra-departmental and intra-sectoral interaction, thus, it is deemed to be expedient to introduce certain changes and additions to the relevant normative and legislative acts taking into consideration the international obligations of the country.

MAIN LEGISLATIVE ISSUES:

- Contradictory and incomprehensible provisions of the existing quasi-legal acts, instructions, methodological guidelines and technical regulations that regulate ecological activity and the norms of nature protection and their lack of accordance with modern requirements;
- Lack of ideological and programme documents establishing the priorities of the national policy of interacting with international organizations, donor countries, and other foreign partners in the area of environmental activity;
- Excessive declaratory nature of a number of environmental programme documents and action plans developed earlier at national, ministerial and local levels, without due justification of organizational, financial, logistical and resource support;
- Inefficient implementation of state control mechanisms and lack of mechanisms for public control over the observance of the existing legislation.

RECOMMENDED ACTIONS:

- Correct the republican, departmental and regional development programmes with the aim of ensuring inter-sectoral interaction during the implementation of obligations of the Kyrgyz Republic under UNCBD, CCD and FCCC, as integral elements of the concept of sustainable social and economic development of the country;
- Introduce additions and changes into the block of national environmental laws, considering the requirements set forth in the Law of the Kyrgyz Republic On Normative and Legislative Acts", requirements of GEC and detailed procedures and mechanisms for the implementation of environmental safety norms, environmental accreditation and certification requirements;
- Review the existing environment-related programme documents, i.e. development of detailed short-term and medium-term measures based on synergies;
- Review and introduce amendments of quasi-legal acts, standards, official methodological documents, organizational instructions and other documents in order to eliminate contradictory and duplicating provisions, adapt to the national legislation, international law norms and international standards, modern technologies of management and rational use of natural resources;
- Develop technical environmental safety regulations;
- Develop state policy and mechanisms for efficient interaction with international organizations, donor countries and business partners in the area of environmental activity and rational nature use.

3.2. INSTITUTIONAL CAPACITY AND COORDINATION ENHANCEMENT

The institutional level of capacity building means increasing the overall efficiency of an organization and its functional possibilities, as well as its capacity to adapt to future challenges. The major condition for institutional capacity building is developing an institution as a coherent system (its major employees and groups, their interaction with the external (out-of-organization) world), as well as developing clearly formulated tasks, obligations and responsibilities, changes in procedures and contacts review and efficient use of human resources.

The following are indicators of efforts at institutional level in Kyrgyzstan:

- statutorily appointed special executive agency responsible for implementing each Convention;
- statutorily defined obligations;
- generated capacity of the three major agencies implementing the obligations;
- availability of certain procedures (mechanisms) of inter-departmental and inter-sectoral interaction in implementing obligations under the three conventions.

During the evaluation of the given structure, results of the functional analysis of a number of ministries, undertaken within the framework of the UNDP State Administration Reform (2003-2004) Project, as well as the regulation of ministries and agencies of the country, have been taken into account.

Box 9

"The European Economic Commission of the United Nations studied the environmental situation in Kyrgyzstan and came to the conclusion that a system of executive bodies responsible for environmental protection and regulation of the issues of natural resources' use has been established in the country. The decision made with respect to the system of administration of environmental protection is adequate"

European Economic Commission, UN, Committee on Environmental Policy: Analysis of the Environment in Kyrgyzstan, Geneva, 2000.

Ministry of Ecology and Emergencies of the Kyrgyz Republic (MEE) has coordinating regulatory and controlling functions on the implementation of the national environmental policy.

The major tasks of the environmental function of the MEE are as follows: organizing environmental safety by performing state control over the implementation of the environmental legislation, conducting state environmental examinations, establishing norms for emissions, discharges and disposal of waste, developing normative and legislative acts regulating environmental protection activity, carrying out environmental monitoring, etc. The environmental functions of the MoEE are funded by the national budget and special funds received from payments for nature use.

Main Hydrometeorology Department (Kyrgyzhydromet) is included within the composition of the MEE and monitors the condition of the environment, including indicators of air pollution, qualitative and quantitative parameters of water resources reserves, control over the emissions of greenhouse gases etc. Performance of these functions is very limited due to insufficient funding, degradation of the monitoring network and physical and moral depreciation of the measuring and technical equipment.

Ministry of Agriculture, Water Resources and Processing Industry of the Kyrgyz Republic (MAWRPI) performs executive and coordinating functions in the area of agriculture, water and fish economy, processing industry, small and medium agribusiness, as well as coordination of the activity of regional agricultural administration bodies and economic entities operating in the above-mentioned areas. These functions are related to the regulation of the use of water and agricultural land funds. That stipulates liability for evaluating the vulnerability of water resources to climate changes (in the context of FCCC), for developing a development strategy for agro-industrial complexes that have a direct influence on national food security and alleviating poverty in rural areas (in the context of CCD), and for the use of

The main stakeholders of Kyrgyzstan, responcible for implementation the commitments of the global enviromental conventions: MEE, MAWRPI, State Forestry Survise

fish stocks, which contribute to the preservation of biodiversity (in the context of CBD).

The New Water Code of the Kyrgyz Republic adopted in 2005 provides for the separation of structural sub-divisions regulating water activities and managing water resources from the structure of the MAWRPI. However, as of the date of writing this present report, these reform measures have not been implemented in full.

State Forestry Service of the Kyrgyz Republic regulates activity in the area of protection, use and reproduction of flora and fauna, forests, biodiversity preservation and the development of a network of specially protected natural areas. This defines its role in fulfilling obligations under the three conventions as a body regulating the use of bio-resources and preservation of biodiversity (CBD), responsible for the preservation, restoration and expansion of forests, absorbing greenhouse gases (FCCC) and preventing degradation of soils due to wind and water erosion (CCD).

Issues of organizing and implementing state control over the protection and rational use of biological resources, control over the observance of environmental legislation, hunting, sport and amateur hunting, including trophy hunting, the fur trade, shooting and capturing wild animals for scientific, cultural, economic and other purposes, observances of rules, terms and ways of hunting, as well as over the procurement of medical and technical raw materials are entrusted to the recently established Department for the Preservation of Biodiversity and Regulation of Bio-Resources under the State Forestry Service of the Kyrgyz Republic.

National Academy of Science of the Kyrgyz Republic develops the scientific basis for monitoring biodiversity, justification of areas, terms and norms of the permitted capture of commercial species, medicinal herbs and forest reserves based on the Biological and Soil Institute, Botanic Garden and Institute of Forest and Walnut Planting.

Ministry of Economic Development, Industry and Trade of the Kyrgyz Republic whose powers have recently been expanded within the framework of reorganizing the Government, can play an important role in implementing actions related to the issues of climate change, disruption of biodiversity and the issue of desertification. The Ministry develops and implements state policy in the area of economic and social development, foreign economic activity, industry and trade, state supervision over the observance of technical regulations' requirements, entrepreneurship, formation of the investment environment and attraction of investments, anti-monopoly policy and development of competitive relations and the improvement of methods of corporate management. However, this Ministry was not included in the process of implementing obligations under the conventions.

Ministry of Transport and Communications of the Kyrgyz Republic regulates road, rail, water and air transport systems and the communications and information development infrastructure. The Ministry pursues a general policy in the area of the functioning and development of road, railroad, electrical, air and water transport, vehicular roads, railroads, communications and IT. The current status and further development of the transport sector has a direct impact on the level of emissions of greenhouse gases (FCCC) and disruption of biodiversity (CBD). This Ministry is not fully engaged in implementing the obligations under the conventions.

Ministry of Health of the Kyrgyz Republic implements state policy in the area of health protection of the population. Alongside other functions, the Ministry is responsible for supervising radioactive, toxic and chemical wastes that influence the living conditions of the population. Efforts of the Ministry are mainly aimed at overcoming the most urgent problems related to the population's health, i.e. preventing epidemics, reducing infant mortality and others. This restricts the possibilities of central and local structures of the Ministry of Health Care from performing large-scale research into the impact of the environmental situation on the nation's health (in the context of CBD and CCD), as well as preventive measures to adapt the population to unfavourable climate changes (in the context of FCCC).

Ministry of Education of the Kyrgyz Republic performs executive functions in the area of state educational policy. The ministry performs state control over the quality of education, and ensures the constitutional rights of citizens to education, including ecological. This implies the development of activity on disseminating information to the public and students of secondary and higher educational institutions about the problems of climate change, preservation of bio diversity and desertification (FCCC, CBD, CCD). However, the major informational and educational activities in the area of environmental education are being implemented in Kyrgyzstan predominantly within the framework of implementing international projects with limited participation by state educational bodies at central and local levels.

State Committee of the Kyrgyz Republic on Tourism, Sport and Youth Policy is responsible for creating favourable conditions for investment into the tourism industry, developing viable investment projects, training and raising the expertise of personnel for the tourism industry, physical culture and sports and developing national standards in tourism. One of the most important regulatory functions of the Committee is to solve the objective contradictions between national environmental programmes and the development of the tourism infrastructure because tourism is seen as having some of the best prospects in the national economy. This contradiction is conditioned by the fact that the development of mass tourism in the country is possible if its unique landscapes, natural monuments, habitats of endemic types of flora and fauna etc., are preserved, whereas creating a comfortable tourism infrastructure, i.e. communications, hotels, public catering and utilities, may lead to degradation and even to elimination of the most remarkable natural objects that represent the national wealth. In this respect the capacity of the agency could implement a balanced strategy that stipulates the compulsory preservation of the environment considering the provisions of the GEC.

Functions of the ***State Energy Agency under the Government of the Kyrgyz Republic*** that is the regulatory body of the fuel and energy sector, include the implementation of the following tasks:

- normative and legislative regulation and regulation of tariff policy;
- licensing and control over the activity of fuel and energy complex (FEC) entities, hydro and electric energy, oil processing, natural gas use, etc.;
- implementation of energy saving policy and increasing the efficiency of energy use in the FEC;
- implementation of the policy aimed at developing renewable and environmentally harmless sources of energy;
- attracting investments into the FEC.

These responsibilities of the Agency condition its future role in enhancing capacity to reduce greenhouse gases emissions by enterprises of the heating energy sector in the context of the FCCC. However, at

present the activity of the Agency is mainly concentrated on the issues of regulating energy tariff policy. The limited administrative capacity of the Agency does not allow it to efficiently develop environmental aspects of its statutory activity.

National Statistics Committee of the Kyrgyz Republic ensures state statistical reporting on all types of social, economic and other activities, including reporting on the indicators of the status and use of natural resources and emissions of pollutants into the environment, thus, directly participating in the formation of the national information basis for fulfilling obligations under the GEC. The limited logistical and labour resources of the National Statistics Committee do not allow it to carry out full-scale modernization of the system of state statistical reporting using advanced technologies for collecting, processing and disseminating the most up to date information, including environmental, among interested clients.

Representatives of Ministries and Departments at the Round Table on Discussion of Cross-cutting analisys results. (Bishkek, July 2005)

National Institute of Standards and Metrology of the Kyrgyz Republic is the non-commercial state institution on standardization, metrology and accreditation. The Institute develops and approves, within its competence, national documents on standardization, including on the basis of international (regional) standards, procedures for the official recognition of technical competence of testing and calibrating laboratories and other functions in the area of standardization and metrological aspects of environmental activity. Due to the absence of efficient inter-departmental contacts and interest, the Institute is not fully engaged in the implementation of its obligations under the three Conventions.

State Agency for the Registration of Rights to Immovable Property under the Government of the Kyrgyz Republic is the state body responsible for coordination and control over the functioning of the common state system of regulating land relations, monitoring land and registration of rights to immovable property. The body implements policy in the area of registration of rights to immovable property, regulation of land relations and developing an immovable property market. The Inspectorate for State Control over the Use and Protection of Land under the State Agency of the Kyrgyz Republic, performs control over the targeted use of allocated land plots by natural and legal entities, over the legality of land allocation and compensation for losses of agricultural and forestry production. The Kyrgyzgiprozem Institute jointly with the Republican Soil and Agro-Chemical Station carries out geo-botanic and soil surveys, monitoring of soil and natural forage land (pastures and hay-meadows), inventory of all land, assessment of agricultural land and organizing the areas of economic entities. Pursuant to the Regulation On Land Cadastre of the Kyrgyz Republic, the inventory of land cadastre should be carried out based on a combination of exploration surveys, soil, geo-botanic, zoological and other studies. From 1999-2004 these activities were carried out in the country on a very limited scale, so there are no comprehensive and accurate records of the qualitative characteristics of the land fund, which, in turn, constrains the development of capacity under CBD and CCD.

Besides the enumerated state bodies the following state bodies are also involved in implementing national environmental policy that includes implementing the obligations under the GEC: ***Ministry of Justice of the Kyrgyz Republic*** (coordination and state supervision over the legal framework

of environmental activity), ***Ministry of Internal Affairs of the Kyrgyz Republic*** (The State Road Inspectorate operates within the structure of the Ministry. It is responsible for controlling the technical condition of vehicles), ***Ministry of Foreign Affairs of the Kyrgyz Republic*** (regulation of inter-state environmental protection relations). The ***Ministry of Finance of the Kyrgyz Republic*** is perhaps the only ministry in the Government that implements inter-departmental interaction according to its tasks and specificity. The Ministry participates directly in developing all programmes and strategies whose implementation requires financial support yet the Ministry is not a 'sectoral' body. This is a unique state body, whose activity is based on inter-departmental and inter-sectoral interaction. One of the successful activities of the Ministry is its approach to the budgeting of ministries and agencies (only 4 Ministries participate in this process) and the development of resource agreements that allow the maneuvering of budget funds of the ministries, to efficiently respond to financial difficulties and effectively use special funds. Unfortunately, these innovational projects of the Ministry do not include activities related to environmental protection.

Office of the Government of the Kyrgyz Republic is responsible for the effective coordination of interaction between the Republican ministries and agencies, including in the area of environmental policy. Taking into account the importance of strengthening local self-governance bodies in rural areas, a local self-governance and agrarian policy unit has been established in the office of the President of the Kyrgyz Republic.

Discussion of possibilities of main actions integrations in implementing 3 conventions to the State Strategies and Programmes.

By virtue of Article 94 of the Constitution of the Kyrgyz Republic that provides for the expansion of powers of local self-governance bodies and pursuant to the Law On Local Self-governance and Local State Administration in the Kyrgyz Republic a number of Republican ministries and agencies delegated some of their powers to local state administration bodies in 1998. As a result, village, rayon and oblast keneshes have the following powers:

- rational use of land of local communities;
- systematic social and economic development of areas of local communities and their associations;
- managing housing and communal services and organizing public services and amenities;
- environmental protection.

In accordance with the Decree of the President of the Kyrgyz Republic dated March 20th 1996 local self-governance bodies (ayil-okmotu) in rural and village keneshes were created. Ayil-okmotu were entrusted with the following functions:

- controlling the use of agricultural land, introducing proposals to relevant bodies about the seizure of irrationally and illegally used land plots and creating a special land fund for the local community;
- holding tenders for leasing land plots among natural and legal entities;
- controlling the activity of enterprises, institutions and other economic entities in the observance of legislation on environmental protection, land and natural resource use, sanitary norms and rules and conducting environmental activities;
- mobilizing and organizing measures necessary to prevent disasters and emergencies and clearing up their consequences.

Given the above it can be said that the basis of an institutional structure for implementing objectives on the **rational use of natural resources and environmental protection has been formed in Kyrgyzstan.**

Stakeholders are discussing the materials of cross-cutting analisys

The Government of Kyrgyzstan **has made certain state bodies responsible for coordinating activities and implementing obligations under GEC, namely: The State Forestry Service is authorized to implement CBD obligations, MEE jointly with the National Statistical Committee bear similar responsibility under the FCCC, whereas the MAWRPI is responsible for implementing obligations under the CCD.**

Recently the practice of interaction among state bodies of different levels on implementing obligations under conventions has been generated, for instance:

- A partnership working has been set up under the MAWRPI in order to coordinate activity on implementing the obligations under the CCD (WGP CCD), consisting of representatives of the MEE, State Register, State Forestry Service, Ministry of Finance and the Jogorku Kenesh, as well as scientific, non-commercial organizations and donor agencies;
- A Commission on Implementing the Biodiversity Preservation Strategy has been set up;
- An Inter-departmental Working Group has been set up at the State Register with representatives from the Centre for Agrarian and Land Reform of the MAWRPI and regional centres of the immovable property and oblast administration bodies for the joint development of criteria for determining the optimum size of agricultural land plots;
- An International Cooperation Unit has been set up at the State Forestry Service that coordinates, jointly with the Ministry of Foreign Affairs of the Kyrgyz Republic and the CBD Secretariat, the activity of international projects related to the development of the forest fund and biodiversity preservation;
- An Inter-departmental Commission and Working Group, including representatives from the Ministry of Finance, MEE, MFA, State Property Committee and the National Bank of the Kyrgyz Republic has been set up, for the joint study of legal issues and foreign experience related to the issues of restructuring the external debt of Kyrgyzstan.

Principles of the Rio Declaration[15] state that, "participation of the public is a necessary condition for solving environmental problems as it is the public themselves that can ensure the checks and balances mechanism of the authorities and business in using natural resources and changes in the area of natural eco-systems".

[15] Declaration of the World Summit on Sustainable Development, Rio De Janeiro, 1992

The efficiency of this principle in Kyrgyzstan may be illustrated as follows:

Box 10

According to Resolution # 694 of the Government of the Kyrgyz Republic dated November 4th 2003 On the Transfer of Chatyr-Kul Lake into the Category of Centrally Administered Fisheries, Chatyr-Kul Lake was transferred from the fund of specially protected natural areas to the category of centrally administered fisheries in violation of the existing legislation.

The Independent Environmental Examination public association initiated the repeal of this Resolution of the Government of the Kyrgyz Republic. The association developed a memorandum about the public environmental assessment of the Resolution on February 2nd 2004. The next day (February 3rd 2004) the memorandum and letter requesting the repeal of the given Resolution was sent to the Prime Minister. The documents in particular indicated that the Resolution failed the environmental assessment and contradicts the international obligations of the Kyrgyz Republic. The Public Association recommends restoring the previous status of Chatyr-Kul Lake. Many representatives of environmental NGOs of the Kyrgyz Republic and other Central Asian countries signed the letter. Wide-scale protests by representatives of environmental NGOs, scientists, mass media and other stakeholders helped to change the situation.

As a result,

A RESOLUTION OF THE GOVERNMENT OF THE KYRGYZ REPUBLIC # 310 dated July 25th 2005 was adopted that repealed Resolution # 694 of the Government of the Kyrgyz Republic dated November 4th 2003, On Transferring Chatyr-Kul Lake into the Category of Centrally Administered Fisheries and recommended the State Forestry Service of the Kyrgyz Republic file an application to include the lake in the list of international wetlands under the established procedure.

The given example demonstrates the positive experience of inter-sectoral interaction between professional NGOs, scientific circles and representatives of ministries and agencies.

Sociological Survey conducted within the project identified a broad specter of opinions among participants of the conventions' implementation process concerning their functions and duties. Interviews prove that existing and potential stakeholders including decision making officials and their motivations prevails the state interest priorities. The survey demonstrated that environment protection issues are not priority in the state policy. There are also a lack of normative documents and procedures that promote partnership, cross-sectoral interaction contributing the integration of process participants' activity.

Representatives of State Institutions and NGO's in the process of discussion aproaches to improve cross-sectoral interactions

Despite this positive experience, a pilot study within the framework of the project identified a wide spectrum of opinions among participants in the process of implementing the Convention with respect to their functions and powers, and prospects for the development of environmental activity in Kyrgyzstan as a whole. Results of the surveys demonstrate that among current and potential stakeholders, including state officials making policy decisions, personal or departmental motivation often prevails over the priorities of state interests. The survey showed that the issues of environmental protection do not have priority in state policy. There are no normative documents

Box 11

"Today there is a Minister and I have good contacts with him. That means I will work. Tomorrow this minister will be gone and a new minister will come. After that, everything will change starting from the accounts department and technical personnel. Today civil servants do not have any guarantees in their jobs. If I only had a guarantee that I could work for the next 5 years… The same situation applies to ministers: today they are here and tomorrow they are gone. Therefore, they are not interested in making a contribution to anything, and sometimes they even start stealing".

NCSA Sociological Survey

and procedures that would promote partnership and condition benefits of inter-sectoral interaction that would, in their turn, stimulate integration of the activity of all participants in the process.

The institutional capacity of state bodies, directly responsible for implementing obligations under the convention, is not efficiently linked with the capacity of local self-governance bodies, NGOs, representatives of the private sector and other important stakeholders. There is no optimum management structure that would correlate the competing interests of various agencies and efficiently organize the exercising of the rights, powers and responsibilities of each agency. There are also no normative documents and procedures that would promote social partnership and benefits from interaction. Social stereotypes, lack of knowledge of capacity between stakeholders, poor information exchange and the "isolation" of agencies dominate in their relationship. Lack of trust in each other among representatives of sectors does not permit the use of mechanisms for unifying better experience and sharing resources (material, intellectual and organizational). The specificity of the goals and objectives of each state institution when implementing the obligations of the conventions depends primarily on the availability/absence of the statutorily defined status of a key institutional agency. The latter are three agencies: State Forestry Service, MAWRPI, and MEE. The conducted surveys confirmed that they are the major executors, the most involved state bodies in implementing the three conventions. Moreover, there are no provisions that would regulate the activity of other state bodies. This makes it extremely difficult and sometimes impedes the integration of their activities into one institutional whole and involving other executors in implementing obligations.

Box 12

"…There are so called departmental priorities or lucrative narrow departmental interests related to "possible investments or grant assistance", i.e. to the right to own, control or regulate grant funds. As soon as these means or sources of finance are finished, the whole activity finishes too."

NCSA Sociological Survey

Results of the analysis clearly showed that involving the public and representatives of the private sector and scientific circles will significantly help the state bodies to promote environmental protection reforms and increase the contribution of the state in fulfilling its obligations under the conventions and agreements. Only due to efficient interaction between ministries and agencies, the participation of NGOs and support of donor organizations, many state environmental protection and sustainable development programmes have been developed, environmental assessments of draft laws regulating the economic activity of businesses have been efficiently carried out, principles of the conventions have been introduced into the national legislation and some resolutions of the Government have been challenged.

One of the results of inter-sectoral interaction is the activity of professional NGOs, as well as the relationship between representatives of ministries and agencies and civil society and their existing information and specialized networks both at national and regional levels.

Effective interaction between relevant projects is an important component that strengthening coordination

With respect to local self-governqnce bodies, some experts refer to them as civil society. In reality, they are state bodies and subject to pressure from above considering that the statutory determination of their powers, division of functions, financial sources etc. have not yet been completed. It should be noted that during the sociological survey respondents considered local self-governance bodies to be efficient social partnership bodies and a real tool in the future

The existing inter-sectoral and inter-departmental interaction requires enhanced capacity at institutional level, both in the area of strategic planning in general and in monitoring and evaluating serious changes and adapting to the objectives of the conventions. It is necessary to develop the legislative framework and procedures regulating social partnership and more efficient interaction and overcome the widespread stereotype that the solution of environmental issues is the responsibility of exclusively specialized institutions and agencies. It is necessary to integrate the objectives of the conventions into regional policy, as well as to include representatives of local communities into strategic planning and forecasting activities through the CDF, NPRS and other strategies. It is necessary to expand the interaction of scientific and technical experts with policy makers and support their capacity and innovations and technologies having significance for the country.

After the events that took place in Kyrgyzstan on March 24th 2005 deficiencies in the existing institutional system as a whole have become the subject of debate and critique both among the public and the new political elite of the country. As a result, the need to conduct institutional reform has been declared. The reform will affect state bodies at all levels that participate in implementing obligations under the GEC. However, during the completion of the NCSA Project the results of these reforms have not yet been achieved.

MAIN PROBLEMS OF INSTITUTIONAL CAPACITY DEVELOPMENT

- Absence of efficient mechanisms for coordinating the interaction of state bodies, nature use entities and sectors of civil society when implementing this activity;
- Imperfect regulatory procedures due to the unclear division of functions and powers between Republican and local state bodies, insufficient measures aimed at decentralizing the decision-making process;
- Insufficient development and inefficient implementation of mechanisms of legal, administrative and economic responsibility of state bodies at all levels and nature use entities for implementing environmental protection norms;
- Excessive dominance of decisions aimed at eliminating negative impacts on natural resources and ecosystems as a whole within the system of administrative regulation compared to preventive measures;
- Unstable human resources policy and, as a consequence, poor qualification level of human resources of state bodies and nature use entities that participate in the processes of planning, decision-making and implementation of environmental protection decisions;
- Lack of activity of local self-government bodies when implementing assigned environmental protection functions;
- Extremely low involvement of scientific organizations, NGOs, entities of independent entrepreneurship and local communities in the processes of planning, discussion and implementation of decisions regarding the range of environmental problems related to obligations under the GEC;
- Strong impact of motivation related to individual or departmental interests on the results of the planning and adoption of principal decisions in the areas of nature use and environmental protection.

RECOMMENDED ACTIONS:

- Create an efficient centralized mechanism of decision-making and coordination of the interaction of state bodies at all levels, nature use entities, NGOs and local communities related to the rational use of natural resources and environmental protection;
- Withdraw controlling and supervisory functions from the competence of legal entities engaged in economic and other business activity;
- Procedures for the decentralization of planning and implementation of decisions that stipulate assigning major responsibility for their implementation to local self-governance bodies and nature use entities;
- The enhancement of human resources capacity and active work of controlling and inspecting bodies, courts, prosecution offices and representatives of civil society to prevent violations of environmental legislation;
- Streamlining and efficient application of measures of the legal, administrative, criminal and economic liabilities of legal entities and individuals for violating environmental protection legislation and the provisions and rules for rational use of natural resources;
- Creating permanently operating public councils and expert working groups in Republican and regional state bodies as a priority measure for involving the public and intellectual elite in the process of decision-making and control over their implementation;
- Strengthening state and public control over planning and targeted use of investments, as well as he effectiveness of the final outcomes of national and international environmental projects;
- Strengthening the scientific base, streamlining the management system and regulating the use of specially protected areas, i.e. nature parks, nature reserves, wildlife reserves, etc.

3.3.CAPACITY FOR DEVELOPING AN ECONOMIC STIMULATION, MARKET MECHANISMS AND TECHNOLOGIES TRANSFER SYSTEM

The fulfillment of obligations under the Conventions requires the member states to apply economic tools that imply:

- expansion of the tax base and use of a reasonable part of taxes, fees, national resources and goods in accordance with the basic goals of the conventions;
- providing financial support for environmental protection measures in accordance with real national possibilities;
- developing a system of incentives for introducing resource-saving technologies at national level.

Where these conditions are implemented, economically developed countries – donors and international financial institutions – will provide additional financial resources and transfer new technologies.

Implementation of obligations under the GEC by Kyrgyzstan depends primarily on the actual economic possibilities of the state. It is obvious that environmental protection activities could be funded from three sources – budget allocations, investments from the private sector, and from grant and loan support of states-partners and international financial organizations.

The existing economic situation in Kyrgyzstan requires considering any budget expenses that do not give immediate profit as low priority. Therefore, for a long time environmental activities in the Republic were funded according to the leftover principle and as a consequence, expenses on environmental protection fell to a critical level, i.e. 0.03% of GDP[16]. Implementation of resource-intensive environmental programmes was suspended in the country: for instance, since 1998 funding of activities aimed at protecting the atmosphere from pollution was completely stopped.

According to reports from local nature protection funds (LNPF) for 2003, revenues from non-budget funds amounted to 21.2 mln. Som and from the Republic nature protection fund – 8.8 mln. Som. Expenses for environment protection activities were 4.0 mln. Som. Actual expenses of the LNPF exceed the planned expenses by 13%, whereas financing of environmental protection bodies was 20% lower then the planned funds and a significant share of LNPF means is spent on structural sub-divisions of the MEE.

Box 13

"… if we had a stable economy it would be easier to fulfill our obligations under global conventions".

NCSA Sociological Survey
An interview with an employee of a joint venture, Bishkek

Box 14

" The most serious problem is external debt servicing. First we consider expenses for external debt payment and the other funds are allocated by sectors. This is what we call the leftover principle. Local authorities criticize us, and sometimes ministries, but this is what actually happens".

NCSA Sociological Survey
An interview with an employee of the Ministry of Finance

Box 15

"Fulfillment of the obligations under the conventions requires significant financial resources. Due to the fact that there is no separate budget line for implementing the conventions' requirements, each agency, for instance, the State Forestry Service and MAWRPI fulfill their obligations within the limits of their possibilities, attracting various means, including personnel and budget means. There are no available funds for implementing the Convention on Climate Change and Convention on Biodiversity."

NCSA Sociological Survey
An interview with a representative of a Republican state body

[16] National Report on the State of the Environment in Kyrgyzstan, 2001-2003, Bishkek, 2003. at 150.

Box 16

"…From time immemorial our grandfathers have said: "Do not throw waste into water or on the ground and do not strip the trees". But now when it is cold in the house, children are freezing, and there is no coal, the only thing left is to go and cut down the trees and use them as fuel. I believe that all this will be restored as soon as the economy grows and welfare increases".

NCSA Sociological survey
An interview with a representative of the environmental agency

Environmental activities in Kyrgyzstan are funded from the budget from the accumulation of payments for environmental pollution in nature protection funds. The activities of such funds are not sufficiently effective due to the small amounts of revenues and lack of necessary transparency in the targeted use of these funds. Moreover, there are no long-term programmes and plans on the implementation of investment policy accompanied by a clear justification of priorities.

Funding of activities on environmental protection and rational nature use is based on the mechanism that requires full coverage of expences for environmental activities by economic entities-polluters. However, the existing legislative framework in the area of natural resources, including biological resources use, does not take into account the correlation of the economic and environmental benefits. Due to the application of outdated norms and low rates of fines, mechanisms of financial measures are not efficient. Thus, in a race for economic benefits natural resources users often accompanied by the negligence and connivance of local authorities, do not compensate for all the consequences of damage to the environment. At the same time when procuring wood or herbs, not only the cost of such resources, but also the full amount of expenses related to their sustainable reproduction should be taken into account.

For a long time the issue of additional funding of water protection activities from payments for the economic use of water for commercial purposes to the national budget has not been solved. It is expected that with the new Water Code of the Kyrgyz Republic that was adopted at the end of 2004, sustainable sources of budget funding of water economic and water protection activities can be significantly expanded in the short-term.

Certain experience of market mechanisms has been generated in the country. These mechanisms allow the use and development of new technologies.

Such mechanisms in particular include the Demonstration Zone of Bishkek private enterprise that is introducing new energy saving technologies. Tansuu Ltd. is actively working with state bodies to improve the legislation in the area of the production, introduction and use of fuel systems by adapting norms and standards developed in Russia; the Biosphere Reserve Directorate in partnership with the GTZ Support to the Issyk-Kul Biosphere Reserve Project that implements the installation of alternative sources of energy and treatment facilities in pilot health resorts at Issyk-Kul Lake; the Centre for Agrarian Sciences under the MAWRPI with the support of FAO, ICARDA; Helvetas a Swiss International Cooperation Association has created the Agricultural Consulting Service (ACS)

Small Grants Programme (SGP) aims at reorientation of human activity to rational use of nature resources

that provides farmers with technologies for environmentally sound land use and water uses associations with the technology for rational water distribution.

Box 17

Global Environmental Convention pays an attention to market mechanisms in implementation of country obligations with balanced leadership of governmental sector through decentralized model of local communities' involvement …

NCSA Sociological Survey
An interview with representative of business structure.

These projects create precedents of strategic importance: as a result of their implementation not only GEC obligations are being actively implemented, but also the basis for further development of environmental activities is being formed. In particular, within the framework of such market-oriented projects, real partnerships between different categories of stakeholders (state, business, civil sector and international organizations) are formed, communications channels are developed and advanced nature use technologies whose development cost large investments in developed countries, are transferred.

Box 18

The examples for the management technologies can be the following:
- *development and implementation the Concept of forestry branch development;*
- *development and implementation effective watering technologies;*
- *implementation of basin management of water industry in Issy-Kul and Jalal-Abad regions;*
- *investing and equipping of the Kumtor Operating Co. for monitoring.Most of private businesses would like to have an access to such monitoring technologies, they suggest exchanging an experience…*

NCSA Sociological Survey
An interview with representative of Republican State Administration.

One of the most efficient mechanisms of economic stimulation could be the introduction of a flexible differential taxation system that stipulates preferential rates for economic entities, who intensively develop environmentally clean and resource-saving technologies of production or who voluntarily contribute part of their profits to environmental protection activities, which is the practice in many economically developed countries. Such objectives should pursue national measures that ensure the obvious profitability of ecologically clean and low-waste production and reduced consumption of natural resources in the industrial and social sectors.

The adoption of the Law of the KR On cooperatives in 2004 is among the positive actions in this trend. The Law regulates the norms for ensuring transparent economic activity and protecting the rights of legal entities. This Law is aimed at decreasing the cost price of products and encouraging rational land and water resources use, that in general, may facilitate activating the participation of agricultural cooperatives in environmental protection activity.

There is a clear need for the wider involvement of local self-governance bodies, NGOs, and local communities concerned in discussing legislative and normative acts and planning, adopting and implementing decisions related to the legal, business and vital interests of all industries.

Noting the current limited capabilities of local self-governance bodies to invest in environmental protection activity, it is also necessary to recognize weak the business activities of local Keneshes and municipal bodies within their competencies.

According to the current legislation the economic basis for the activity of local Keneshes is natural resources, namely, land, soil, water, forests, flora and fauna, and all enterprises and organizations located on the relevant areas. Under the Law of the KR On the Underlying Principles of Budget Law in the KR the local budgets of all levels should be topped up by allocations including land tax, rent for land use, local

Box 19

GEF priorities: "Help people, in particular, local communities to protect land, forest and mountain ecosystems, specifically agricultural land at the expense of targeted and economically profitable activities at local level".

www.gefweb.org; www.undp.org/gef

taxes, non-tax payments, and allocations from the revenues of budget organizations through using special means etc. Therefore, the state policy for decentralizing managerial activity empowers local Keneshes of all levels with significant authorities related to the regulation of norms of allocations to local budgets, approval, and spending. So, joint initiatives between local Keneshes and state administration bodies on developing agricultural production and other business activities on reserve areas mainly in rural areas with redundant workforces, should be considered insufficient.

These initiatives may be aimed primarily at developing processing agricultural products, traditional crafts, services, cattle-breeding, bee-keeping, pond fish-breeding, tourism, phyto business, etc. As a result of the implementation of such economic projects a significant increase in revenues of local budgets allowing for the forwarding of a part of the additional accumulated means for environmental related actions, could be provided.

Another reason, which restricts the growth rate of business activity at the sub-regional level is the poor development of business infrastructure and sustainable corporative relations between local business entities. The priority actions could be:

- Forming a network of consulting centres, which provide legal and information support for business entities and civil society;
- Establishing a network of insurance companies, banks and credit centres, as well as independent business entities rendering intermediary services in logistics, leasing, rent or repair of agricultural, transport machinery, equipment and others.
- Creating trade purchasing companies and cooperatives, which ensure the promotion of agricultural products and local production to sales markets;
- Creating commercial centres that distribute offspring of thoroughbred livestock, high yielder seeds for various sectors of plant cultivation, mineral fertilizers and flora and fauna protecting agents among agricultural enterprises, independent farmers and peasant farms.

The above listed elements of the business infrastructure are not yet adequately spread throughout Kyrgyzstan. However, specific actions in this regard are being taken, in particular, as initiated by the MAWRPI within the implementation of a number of international projects under oblast self-governance bodies, the following bodies were established:

- Agricultural consulting service;
- Kyrgyz market information system;
- Rural and area investment committees at Ayil Okmotu level, including local public councils;
- 45 rural consulting centres for the protection of land users' rights.

The experience of forming training and retraining systems for business entities' staff including, for example, organizing a training centre to support WUA under the Department of Water Economy, MAWRPI, the training of 14 NGO representatives on issues of land reform and professional training for 100 expert land appraisers, was accumulated.

The positive shifts in implementing the major trend related to strengthening partnerships between local agricultural producers resulting from the creation of nearly 300 Water Users Associations (WUA) and the subsequent transfer of farm-irrigation systems to their ownership should be noted.[17]

[17] Resolution #234 of the Government dated April 6th 2004 On the Transfer of Water Economic Constructions to the Property of Water Users Associations and their formation.

The limited economic capacity of WUA does not allow for the implementation of wide-scale actions to rehabilitate and further develop irrigation and collecting and drainage networks and preventing the degradation and desertification of reserved land.

An adequate legislative and organizational base for attracting local communities to reform the conservative system of forestry organization and protection of forests has already been established[18]. The creation of the Working Group under the State Forestry Service of the KR on the Collective Management of Forestry has initiated the development and approval of democratic procedures for renting forestry fund land and ensured the representation of partners concerned and competent persons from local communities (Ayil Okmotu), farm and peasant economies, and aksakal councils in the process of implementing these procedures.

By organizing associations for producing and processing products, protecting the sowing of crops, forest shelterbelts and forestland, the local Keneshes need the financial and technical assistance of donors. For example, the system of collective management of forestry has been introduced under the Kyrgyz-Swiss programme. 691 contracts transferring 3,643 hectares of State Forestry Fund land to local communities for 50 years have been concluded and this has created 2600 jobs for rural citizens, who work on forest protection.

The achievement of the results above and other positive results for strengthening economic capacity at sub-regional level has become possible only by attracting foreign donor assistance. Since 1996 the Government of the Kyrgyz Republic with support from the International Development Association, Asian Development Bank, World Bank, International Fund for Agricultural Development and the United States Agency for International Development, has initiated a number of projects aimed at developing agricultural services, sheep breeding, water supply infrastructure, sanitation and communications in rural settlements, land reform, rehabilitation of irrigation systems

Box 20

Assessing the environmental activity in Kyrgyzstan, foreign respondents in their interviews noted the low salaries of officials, which may be the reason for their ignoring their duties and «low interest in business". For instance, a representative of one of the international banks said: «There are criteria and procedures of the bank, which are never complied with. There is a huge bureaucratic machine. It takes a lot of time for each department with about 1.5 thousand employees to consider all the issues. For instance we asked a question about tender design and the tender alone takes 7.5 months and another 4.5 - 5 months are needed for the design itself, therefore we suffer for a year". Consequently government policy on cooperation with international organizations creates a rather favourable condition for their participation in the projects and programmes' implementation.

The respondents from international organizations note the importance of importing advanced technologies, which in the short-term reduce the anthropogenic load on nature and have a strategic value for protecting exhaustible resources. Special focus should be made on energy saving technologies, since every winter season heating becomes a political issue because Kyrgyzstan is dependent on neighbouring countries. A number of respondents spoke in favor of adapting models and technologies to the conditions of the country. According to a number of experts there are no special communications sites in the country where all international organizations working in this area can gather and coordinate their activity to avoid overlapping.

Differences in assessing the input of international organizations in implementing duties are notable. Thus, according to a number of environmental experts some projects and programmes damage the environment of the country and local population. For instance, programmes on installing water supply systems in Kyrgyzstan should take a significant share of the responsibility for flooding and increasing the salinity of soil and increasing the threat of aggravating the sanitary and hygienic situation because "the issues of the sanitary treatment" of newly created wells and water supply systems are still outstanding. There is a situation in which «the water supply problem is resolved but the issues of sewage and drainage «travel" from one project to another as result of the absence of continuity in the management solutions of state bodies and there is no effective coordination of donor assistance."

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and others. In the short-term investment projects in the area of agribusiness and agro-marketing and development of agro-industrial complexes in the Southern regions of the Republic, are expected.

The internal and external debt of Kyrgyzstan objectively limits the possibility for further borrowing within the credit lines and simultaneously increases the dependency of the country on external grant assistance. To date such assistance has been provided for the financial support of national development programmes of Kyrgyzstan and sector-specific or sub-regional programmes.

A successful example of the mobilization of financial resources of various donors is the initiative of the CCD Secretariat and the CCD Global Mechanism in attracting a number of authoritative organizations, including the Asian Development Bank, Canadian International Development Agency, UNDP, Swiss Agency for Development and Cooperation, German Society for Technical Cooperation, as well as the International Fund for Agricultural Development and International Centre for Agricultural Research in Desert Areas (ICARDA) with the aim of implementing targeted objectives of the CCD in Central Asia. is. The Strategic Partnership Agreement signed by this group of donors was recognized at the World Summit on Sustainable Development in Johannesburg (SAR) as a positive example of an innovative approach to the implementation of the Agenda for 21st Century.

Another similar example is the adoption of the GEF Operational Programme on Sustainable Land Use, whose aim is "to decrease the reasons for and reduce the negative impacts of land degradation on the structure and functional integrity of eco-systems by implementing methods of rational land use as a contribution to ensuring the lives of the people and increasing environmental welfare"[19]. The increase of the role of this programme can be expected to be a catalyst for the mobilization of financial resources for the efficient implementation of the objectives set out above in Central Asia, including Kyrgyzstan.

In recent years Kyrgyzstan has been actively participating in other regional programmes, inter-state and non-governmental structures, for instance, in the International Fund for the Aral Sea, the Kyrgyz-Tajik Regional Mountain Centre, Regional Environmental Centre of Central Asia and others.

It is expected that implementation of the Initiative of Central Asian countries on Land Resources Management during 2005-2014 will contribute to the strengthening of Kyrgyzstan's capacity in funding activities, primarily related to the CCD obligations. At the same time, a similar approach oriented to mobilizing resources of external donors can be used to accelerate the national capacity for implementing CBD and FCCC objectives to prevent the reduction of biodiversity and climate change.

In this regard it is necessary to note that under the Small Grants Programme implemented in Kyrgyzstan, financial resources of the GEF are used in a limited way. Taking into account the wide organizational experience of the SGP, there is a necessity to consolidate the efforts of this programme mechanism and GEF resources to fulfill the obligations under the GEC.

The assessment of the implementation status of the conventions carried out by international and donor organizations in the course of sociological surveys is interesting:

Certain expectations in the area of environmental activity are related to the Environmental Protection programme component of the new UNDP and the Government of the KR Country Programme for 2005-2010. Within its framework pilot projects on environmental protection and development have been launched. Based on the lessons learnt and success stories of neighbouring countries, as well as on the experience of working with the GEF and UNDP in Kyrgyzstan, the programme will assist the efforts to preserve biological diversity and counteract the threat of global warming, soil degradation and the

[18] Resolution #377 of the Government of the KR dated July 27th 2001. Regulation on the collective management of forestry in the Kyrgyz Republic

[19] GEF. Operational Programme on Sustainable Land Management (OP-15). 2003.

depletion and pollution of trans-border water entities.

In general, the current state budget funding of environmental activities in Kyrgyzstan should be recognized as insufficient due to the small amounts of received funds, as well as the absence of the necessary transparency of their targeted use.

The private sector takes a restricted part in investing in environmental programmes and projects, as a result of the absence of a goal-seeking state policy encouraging the activation of all those actions.

One the most important mechanisms of resource mobilization should be the introduction of the 'writing off debts in exchange for sustainable development' approach.

MAIN PROBLEMS OF DEVELOPING MARKET MECHANISMS AND TRANSFERRING TECHNOLOGIES:

- Insufficient investment from internal sources in the activities to prevent land degradation, preserve biodiversity and recover from the negative consequences of climate change due to restricted opportunities of the national and local budgets;
- Incomplete and insufficient transparency of the existing market regulation mechanisms, providing replenishment of the national and local budgets and attracting private financial assets for sustainable investment in environmental activity;
- Shortcomings in regulatory mechanisms for innovations, pricing, tariff and tax policy of nature management;
- Insufficiency and inconsistency of activities to form a favourable investment climate in the country, which would promote the inflow of capital investments into the national economy, including, in business projects, related to the enhancement of the environmental situation;
- Insufficient activity and inconsistency of actions aimed at extending foreign financial support of environmental programmes by international organizations and financial institutions and development agencies of the economically developed countries and independent investors;
- Keeping the tendencies to degrade the infrastructure of nature management, caused by the limiting physical and moral depreciation of constructions, communications, equipment, technological accessories, measuring devices etc. mainly due to restricted financing for their maintenance, recovery and renovation;
- Forced reduction of scientific research, experimental and construction and technological developments in areas of developing renewable sources of energy, environmentally clean and resource saving water use and land tenure, protection and reproduction of of biological resource populations, breeding of new productive agricultural crops, creation of progressive biological technologies, reduction of greenhouse gases emissions, other waste from anthropogenic activity into the environment etc;
- Restricted use of world best practices in the areas of applied science, technologies and technical means of nature management and insufficient activity on providing access to those developments for all stakeholders;
- Absence of effective mechanisms for encouraging environmental entities to increase their business activity by introducing advanced technologies and technical means for rational use of land, water, biological, fuel-energy and other natural resources.

RECOMMENDED ACTIONS:

- Official recognition of environmental activity as a priority for the sustainable social and economic development of Kyrgyzstan, related to providing sustainable financing of this activity from the national and local budgets and environmental protection funds;
- Improving the economic tools of nature management, based on the principle of the "user and polluter pays", clarification of this purpose in the taxation policy for the use of natural (water, forestry, energy and other) resources, with consolidation of the received funds for environmental purposes;
- Introduce differentiated tariffs for services providing water and other natural resources to users, adequately considering the cost of those services in different regions of the Republic;
- Develop and implement a set of measures to create a favourable investment climate in the country, including introducing tax, Customs and other incentives for foreign partners investing in environmental projects;
- Create a database of existing and potential foreign donors, and make it available to state, non-governmental organizations and independent nature management entities;
- Activate the application of of support procedures set out in the GEC package, including the mechanism of 'clean development', writing off external debts in exchange for expanding environmental activity;
- Develop and introduce an evaluation methodology and procedures for compensating for damage from pollution, depletion and irrational use of natural resources and other negative impacts on the health of the population and the environment;
- Specify mechanisms of use (hunting, stocking and others) of biological resources, primarily aimed at preserving exotic and endemic species of flora and fauna;
- Improve the system of local taxation with a focus on strengthening business activity in rural areas, with the purpose of replenishing local budgets and proper comprehension of local environmental programmes;
- Develop and introduce mechanisms and procedures of environmental insurance, including a set of measures to create insurance funds for stabilizing the environmental situation, preventing and recovery from man-made disasters;
- Comprehensive development of environmental tourism, phyto business, beekeeping etc. promoting the attraction of additional funds to improve the condition of national parks, reserves, unique natural landscapes etc and specifically protected natural entities.
- Rehabilitate modernize and provide safe maintenance of the irrigation, collector-drainage, sewage, treatment, hydro-technical, hydro-energy, riparian, mud, flood control, conservation and other systems and facilities;
- Develop and introduce technologies for the disposal, deep processing and secondary use of industrial, agricultural and household wastes;
- Rehabilitate modernize and provide safe maintenance of radioactive and toxic waste dumps of the mining and processing industry;

- Create and promote the preconditions for active implementation of resource-saving, low-waste, environmentally clean technologies and advanced biological technologies in the industrial sectors of the economy and at household level;

- Design and implement measures for developing alternative and renewable energy sources, including those based on the application of micro hydro-power stations, biogas technologies, solar batteries, wind-energy facilities etc;

- Ensuring organizational and financial support of scientific research, experimental-construction, design-exploration and technological organizations, specializing in environmental activity and nature management and developing contacts between them and foreign partners.

3.4. CAPACITY IN THE AREA OF MOBILIZING INFORMATION, KNOWLEDGE AND TRAINING

The Round Table on Discussion of Cross-Sectoral Interaction Analisys in Implementing 3 Conventions. (Bishkek, February 2005)

The Round Table on Discussion of Strategic Action Plan for Capacity Building in Implementing 3 Conventions. (Bishkek, July 2005)

The GEC provisions envisage the execution of obligations of member countries, related with raising the awareness of the public and other stakeholders on environmental issues and implementing a system of national training and awareness programmes. Norms of the Aarhus Convention, which Kyrgyzstan joined in 2001, specify the obligations of the state to provide the public access to information, participation in the processes of making environmentally significant decisions and access to justice.

The legislative base for executing these obligations in Kyrgyzstan consists of the Law of the KR On Education, Law of the KR On Guarantees and Freedom of Access to Information and On Environmental Protection, which state:

- with the purpose of acquiring knowledge, improving the public environmental culture and professional training of specialists, ongoing education and awareness of environmental protection shall be made available beginning with the family and kindergartens.
- state environmental protection, education bodies, other state and public organizations and the mass media shall distribute environmental knowledge and propagate a friendly attitude to nature and natural resources.

The framework methodology of implementing these legal norms is described in the Continuous Environmental Education Concept[20], approved by the Board of the Ministry of Education of the KR and order of the MEE of the KR. Earlier, in 1997, the regulation and framework on comprehensive environmental education, were included in the Environmental Safety Concept of the KR.

The methodological approaches of these concepts stipulate direct participation of kindergartens, schools and secondary education establishments, scientific organizations, the mass media and NGOs in environmental education and the distribution of environmental information and involvement of international development agencies.

Currently, in Kyrgyzstan there are 2,058 schools, with more than 1.1 million students. In the standard curriculum developed in Soviet times, environment as an integral discipline was limited to 8-hour course within the General Biology topic for the 11-th grade, while the issues of biological diversity were included in the Botany and Zoology courses. Climate change was briefly described in Physics and Geography, while problems of desertification and soil preservation are also briefly considered in Botany and Physical Geography. In 1997 the Ministry of Education and Culture of the KR (now Ministry of Education of the KR) approved a modernized curriculum for students of the 9-11th grades of secondary schools and schools doing advanced study of environmental issues under Human environment with

[20] Concept of Continuous Ecological Education – Bishkek, 2004.- p. 60.

basics of bio-environment. It stipulates more comprehensive information for students about real environmental problems, directly related to the CCD, CBD and FCCC.

The Law of the KR On Education provides the right to educational establishments to independently include additional subjects in their curricula. As a result 20 innovative schools in Kyrgyzstan have included specialized environmental programmes in their education process. These programmes envisage twice as many academic hours for the Environment and other natural disciplines than in the standard secondary education programmes.

Dialogue between representatives of the KR Government and the National Academy of Sciences

Even prior to the adoption of the Continuous Environmental Education Concept, modernization of the programme for preschool children, secondary and non-school establishments, had begun in Kyrgyzstan. As a result, five universities of the Republic train specialists in the following subjects: Environmental and nature management, Environmental protection, General environment, Geological environment" Natural science and the environment, Environmental and environmental protection methodology, Alternative and renewable sources of energy and Heating engineering, environment and preserving life. Due to changing to the new training programmes for Bachelor's and Master's degrees, the discipline Environment (sometimes – Basics of the environment) was introduced as a compulsory subject in natural science disciplines. A UNESCO Environmental Education Department has been created at the Kyrgyz National University (KNU), and the Inter-university methodological council on environment, engaged in training, refresher training of specialists and the development of educational standards of curricula, has been created. Courses for postgraduate studies and doctorates and training the highest qualified staff in environment have been set up at the National Academy of Science and KNU. At the same time, not enough attention is being paid to training the applied professions – gardeners, foresters and artisans to service the systems of processing waste, treatment of wastewater etc.

Substantial support of the reform of environmental education at secondary and higher school level is provided by international development agencies and national NGO. For instance, the Soros Foundation – Kyrgyzstan supported the rollout of the Continuous Education concept among secondary schools of the republic, The Darwin Initiative Foundation in cooperation with the Hartley Trust (Great Britain) promoted the implementation of the School Green Country three-year project, stipulating both the creation of micro-reserves in schools and strengthening the components of sustainable development in training programmes. The Hartley Trust Foundation also initiated contests for the rational use of water among schools of the Republic. It should be noted that implementation of such projects has become possible because of the active participation of Kyrgyz NGO – Bigle, Biom, Aleine, Tabiyat and others.

The significant scientific potential of the Republic, which could be involved in inter-departmental and cross-sectoral cooperation, is concentrated in the National Academy of Sciences. The basic scientific potential for surveys in the area of biological diversity is concentrated in the Biological Soil Institute and Institute of Forest and Walnut Breeding, as well as in the Botanical Garden at the NAS. The activity of academic structures in these areas is implemented in close cooperation with scientific establishments of CIS countries and a number of foreign countries. Scientific research addressing the problems of combating desertification, are focused in subdivisions of the Kyrgyz Agrarian Academy and departmental scientific organizations of MAWRPI, particularly, in the Kyrgyz Scientific Research Institute of Irrigation, Crop

[21] See. In more detail: Evaluation of the capacity of the KR on implementing the Central Asian initiative on sustainable development. Law. Experience. Recommendations. Bishkek 2004. pp 94 –104.

Box 21

"I think we have enough staff. In higher education establishments they train sufficient numbers of nature protection and environment specialists however, many of them cannot find a job. Many graduates have complained to me and I know whole groups of graduates, who cannot find jobs in their profession and have found work in other systems. The number of staff is very low, and they continue to cut back, but nevertheless we should create local environmental facilities, where nature should be protected and then the trained specialists will be used in those facilities".

NCSA Sociological survey
An interview with an employee of the State Forestry Service

Research Institute, Institute of Animal Breeding, Veterinary and Pastures and other. A number of projects are being implemented with the support of WWF, IUCN, RIOD, ICARDA, SDC, USAID, TACIS and other international organizations.

The State Agency for Science and Intellectual Property (Kyrgyzpatent) oversees the scientific research. In its work special attention is paid to the area aimed at developing science, techniques and innovative processes, but they have not yet touched upon the environmental sector.

Thus, the existing scientific research potential and the number and quality of experts working in state bodies and NGO, are significant, but they do not have the capacity to fully contribute to implementing the environmental conventions.

The following factors impede this process:

- scanty state financing of scientific studies and the unavailability of material incentives to raise the level of competence and poor logistical support of scientific research organizations;
- lack of communication between environmental scientific programmes, and poor coordination of scientific research in the area of nature management;
- inadequate level of knowledge in the areas necessary for executing obligations, lack of competent personnel and reduced number of researchers as a result of migration;
- insufficient attention to implementing applied scientific research programmes, aimed at developing and introducing technologies preventing increased negative anthropogenic impact on the environment;
- disintegration of market mechanisms for science and lack of demand to develop their strategic programmes.

State educational programmes aim to provide basic knowledge on nature subjects, including environmental aspects, to students of secondary schools and also to train environmental specialists in the higher education system. On the contrary, the strategic tasks of public environmental education should be to develop a high environmental culture among the country's population, involving a large number of people in the planning of environmental policy and implementing practical environmental activities.

Special consideration should be given to the role of the state and independent mass media in distributing environmental information among the population. There are too few analytical, agitation and informative articles by respected natural science specialists and officials in the dozens of popular newspapers and magazines published in the country. News programmes of the national and local television and radio broadcasting companies most often include environmental components only when covering emergency situations or sensational news.

Information support to specialists and interested people is mainly implemented within the international projects, for instance, with GEF/UNDP support the following have been released: books entitled Climate and the Environment, Inventory of Greenhouse Gases. Kyrgyzstan: 1990-2000 and a manual on Sustainable Development of the Environmental and Economic Systems. The Central Asian trans-border project on protecting the biological diversity of the Western Tyan-Shan has initiated the following publications in Kyrgyz and Russian: Mammals and Birds – Indicators of the State of Environmental System of the Western Tyan-Shan; Plants – Indicators of the State of the Environmental System of the Western Tyan-Shan; Guidelines for the creation of Small Fruit, Wild and Decorative and Forest Hardy-

Shrub Species Nurseries; In the Workshop of the Environment; Biological Diversity of the Western Tyan-Shan and others.

With the support of those agencies, specialized information bulletins and publications are regularly issued.

Within the NCSA project the following have been published: a report entitled Global Ecological Conventions: Capacities of Kyrgyzstan, a booklet and brochure: Kyrgyzstan: Global Environmental Conventions, Global Environmental Conventions in Kyrgyzstan.

NSCA Sub Regional Workshop for Central Asian Countries. (Bishkek, January 2005)

Box 22

«An important constraint is communication gaps and lack of information being communicated resulting from the personal will and warm attitude of managers. Often the communal lack of communication and antipathy of managers of the agencies and divisions prevent the free circulation of information. This gap between key decision makers results in the isolation of agencies, promotes a narrow departmental approach and impedes the implementation of not only ecological activities of the agencies, but also the execution of obligations under the conventions. In the course of the cross-sectoral and inter-departmental fight for resources,, timely and complete information often becomes an important resource. Cases of hiding valuable information are common between competing agencies, structures and persons.

NCSA Sociological Survey
An interview with the director of the ecological agency.

Despite the above-mentioned positive progress in the area of environmental education, it should be recognized that there are no balanced public awareness programmes in Kyrgyzstan to cover all groups of the population, therefore, the priority interests of the majority of the population, particularly noted in the field, still refer to the social and economic areas, with insignificant motivation to participate in adopting and implementing environmentally significant solutions, including those related with obligations under the GEC.

The factors objectively impeding the process of raising awareness of the population, should also include the lack of certain mechanisms and time frames for developing awareness activity within the existing national legislation and normative bases, lack of financial resources allocated for these purposes, weak inter-ministerial and cross-sectoral coordination of state administration bodies, NGO, the mass media, scientific organizations and educational establishments. A serious constraint is maintaining the perception that artificially divides the interrelated block of environmental science into many disciplines and directions preventing the formation of a complete environmental ideology both with decision-makers and the general public. As a result, the actual problems related to global climate change, reduced biological diversity and degradation and desertification of land are very often not recognized as priorities for Kyrgyzstan.

MAIN PROBLEMS OF EDUCATION AND PUBLIC AWARENESS:

- Inadequate environmental literacy of the population, nature management entities and other interested parties, their inadequate awareness of a wide range of actual issues of the use and protection of environmental resources in the context of the ideology of sustainable development and GEC;
- Inefficiency of the existing measures for informing the public, caused by under-use of the mass media, specialized printed material, the Internet, public activities etc;
- Imperfection of the methodology and organization of environmental education in secondary and high schools, national, ministerial and independent systems of training and refresher training of specialists;
- Absence of proper interrelations between government bodies, educational establishments, scientific organizations and NGO in the area of environmental education and distribution of knowledge;
- Lack and imperfection of special, scientific-methodological, reference, popular literature and video materials on the environment, particularly in the area of informal education;
- Shortcomings in personnel policy, promoting the creation of new jobs to attract qualified specialists, who have acquired special education into environmental activities;
- Under-development of the technical and technological bases of the national, departmental and territorial information systems and limiting the access of users to environmental information by means of connection to the regional and international networks;
- Insufficient transparency of environmental activity at national, branch and local levels, restricting the awareness of the general public and their participation in the discussion, planning and implementation of this activity.

RECOMMENDED ACTIONS:

- Modernize the environmental education programmes for secondary and higher education establishments, compulsorily taking into account the provisions of the GEC and in the context of the European UN Economic Commission Education in the interests of sustainable development Strategy;
- Develop and implement modernized programmes for special training and refresher training of the staff of the management and control bodies of all levels of the environmental management profession, specialists of business structures, nature management subjects and other participants in environmental activity and the exploitation of natural resources;
- Develop and publish a comprehensive list of the training, methodological, reference and popular literature on the environment, including that related to provisions of the GEC;
- Regular coverage in the state and independent mass media of the pressing environmental problems, including those related to executing the obligations under the GEC;
- Develop and regularly implement measures to strengthen the public perception about the need to preserve nature, rationally use natural resources and for the population to actively participate in forming and implementing the state environmental policy;

- Organise the general distribution of methodological and technical information and know how, promoting the introduction of resource-saving and environmentally clean technologies in the production sectors and at household level;
- Develop and introduce measures to strengthen the technical and communication base for information support, promoting the extension of access of users to actual information via the Internet, national and ministerial networks, hotlines and printed publications;
- Develop legislative and organizational measures, providing transparency of and accessibility to environmental information;
- Organise public assessment of programme and business projects, which may have a negative impact on the living conditions of local communities and the environment, as well as informing the population about the results of that assessment;
- Form a permanent environmental information centre and activate the participation of national bodies in the activity of similar national organizations in Central Asia.

3.5. CAPACITY IN THE AREA OF MONITORING AND REPORTING

Representatives of Kyrgyzhydromet and National Statistics Committee - Key Institutions on Monitoring and National Data Basis

The common provision of the three conventions is that it is necessary for their member countries to implement regular monitoring of the state of the environment in general and environmental components – mineral resources, soils, water, air, flora and fauna, dynamics of stock farm animals etc.

The existing institutional system of Kyrgyzstan does not include concentrating the functions and authorities related to environmental monitoring in a single state body and they are distributed among a number of national ministries and administrative agencies. However, most of these functions are delegated to structural divisions of MEE.

The main role of coordinating and regulating the implementation of the environmental monitoring procedures is delegated to the Department of Environment and Nature Management of MEE, which according to the Regulation of the Ministry, «shall regulate any activity, which has or may have a significant unfavourable impact on the preservation and sustainable use of natural resources and carry out monitoring of their consequences by taking tests and other methods".

For implementing these tasks the executive functions of the Department include:
- organizing state environmental control over the environment and the rational use of natural resources and observation of environmental legislation;
- organizing the recording and evaluation of the state of natural resources;
- control over the cadastre of natural resources.

The following divisions of the Ministry shall also carry out the functions of monitoring and control-inspection activity at national and local levels:
- Department of Environment and State Environmental Expertise;
- Department of Environment and Nature Management;
- Bishkek, Osh city and oblast (regional) departments of environmental protection;
- Local environmental funds (LEF) and the National Environmental Fund (NEF).

Since the Government of the KR has designated certain state government bodies responsible for executing the obligations under the GEC, these agencies have been instructed to monitor certain groups of environmental parameters.

In particular, the functional obligations of **Kyrgyzhydromet (meteorological service) of the MEE** include regular control of meteorological, hydrological and agro-meteorological parameters, including indicators of the pollution of water resources and open air and volumes of greenhouse gases emissions (in the context of implementing obligations under the CCD and FCCC).

State Agency on Geology and Mineral Resources under the Government of the KR, under the functions of protecting subsurface resources and controlling the use of minerals, monitors the quantitative and qualitative state of ground water.

State Forestry Service of the KR, which includes a special unit - Department of state recording, monitoring, regulation and use of biological resources, develops the procedures for monitoring the state and rational use of flora and fauna in the context of obligations under the CBD.

National Academy of Sciences of the KR, through the Biological –soil Institute, Institute of Forestry and Walnut Planting and the Botanical Garden of the NAS of the KR, develops the scientific bases of monitoring, the permissible norms for the use of biological resources, identifies the areas subject to anthropogenic load and is called on to organize future permanent monitoring areas to evaluate the state of natural environmental systems, flora and fauna.

NCSA Workshop National Capacity: Interaction, Effective Management and Strategic Planning (Issyk-Kul, August 2005)

Department of Water Economy of the MAWRPI of the KR, using the departmental observation network shall monitor the use of water mainly in the sector of farming irrigated land, the needs of which exceed more than ¾ of the total volume of gross national water use.

Department of fish resources at the MAWRPI of the KR monitors the state and use of fish resources.

Under the obligations of the CCD, the State Registry of the KR and MAWRPI of the KR, with the participation of local self-governance bodies, should carry out monitoring of the state of the land fund of the Republic. The State Registry of the KR is responsible for coordinating and controlling the regulation of land relations and it has the functions of regularly monitoring agricultural land in two sections – monitoring soils (for arable land) and monitoring forage pastures (for forage land). The melioration condition of irrigated land should be controlled by divisions of the Department of Water Economy of MAWRPI of the KR. However work in these areas are currently at a minimum due to the degradation of the technical base and lack of finance. As a result there is no complete and reliable information on the state and dynamics of the land fund necessary for making proper decisions at national and territorial levels. This information is restricted, first of all, because the programmes on soil, erosion, melioration and agrochemical surveys are closed and the absence of a comprehensive assessment of the productivity of land resources, crop yields of grass etc. Besides, execution of obligations under the CCD is restricted by the lack of information about the process of the concentration of salt, increased salinity dynamics of the levels of ground water, concentrations of heavy metals, radio nuclides, nitrates, content of humus etc.

In this respect it should be noted that within the sanitary supervision of radioactive, toxic and chemical wastes, monitoring in this area is delegated to the Ministry of Health Care of the KR. Since 2004 social and hygienic monitoring has been delegated to the State sanitary and epidemiological service – a division of that Ministry within the context of the impact of the environmental condition on the health of the population. However, the results of the implementation of that activity are as yet insignificant because of the above-mentioned objective reasons. The local state administration bodies hardly ever use the personnel, technical and resource capacity in the assigned areas for the purposes of environmental and sanitary and hygienic monitoring.

Box 23

«May be it is worth the state considering increased funding, at least for the MEE. The controlling organizations (laboratories in Bishkek) do not have sufficient funds to purchase state of the art equipment to measure the quality of chemical emissions. It is necessary to provide advanced equipment to the laboratories."

NCSA Sociological Survey
An interview with a representative of an industrial enterprise

National Institute for Standards and Metrology (Gosstandart) of the KR was the national body on standardization, metrology and accreditation,

the functions of which included the following: approval of the national standards, maintenance of the National information funds of technical regulations, standards and other documents on standardization. By Order of the President of the KR in 2004 this body was transformed into the National Institute of Standards and Metrology of the KR.

Formation of a common national database on the state of the environment and the use of natural resources on the basis of information coming from the ministerial monitoring systems, as well as the state statistical reports, is under the competence of the National Statistics Committee of the KR. It seems obvious that the incompleteness and unreliability of the data submitted to the NSC of the KR restricts the opportunity of that agency to provide an objective and efficient summary of the environmental situation in the Republic.

In line with the problems, objectively conditioned by insufficient financial, material and technical and organizational support of the national and ministerial systems of environmental monitoring, we should note also the presence of the internal restricting factors. They include the weak activity of state bodies and particularly local self-governance bodies on planning and implementing control measures of the state of the environment. Besides, there are cases where private entities avoid submitting reliable information on the actual use of water and natural resources, on discharges of polluting substances into the environment and so on. Among state bodies, carrying out monitoring, the pursuit of the commercial use of statistical forecasts and other data prevails, which restricts their transparency and availability for all categories of users.

MAIN PROBLEMS OF MONITORING:

- Reduction of the number and degradation of the technical condition of stations and posts of the infrastructure of the environmental, hydro-meteorological, hydro-geological and melioration monitoring;
- Weak development of communications for collecting and transferring monitoring data, operational information systems and distribution of information among users;
- Lack of measuring, and analytical equipment in the chemical and bacteriological laboratories, computers, automatic recording of use of water, energy and other resources and other technical means ofmonitoring;
- Shortcomings in the existing organizational schemes and procedures for implementing state environmental supervision, first of all related to the weak coordination of the participating ministries and agencies in organizing the supervision and exchange of information, insufficient financial and material and technical support and lack of competent personnel;
- Morally outdated normative and methodological base for collecting, consolidating, and analysingthe information, making operational and long term forecasts of the state and use of natural resources and non-compliance of that base with international standards and technical regulations;
- Extremely weak development of the system of sociological and hygienic monitoring, controlling the dependence of the health of the population on environmental conditions, as well as monitoring biological resources;
- Shortcomings in the existing systems of state and ministerial statistical reporting, incompleteness and unreliability of information on the state of use of natural resources submitted by the those responsible for reporting;

- Absence of an effective system of auditing the existing and potential sources of pollution, intrusion of alien biological species and other threats to nature, as well as conditions of life support of the population;
- Absence of a single national database for environmental and social-hygienic monitoring.

RECOMMENDED ACTIONS:

- Restore the number and modernize the technical state of the control stations, posts and chemical and bacteriological laboratories, equipping them with modern means of measuring, processing and transferring information;
- Adapt the normative and methodological base for the environmental and social-hygienic monitoring to international standards ISO 14000 and others, regulating the environmental conditions;
- Improve the methodology and organizational procedures of primary processing, analysis, summarising and distributing data of the environmental, social and hygienic monitoring, as well as making reliable forecasts of the state and use of natural resources using computer technologies;
- Develop and introduce a modernized system of coordination among the ministries, agencies, establishments of local and other bodies, involved in maintaining the mentioned sections of monitoring;
- Strengthening the capacity of the National Statistics Committee of the Kyrgyz Republic and modernizing the system of national statistical reporting in terms of completely and adequately reflecting the environmental condition and use of natural resources by the monitoring data;
- Strengthening the capacity and activating the work of the national and territorial divisions of MEE, MAWE&PI, State services and the State sanitary and epidemiological service as key agencies in the area of implementing environmental and social and hygienic monitoring;
- Develop and introduce organizational structures and procedures for an environmental audit of the existing and potential sources of pollution, distribution of radioactive and toxic substances, intrusion of alien biological species and other threats to the population and environment.

In the course of implementing Phase II of the project recommendations have been developed to overcome the problems impeding the implementation of obligations under the three global environmental conventions and the further development of environmental activity and rational nature management in Kyrgyzstan. These recommendations take into account the critical views and constructive ideas, received in course of the survey and public discussions of the progress materials of the NCSA project from national ministries, administrative agencies, international, scientific, public organizations, representatives of local communities and business circles. These proposals are systemized and included in the body of the final project document – The Strategic Action Plan on strengthening the national capacity for implementing the obligations under the CCD, CBD and FCCC.

NCSA-Kyrgyzstan Project Team

II. STRATEGIC ACTION PLAN OF NATIONAL CAPACITY BUILDING FOR IMPLEMENTATION GLOBAL ENVIRONMENTAL CONVENTIONS

The Strategic Action Plan (SAP) provisions are presented in the context of developed and existed Programme documents to fulfill commitments undertaken by Kyrgyzstan in connection with joining the United Nations Convention on Biological Diversity (UNCBD), United Nations Convention to Combat Desertification/Land Degradation (UNCCD) and the United Nations Framework Convention on Climate Change (UNFCCC).

The developed proposals are aimed at consolidation of all participants' efforts involved to the nature protection and management activity to improve environmental situation in the Republic within the context of three global environmental conventions (further GEC). The pointed in GEC approaches can be used in strategic planning of actions connected with commitments of the other ratified conventions and agreements in the field of environment protection and sustainable development.

The fundamental Strategic Action Plan provisions are based on the norms of the International Law, including the ones specified in the GEC, national, constitutional and legislative norms, republican and branch program documents, including the Comprehensive Development Framework of the Kyrgyz Republic till 2010" and also data on the environment condition and nature resources management on the territory of the country and forecasts on the change of those indices for the perspective.

1. THE MAIN DIRECTIONS OF THE KYRGYZSTAN'S CAPACITY BUILDING TO FULFILL COMMITMENTS OF GLOBAL ENVIRONMENTAL CONVENTIONS

Ecological situation deterioration tendencies, which clearly became apparent during the last decades at the global level, objectively caused the necessity to consolidate the efforts of the world community to overcome jointly those threats.

Limited domestic capacities, which are typical for a developing state overcoming the consequences of a lengthy economic crisis, do not allow Kyrgyzstan ensuring stabilization independently at the current stage and making subsequent improvement of the environment conditions. This circumstance makes the country to enhance its participation in world integration processes with an aim to use world integration processes and external donor assistance to strengthen its national capacity. Kyrgyzstan joining GEC is a logical consequence of the targeted state policy.

Participation in international cooperation programs together with obtaining considerable political and economic benefits also imposes certain obligations on the involved states. For instance: common for all joining the UNCBD, UNDCCC, UNCCD countries is a responsibility for development of strategies and plans of actions aimed at overcoming and alleviation of consequences of the climate change, desertification processes and degradation of land and biodiversity conservation. This Strategy is a respond to those obligations being a document reflecting main principles of the national policy to ensure GEC requirements implementation based on a comprehensive (synergy) approach..

Kyrgyzstan ecological policy priorities, connected with implementation of obligations under the UNCBD, UNFCCC, UNCCD based on the following principles:

- Recognition of social, economic and ecological value of natural, (land, water, biological and other) resources, wish to achieve reasonable balance in the resources management with regard to the interests of the existing and future generations;

- Sovereign right of the state to independently regulate natural resources management for the purposes of sustainable social and economic development alongside with the responsibility for the damage caused to territories located outside the national jurisdiction;

- Taking into account interrelationship of the processes of the climate change, desertification and biodiversity reduction, application of synergy approach for prevention and liquidation of negative consequences and processes;

- Preference of preventive measures in nature conservation activity if compared with measures aimed at overcome of consequences of the negative impact on the environment;

- Gradual development of social and ecology oriented market mechanisms of nature management;

- Ensuring participation together with national bodies of governance at all the levels, population, local communities, non-government organizations, business circles representatives and other stakeholders in planning and implementation of ecological activity and nature management;

- Free access of the population and all nature management stakeholders to vital ecological information;

- Recognition of the necessity of international cooperation and equal partnership;

- Prevention of ungrounded discrimination or hidden limitation of social needs, entrepreneurship activity and international economic connections in conducting nature preservation activities.

Potential benefits for Kyrgyzstan from joining GEC are connected with:

- Development of mutually advantageous cooperation and sustainable partnership relations with foreign states, non-government organizations and business circles in the area of ecological activity;
- Expansion of access to information, advanced technologies and technical means being in ownership of countries- leaders of the world community to upgrade efficiency of governance and nature resources management;
- Expansion of possibilities to obtain external grant assistance for projects related with overcoming of consequences of climate change, desertification, reduction of biodiversity;
- Ensuring equal participation in procedures of inter-state cooperation, including the ones for "pure development" mechanisms in order to receive additional investments for the purposes of introduction of environmentally appropriate technologies, adapting to climate changes and so on.

Apart from the mentioned benefits Kyrgyzstan implementation of obligations under UNCBD, UNFCCC, and UNCCD will serve as an additional incentive for enhancement of a set of national activities to enable sustainable social and economic development with regard to ecological safety norms.

Voluntary joining the legal environment of the GEC set does not lead to noticeable burden for the national economy, assuming obtaining benefits even in the short-term perspective. Basic GEC goals coincide with priorities of national policy, specified in the Comprehensive Development Framework till 2010, Concept On Transfer of the Kyrgyz Republic to Sustainable Development within the framework of the Agenda of the 21 century and other program documents. At the same time current practical activity aimed at implementation of the obligations of Kyrgyzstan under GEC must be acknowledged as insufficiently effective.

In Kyrgyzstan being a democratic state with the market economy and high level of education of the population ***there have already been formulated the fundamentals of the legal political system*** for a comprehensive social and economic development as a whole and for enhancement of nature conservation activity as a mandatory component of sustainable development. Along with that ***key reasons promoting aggravation of the ecological situation in the Republic as the following:***

At the system level:
- high level of poverty and unemployment among the population;
- limited internal financial capacities for expansion of investments into nature protective activity;
- excessive level of physical and moral depreciation of infrastructure, industrial and material and technical basis of nature management;
- poor development of legal and economic regulation mechanisms, management and protection of natural resources.

At the institutional level:
- low effectiveness of the existing system of planning, taking and implementation of decisions due to delays and inconsistency of reforming of the structure of governance at all the levels;
- weak development of stimulation mechanisms and responsibility of all stakeholders for the final results of nature protective activity and natural resources rational use;
- poor participation of nature management subjects and civil society representatives in the processes of taking decisions and implementation of decisions of bodies of governance.

At the individual level:
- poor awareness of the civil society, governing structures and nature management subjects and as a consequence domination of the deviated ideas of inexhaustible Kyrgyzstan natural resources and ecological activity being of low priority for the country;
- lack of adequate motivation for nature protective activity at all the levels of public governance bodies, nature management subjects and broad strata of the civil society.

In order to eliminate main reasons restricting the national capacity the Strategy envisions a set of actions with the general goal to enable rational management of land, water, biological and related to them other natural resources and stabilization of their condition under the impact of increasing anthropogenic pressure and global climate warming. Achievement of this goal is a necessary condition for sustainable social and economic development.

Implementation of the main strategy directions

Further practical measures on the implementation of GEC requirements will be purposeful to realize predominantly in the framework of integrated programs of sustainable development of Kyrgyzstan in which the problems of protection and use of natural resources should be considered together with objectives of poverty overcoming, population health and life support improvement and other very important social and economic aspects.

Strengthening of capacity of the republic for effective implementation of these measures can be provided in case of the implementation of all legal, institutional and economic reforms indicated in the Strategy, radical modernization of infrastructure and nature management measures, conscious active participation of civil society and subjects of nature management in these processes.

At the same time, scare domestic, first of all, economic capacity make apply pragmatic tactical approaches to the implementation of obligations under GEC which provide for step-by-step building of national capacity taking into consideration real rate of country economy enhancement and capacity for attraction of external donor assistance.

In a short-term perspective the efforts should be focused on achieving the main purpose – ***forming sustainable legal, organizational and economic basis for the implementation of obligations under GEC.***

To achieve this purpose it is necessary to implement the following in priority order:

- ✓ ***Strengthen national legislative normative and methodical basis*** in the context of ideology of sustainable development, integrated management of natural resources, market structure of economy and adaptation of norms of international law, including GEC provisions;

- ✓ ***Finish reforming of national management*** structure of natural resources, ecological activity and regulation of conditions of nature management in the context of decentralization and democratization of the process of taking management decisions, and charging local self-governmental bodies and subjects of nature management with the main liability for practical implementation of such decisions;

- ✓ ***Strengthen coordination mechanism of ecological activity*** on the basis of National Commission on Sustainable Development (NCSD), interdepartmental working groups and nongovernmental organizations interacting with the Commission;

- ✓ ***Modernize infrastructure and mechanisms of conducting monitoring*** of the condition and use of land, water, biological and other natural resources to gain compliance with the modern national needs;

- ✓ ***Acquire practical experience of rational nature management and nature-conservative activity*** on the basis of realization of pilot projects of experimental implementation of progressive technologies and technical facilities in local demonstration zones, manufacturing companies or among interested local communities;

- ✓ ***Create preconditions for sustainable financing of ecological activity*** by means of forming favorable investment climate in the country to attract domestic and foreign capital investments and donor assistance, as well as on the basis of replenishment of revenues of republican and local budgets;

- ✓ ***Improve the system of ecological education and information provision*** of civil society and subjects of nature management;

- ✓ ***Ensure an involvement of the civil society to the process of implementation the GEC obligations.***

At the republican level, planning of measures with specified terms, executors and sources of financing should be implemented by the basic administrative departments responsible for the implementation of obligations under GEC, including MEE, MAWRPI and State Forest Service of the KR, on the instruction of the Government of the KR and under the coordinating role of the NCSD.

Planning of the similar measures at the territorial level should be implemented in the context of republican programs of sustainable development, but taking into account specific local conditions, on the basis of joint activities of bodies of local state administration and local Keneshes and required participation of authoritative representatives of local communities and business circles.

At the same time, conditions of implementation of ecological activity should be adjusted and ensure:

- sufficient economic stimulation for enhancement of this activity;
- democratization and transparency of participation procedures on the basis of open tenders and prevention of facts of concealed discrimination or corruption in the process of selection of the main sub-contractors for ecological projects;

- unconditional observance of technical standards, regulations of works implementation and contract obligations by executors;
- state and public control over efficient targeted use of budget, donor and other financial resources allocated for ecological purposes.

In a short-term perspective, the main emphasis in the process of interaction of governmental bodies with local communities should be placed on:

- prevention of destruction or predatory use of natural resources, first of all, nonrenewable resources, particularly valuable and endemic species of plants and animals;
- prevention of degradation and gradual stabilization of the condition of natural and anthropogenic ecosystems;
- provision of satisfactory sanitary condition of inhabited localities and adjacent territories;
- involvement of community in implementation of preventive measures and elimination of consequences of negative natural and man-caused effect on environment.

A list of actions on the implementation of the main directions of the Strategy for a short-term perspective and basic indicators of effectiveness of their implementation are regulated in the attached Action Plan on National Capacity Building. On the assumption of successful implementation of these measures, sufficient preconditions for achieving progress in Kyrgyzstan in the implementation of obligations under GEC in succeeding years will be created.

2. MATRIX OF ACTIONS FOR NATIONAL CAPACITY BUILDING TO IMPLEMENT GLOBAL ENVIRONMENTAL CONVENTIONS

THIS MATRIX REGULATES THE FOLLOWING STRATEGIC DIRECTIONS:

Strategic Direction 1 Improving the legal framework
Strategic Direction 2 Strengthening institutional capacity and coordination
Strategic Direction 3 Improving a system of market mechanisms and economic stimuli
Strategic Direction 4 Development of new technologies
Strategic Direction 5 ***Strengthening information and education capacity***
Strategic Direction 6 Improving natural resources monitoring

LIST OF CONVENTIONAL ABBREVIATIONS OF RESPONSIBLE EXECUTORS

BLSA	Bodies of Local State Administration
MAWRPI	Ministry of Agriculture, Water Resources and Processing Industry of the KR
MEDIT	Ministry of Economic Development, Industry and Trade of the KR
MEE	Ministry of Ecology and Emergencies of the KR
ME	Ministry of Education of the KR
MF	Ministry of Finance of the KR
MFA	Ministry of Foreign Affairs of the KR
MJ	Ministry of Justice of the KR
MH	Ministry of Health of the KR
MIA	Ministry of Internal Affairs of the KR
MAIIC	Ministry for Affairs of International Integration and Cooperation of the KR
MLSGRD	Ministry for Affairs of Local Self-Government and Regional Development of the KR
MLSP	Ministry of Labour and Social Protection of the KR
MTC	Ministry of Transport and Communications of the KR
NAS	National Academy of Sciences of the KR
NCSD	National Statistics Committee of the KR
NGOs	Nongovernmental organizations
NISM	National Institute for Standards and Metrology of the KR

NSC	National Commission on Sustainable Development
SACC	State Architecture and Construction Commission under the Government of the KR
SCA	State Communications Agency under the Government of the KR
SCSPM	State Committee of the KR on State Property Management
SCTSYP	State Committee of the KR on Tourism, Sport and Youth Policy
SEA	State Energy Agency under the Government of the KR
SENM	Subjects of Entrepreneurship and Nature Management
SFS	State Forestry Service of the KR
SGMRA	State Geology and Mineral Resources Agency under the Government of the KR
SR	State Agency on the Registration of Rights to Immovable Property under the Government of the KR
SSIPA	State Science and Intellectual Property Agency under the Government of the KR

LISTOF CONVENTIONAL ABBREVIATIONS OF INVESTMENT SOURCES

IOBIS – internal off-budget investment sources
EDS – external donor support
ECI – external capital investment
SB– state budget
LBs – local budgets
LNPF – local nature protection fund
TNU – funds received from taxing nature users
RNPF – Republican Nature Protection Fund
SF – special funds received from consumers of natural resources, communal-general services etc.

URGENCY INDICES OF NATIONAL CAPACITY BUILDING ACTIONS

STP – short-term perspective (2005-2007)
MTP – medium-term perspective (2007-2010)
LTP – long-term perspective (after 2010)

Note: the responsible executors on the each set objective are in bold in column 3

STRATEGIC DIRECTION 1. IMPROVING THE LEGAL FRAMEWORK

Tasks of national capacity building	Expected results	Responsible executors and partners	Actions urgency indexes	Sources of financing		Indicators of effectiveness of expected results
				Internal	External	
1	2	3	4	5	6	7
1.1. Implement correction of the law of the KR «On Environmental Protection» etc., legislative norms of nature protection integrating the principles of sustainable development and considering international commitment undertaken by the KR	Approval and implementation of new improved environmental laws. Provision of sustainable legislative framework for effective implementation of environmental activity in the context of GEF	Jogorku Kenesh, Government of the KR, MEE, MAWRPI, SFS, MJ	STP	SB	EDS	I 1.1.a. a new legislative norms and amendments are came on coming into effect. I 1.1.b. Compliance of legislative framework to GEC requirements and principles of sustainable development
1.2. Improve and add republican, departmental and territorial subordinate legislation, regulating nature management and environmental protection taking into account GEC requirements	Approval and implementation of new improved subordinate legislation. Concrete definition of mechanisms of legal norms implementation. Elimination of declarative, duplicated, contradictory and morally obsolete provisions of subordinate legislation.	Government of the KR, MJ, MEE, MAWRPI, MEDIT, MTC, MH, SFS, SGMRA, SEA, NSC, State Register, SCA, MAIIC, MLSGRD, BLSA, NAS, NGOs	STP (MTP)	SB, LBs, RNPF, LNPF	EDS	I 1.2.a. Compliance of new and current by-laws with constitutional and legislative norms. I 1.2.b. Compliance of provisions of by-laws with requirements of GEC, ISO 14000, ISO 14001 and other international norms and standards I 1.2.c. Compliance of by-laws with international norms and undertaken obligations

1.3. Improve republican, departmental, and territorial environmental programs of environmental activities in the context of nature protection, integrated sustainable development principles and considered international commitments of the KR	Approval and implementation of new improved programs and action plans of their realization. Increase of effectiveness of environmental activities and nature management as a result of strengthening financial, material and organizational support of the improved development programs	Jogorku Kenesh, Government of the KR, MLSGRD, MEE, SFS, MAWRPI, MEDIT, MAIIC, MTC, SACC, MH, SEA, SGMRA, MLSP, MF, MJ, SCTSYP, SCA, SSIPA, NAS, NGOs, SENM	STP	SB	EDS	I 1.3.a. Compliance of new and improved programs with principles of sustainable development and GEC requirements. I 1.3.b. Level of the improved development programs provision with financial, material, and human resources. I 1.3.c. Annual indicators of programs implementation in financial and volume terms I 1.3.d. Availability of legislative acts that oblige the responsible concrete executive agencies and persons to fulfill the defined Programmes I 1.3.e. Taking into account mechanisms of new programmes implementation on all levels with obliged economic and environmental assessment consequences of their approval

1.4. Improve norms and mechanisms of legal, economic liability for breaking environmental legislation and nature management regulations	Approval and implementation of legal acts regulating liability of population, management bodies and subjects of entrepreneurship for breaking environmental legislation and nature management regulations.	Jogorku Kenesh, Government of the KR, MJ, MF, MIA, MEE, MEDIT, MLSGRD, NCSD, NGOs, SENM	STP (MTP)	SB	EDS	I 1.4.a. Availability of improved norms in the existed legislation regulating the legal and economic responsibility for breaking environmental legislation and nature management regulations. I 1.4.b. Indicators of social and economic damage caused by breaking environmental legislation and nature management regulations. I 1.4.c. Public awareness about responsibility for breaking environmental legislation and nature management regulations using mass media with examples of reparations of social and economic damages.

1.5. Improve mechanisms of interaction of national bodies and independent business circles of the KR with international organizations, foreign donors and other partners in relation to environmental activities	Approval and implementation of documents reflecting national policy bases, specified mechanisms and procedures of international cooperation in the field of environmental activities. Increase of practical environmental activity as a result of attraction of additional foreign investments and donor assistance.	Jogorku Kenesh, Government of the KR, NCSD, MFA, MAIIC, MEE, MLSGRD, MEDIT, MF, BLSA, NGOs, SENM	STP (LTP)	SB, LBs, RNPF	EDS, ECI	I 1.5.a. Agreements, memorandums, intention protocols between the KR and particular international organizations, financial institutions, and other partners. I 1.5.b. Availability of norms for non-fulfillment appropriate procedures under signing international agreements for responsible persons. I 1.5.c. Number of foreign partners involved in cooperation in environmental field. I 1.5.d. Economic effect of international integration and cooperation development.

STRATEGIC DIRECTION 2. STRENGTHENING INSTITUTIONAL CAPACITY AND COORDINATION

Tasks of national capacity building	Expected results	Responsible executors and partners	Actions urgency indexes	Sources of financing		Indicators of effectiveness of expected results
				Internal	External	
1	2	3	4	5	6	7
2.1. Adjust functions and authorities of republican and local bodies in the field of administrative regulation of nature management and environmental protection in the context of implementation of GEC requirements	Approval and implementation of improved structure of republican and local governmental bodies and their adjusted functions and authorities. Making control and supervision functions outside the competence of legal entities implementing economic and entrepreneurial activity.	The President of the KR, Jogorku Kenesh, Government of the KR, BLSA	STP (MTP)	SB LBs	EDS	I 2.1.a. Approved provisions and charters of republican and local governmental bodies. I 2.1.b. Lack of excessive and duplicated functions and authorities in the structure of governmental bodies. I 2.1.c. Compliance of activity of republican and local governmental bodies established by their provisions with principles of sustainable development and GEC requirements. I 2.1.d. Including to regulations of the ministries and departments the responsibility of officials for the state of managed objects (forest fund, land resources etc.)

2.2. Improve mechanisms of coordination of interaction of management bodies, subjects of nature management, local communities in the field of nature management and environmental activity in the context of GEC requirements	Establishment of National Commission on Sustainable Development and implementation of new procedures of coordination of environmental activity and nature management under its aegis.	Administration of the President of the KR, Jogorku Kenesh, Government of the KR, MLSGRD, MEE, Environmental Local Keneshes, BLSA, NGOs	STP (LTP)	SB LBs	EDS	I 2.2.a. Decree of the President of the KR on establishment of NCSD. I 2.2.b. Regulation of the Government of the KR on measures on strengthening coordination of environmental activity and nature management. I 2.2.c. Indicators of participation of community in planning and implementing environmental activity.
2.3. Charge bodies of local administrations and subjects of nature management with the responsibility of predominant implementation of practical measures on natural resources conservation and management	Approval and implementation of decentralization of planning and performing management solutions in the field of environmental activity and nature management	Jogorku Kenesh, Government of the KR, MLSGRD, local Keneshes, MEE, BLSA, SENM, NGOs	MTP (LTP)	SB, LBs, RNPF, LNPF, SF, IOBIS	EDS	I 2.3.a. Introduction amendments into the KR law on BLSA and local governance Bodies I 2.3.b. Availability of legislation on function an duties transfer to governance bodies structures. I 2.3. c. Regulation of the Government of the KR on additional measures on provision of rational use of natural resources. I 2.3.d. Indicators of participation, in volume and financial terms, of bodies of local state administration and subjects of nature management in environmental activity.

2.4. Improve mechanisms of state and public control over observance of norms of rational nature management and environment conservation in the context of GEC requirements.	Approval and implementation of legal mechanisms of strengthening state and public control. Increase of participation of representatives of community and national scientific and technical elite in planning, realizing and control (expertise) over implementation of environmental activity.	Government of the KR, MEE, MAWRPI, MH, SFS, NISM, SEA, SACC, NSC, State Register, MIA, MLSGRD, BLSA, local Keneshes, MLSP, NGOs, SENM	STP (LTP)	SB, LBs, SF, TNU, IOBIS, RNPF, LNPF	EDS	I 2.4.a. Introduction amendments into legislation of all levels with clear mechanisms and procedures of state and public expertise and implementation of monitoring. I 2.4.b. Number of implemented government and public expertise at the proposal and project stages. Number and effectiveness of activity of public councils and expert working groups under ministries, departments, bodies of local state administration and local Keneshes. I 2.4.c. Number (%) of subjects of nature management covered by the system of state and public control (monitoring implementation).
2.5. Provide development and effective management of special protected natural reservation (SPNR)	Approval and implementation of a number of measures on increasing the area and improving the environmental condition of SPNR. Increasing the area of SPNR. Restoring population of natural flora and fauna in SPNT.	Jogorku Kenesh, Government of the KR, local Keneshes, MLSGRD, MEE, SFS, SCTSYP, MAWRPI, BLSA, NAS, NGOs, SENM	MTP (LTP)	SB, LBs, SF, IOBIS, RNPF, LNPF	EDS, ECI	I 2.5.a. Approved by the Government of the KR strategy of SPNR development. I 2.5.b. The areas of SPNR. I 2.5.c. Number of species of flora and fauna within SPNR. I 2.5.d. Annual costs for maintenance of SPNT.

STRATEGIC DIRECTION 3. IMPROVING A SYSTEM OF MARKET MECHANISMS AND ECONOMIC STIMULUS

Tasks of national capacity building	Expected results	Responsible executors and partners	Actions urgency indexes	Sources of financing		Indicators of effectiveness of expected results
				Internal	External	
1	2	3	4	5	6	7
3.1. Improve taxation basis of subjects of nature management	Approval and implementation of improved system of taxation in relation to use of water, land, forest and other natural resources. Increase of volume of internal investments for environmental purposes	Jogorku Kenesh, Government of the KR, local Keneshes, MF, MEE, MEDIT, MLSP, MLSGRD, NGOs, SENM	STP (MTP)	SB, LBs	-	I 3.1.a. Regulation of Jogorku Kenesh of the KR on making changes and additions to economical and tax legislation. I 3.1.b. Amount of revenues of republican, local budgets and nature protected funds as a result of adjustment of basis of assessment.

3.2. Develop and implement mechanisms of market regulation of price and tariff policy of nature management in the context of GEC requirements implementation with the aim environmental activity stimulating	Approval and implementation of mechanisms of regulation of price and tariff policy of nature management taking into account real prime cost of works and services and paying capacity of consumers. Creation of sustainable system of economic encouragement of rational natural resources use.	Jogorku Kenesh, Government of the KR, MF, MEE, MEDIT, MLSP, MLSGRD, local Keneshes, BLSA, NGOs, SENM	STP (LTP)	SB, LBs, IOBIS	EDS	I 3.2.a. Regulation of Jogorku Kenesh and Government of the KR on measures on improvement of price and tariff policy of nature management. I 3.2.b. Volume of investments for environmental projects from local budgets, nature protection funds and funds of independent subjects of nature management. I 3.2.c. Compliance of prices and tariffs with real prime cost of works and services in the field of nature management.
3.3. Improve methodology of assessment and procedures of compensation of damage caused by irrational use of natural resources, and negative effect on environment population health	Approval and implementation of mechanisms of strengthening economic liability of subjects of nature management. Reduction of anthropogenic load on environment. Increase of volume of internal investments for environmental purposes	Government of the KR, MEE, MH, MF, MJ, MEDIT, MLSP, NAS, NGOs, BLSA	MTP (LTP)	SB, RNPF, LNPF	EDS	I 3.3.a. Regulation of the Government of the KR on strengthening liability for causing damage to environment. I 3.3.b. Annual amounts of levies and compensations for causing damages.

3.4. Provide forming in the KR favorable investment climate for attraction of foreign donors and investors in environmental projects.	Approval and implementation of Comprehensive National Program for Attraction of Foreign Investments and Donor Assistance in the KR. Increase of volume of foreign investments and donor assistance.	Jogorku Kenesh, Government of the KR, NCSD, MEE, MF, MID, SSIPA, MEDIT, MAIIC, MLSGRD, NGOs	STP (LTP)	SB, IOBIS	EDS, ECI	I 3.4.a. National Program for Attraction of Foreign Investments and Donor Assistance. I 3.4.b. Unified database on foreign donors and investors. I 3.4.c. Annual volume of foreign investments and donor assistance
3.5. Develop national system of environmental insurance	Forming a system of environmental insurance as an effective mechanism of compensation of damages caused by natural disasters and man-caused influences	Jogorku Kenesh, Government of the KR, MF, MEDIT, MEE, MLSP, SCSPM, MLSGRD, NGOs, SENM	MTP (LTP)	SB, LBs, IOBIS	EDS, ECI	I 3.5.a. Regulation of the Government of the KR on measures on development of a system of environmental insurance. I 3.5.b. Number of contracts on environmental insurance. I 3.5.c. Annual amount of payments on environmental insurance contracts.

3.6. Provide development of environmental tourism facilitating attraction of additional funds for environmental purposes of the KR	Approval and implementation of national program of environmental tourism development. Increase of volume of internal investments for environmental purposes as a result of growth of money deducted from revenues of environmental tourism.	Government of the KR, SCTSYP, MF, MEDIT, MEE, MIA, MAIIC, MLSGRD, BLSA, NAN, NGOs, SENM	STP (LTP)	SB, LBs, SF, IOBIS, RNPF, LNPF	EDS	I 3.6.a. Regulation of the Government of the KR on additional measures on environmental tourism development. I 3.6.b. Annual volume of services in the field of environmental tourism in financial terms. I 3.6.c. Annual volume of financial resources assigned by environmental tourism for development of environmental activities.
3.7. Implement mechanisms of support of poor and developing countries foreseen a debt-for-environment swap procedure and assistance in implementation of environmentally appropriate technologies	Reduction of foreign debt of the KR. Increase of volume of investments for environmental purposes. Increase of business projects connected with implementation of environmentally appropriate technologies.	Jogorku Kenesh, Government of the KR, NCSD, MF, MEE, MFA, MAIIC, NGOs	STP	SB	EDS	I 3.7.a. Interstate agreements and treaties with international financial institutes on restructuring external debt of the KR. I 3.7.b. Total indicators of external debt of the KR. I 3.7.c. Amounts of investments for environmental activity as a result of implementation of a mechanism «a debt for environment swap” and «clean development mechanism”

Tasks of national capacity building	Expected results	Responsible executors and partners	Actions urgency indexes	Sources of financing		Indicators of effectiveness of expected results
				Internal	External	
1	2	3	4	5	6	7
4.1. Stop processes of degradation, increase productivity of irrigated and dry agricultural lands in the context of GEC requirements	Rehabilitation of used areas and increase of productivity of irrigated and dry arable lands. Provision of food security of the KR. Reduction of unemployment and growth of income of rural population.	MAWRPI, MLSGRD, BLSA, SENM	STP (LTP)	SB, LBs, SF, TNU, IOBIS	EDS, ECI	I 4.1.a. Areas of developed dry, irrigated and drained lands. I 4.1.b. Standard indicators of agricultural land quality. I 4.1.c. Productivity of agricultural lands of different categories.
4.2. Rehabilitate and provide growth of forests, productive pastures, bushes, and water and bog lands in the context of GEC requirements.	Increase of areas and productivity of forests, pastures, bushes, and water and bog lands. Increase of productivity of cattle breeding, poultry keeping, fishery, hunting business, phyto business etc.	MAWRPI, MLSGRD, SFS, MEE, BLSA, NGOs, SENM	STP (LTP)	SB, LBs, RNPF, LNPF, SF, TNU, IOBIS	EDS, ECI	I 4.2.a. Area of forests, pastures, bushes, and water and bog lands. I 4.2.b. Productivity (crop capacity, specific volume of saleable wood etc.) of lands of different categories. I 4.2.c. Annual expenses for rehabilitation and enlargement of lands. I 4.2.d. Economic effect of lands use.

4.3. Stabilize territories of natural habitats and amount of populations of wild animals and plants in the context of GEC requirements.	Stabilization and further increase of territories of natural habitats and amount of endangered, endemic and valuable wild animals and plants.	MEE, SFS, MLSGRD, BLSA, NAS, NGOs, SENM	STP (LTP)	SB, LBs, RNPF, LNPF, TNU, IOBIS	EDS, ECI	I 4.3.a. Biodiversity Cadastre and the Red Book of the KR. I 4.3.b. Taxon indicators of biodiversity and concentration of animals and plants species. I 4.3.c. Number of extinct species or endangered species. I 4.3.d. Area of natural habitats of concrete species of animals and plants
4.4. Rehabilitate production and material base of enterprises participating in environmental activity	Rehabilitation and further development of productive capacity of construction and mounting, repair, transport and other enterprises.	Government of the KR, MEE, MAWRPI, MEDIT, MTC, MH,SACC, MLSGRD, BLSA, SENM	STP (LTP)	SB, LBs, SF, TNU	EDS, ECI	I 4.4.a. Annual volume of investments for development of production, material and technical base. I 4.4.b. Annual scope of works, services and output production
4.5. Implement advanced technologies of utilization, processing and secondary use of industrial, agricultural and domestic waste	Improvement of sanitary life support conditions of urban and rural population. Decrease of pollution of environment by industrial, agricultural and domestic waste.	Government of the KR, MEE, MEDIT, MTC, MAWRPI, SEA, MH, SSIPA, NISM, MLSGRD, NAS, BLSA, NGOs, SENM	MTP (LTP)	SB, LBs, SF, TNU, IOBIS	EDS, ECI	I 4.5.a. Annual volume of investments for waste utilizing and processing. I 4.5.b. Annual volume of waste of different categories utilized based on new technologies. I 4.5.c. Annual economic effect of secondary use of waste

4.6. Provide establishment of new storage rehabilitation and secure maintenance of storage device for industrial, agricultural and domestic waste	Improvement of sanitary life support conditions of urban and rural population. Prevention of salvo release of radioactive, toxic and other substances and pathogenic microbes from storage devices into environment	Government of the KR, MEE, MEDIT, MAWRPI, MTC, SEA, SACC, MLSGRD, BLSA, SENM, NGOs	STP (LTP)	SB, LBs, RNPF, LNPF, SF, TNU, IOBIS	EDS, ECI	I 4.6.a. Data of annual monitoring and audit of environment pollution sources. I 4.6.b. Annual volume of investments for maintenance, rehabilitation and development of storage devices, tailing dumps etc. I 4.6.c. Compliance of technical condition of storage devices with standard requirements
4.7. Provide rehabilitation and modernization of water facilities (irrigation, collector and drainage, hydro-power, sewerage, flood protection, mud dam and other facilities and communications, systems of industrial and civil water supply and waste treatment)	Rehabilitation and further improvement of indicators of security and effective maintenance of water management infrastructure.	MAWRPI, MEDIT, MTC, SACC, SFS, MH, SGMRA, SEA, MLSGRD, BLSA, SENM	STP (LTP)	SB, LBs, SF, TNU, IOBIS	EDS, ECI	I 4.7.a. Data of annual inventory and certification of objects of water management infrastructure. I 4.7.b. Annual volume of investments for maintenance and development of infrastructure I 4.7.c. Compliance of technical conditions of infrastructure with standard requirements and social and economic needs

4.8. Increase use of environmentally appropriate and renewable energy sources in the framework of mechanism of «clean development" foreseen by GEC	Reduction of consumption of organic fuel for needs of power engineering and associated productive waste polluting environment. Decrease of negative impact of power engineering on conditions of life of population and environment.	Government of the KR, SEA, MEDIT, MTC, MEE, SSIPA, NAS, BLSA, SENM, NGOs	MTP (LTP)	SB, LBs, TNU, SF, IOBIS	EDS, ECI	I 4.9.a. Annual volumes of energy generation. I 4.9.b. Rate of use of organic fuel for needs of power engineering. I 4.9.c. % of environmentally appropriate and renewable energy sources in energy balance of the KR
4.9. Restrict pollution of environment caused by vehicles in the framework of the mechanism of «clean development" foreseen by GEC	Improvement of technical condition and maintenance of vehicles. Improvement of conditions of population life support and environment as a result of reduction of contaminants and industrial waste of transport sector	Government of the KR, MTC, MIA, MEDIT, MEE, MAWRPI, MLSGRD, NAS, SSIPA, SENM, NGOs	STP (LTP)	SB, SF, LNPF, IOBIS	EDS, ECI	I 4.10.a. Data of monitoring of emissions of vehicles exit gases. I 4.10.b. Annual volume of consumption of ethylized gasoline. I 4.10.c. Compliance of technical condition of vehicles with standard requirements.

National capacity building tasks	Expected results	Executors and partners	Index of mergency of actions	Sources of financing		Indicators of efficiency of the expected results
				Internal	External	
1	2	3	4	5	6	7
5.1. Improve educational programs of secondary educational establishments on the ecological topic within the context of ideology of sustainable development and reflection of GEC requirements	Adoption and introduction of new educational programs Improvement of the quality of preparation of experts of ecological profile Creation of new jobs for experts of ecological profile Formation of sustainable ideas on the necessity of environment conservation and rational nature management among the young generation.	ME, MEE, SSIPA NAS, MH, NGOs, SENM	MTP (LTP)	SB, RNPF, IOBIS	EDS	И 5.1. a. Resolution of the Government of the KR “On measures for development of ecological education. И 5.1. b. Number of new and improved programs. И 5.1. в. Number of hours in a curricular on the ecological topic in the programs of secondary and higher educational establishments. И 5.1. c. Correspondence of educational programs to the provisions of ideology and sustainable development and GEC. И 5.1. d. Number (%) of the trained contingent who received jobs in accordance with ecological specialization

5.2. Develop and disseminate a set of educational, reference, methodological, popular literature and video materials on ecological topic including GEC provisions.	Publication of a special set literature and video materials on the ecological topic. Raising of public and experts about vital ecological problems.	ME, SSIPA, MEE, NAS, MH, MJ, BLSA, NGO	STP (LTP)	SB, RNFP, IOBIS	EDS, ECI	И 5.2. a. Number of published literature and video materials И 5.2. б. Number (%) of users and population got access to the new publications. И 5.2. в. Compliance of data in publications that are actual of environmental issues of the KR
5.3. Expand and improve the programs of preparation and upgrading qualification of personnel of managerial bodies and subjects of nature management participating in ecological activity	Adoption and introduction of programs for preparation and upgrading qualification of experts. Increasing efficiency of management and practical results in ecological activity and nature management	ME, SSIPA, MEE, MAWRPI, SFS, SEA, MH, SGMRA, BLSA, MLSP, NAS, NGO	STP (LTP)	SB, LBs, RNFP, LNPF IOBIS	EDS	И 5.3. a. Orders of ministries and departments on approval of improved programs. И 5.3. б. Number of trained specialists.
5.4. Carry out development of regular national reports about the condition of the environment and natural resources management in the KR within the context of GEC requirements	Regular publication of national reports. Ensuring transparency of information about the ecological situation and nature resources management in the KR	MEE, SGMRA, NAS, NSC, MH, NGO	MTP (LTP)	SB, RNFP, IOBIS	EDS	И 5.4. a. Regularity of report development and publications. И 5.4. б. Authenticity of reports that provide an adequate environmental situation and nature management data of the KR

5.5. Develop a sustainable basis for provision the population with the information through Mass Media, Internet, national and local information networks in the content of GEC requirements	Creation of permanent columns, cycles of publications and programs in mass media and in special internet sites on the ecological topics. Raising public awareness about vital ecological problems	MEE, ME, MLSP, SCTSYP, SGMRA, MH, NAS , NGO, BLSA, SCA, SGMRA, SENM, National Information Agencies	STP (LTP)	RNPF, LNPF, IOBIS	EDS	I 5.5. a. Number of publications on environmental issues. I 5.5. b. Number of (%) population who have an access to ecological information through Mass Media and Internet. I 5.5. c. Data of sociological interviews on environmental web-sites usage ratings. I 5.5. d. Number of special sites users
5.6. Enabling access of the population and subjects of nature management to «know how" and other information enhancing introduction of energy saving and low waste ecologically safe technologies and technical means.	Formation of the database of «know how", progressive technologies, technical means and so on enhancing resources saving and rational nature management. Increasing of efficiency of nature resources management	MEE, MAWRPI, SFS, MEDIT, MTC, SEA, MH, ME, MLSP, MLSGRD, SSIPA, SGMRA, SACC, SCA, NAS, NGO, BLSA, SENM	STP (LTP)	SB, LB, SF, RNFP, LNPF, IOBIS	EDS, SB	I 5.6. a. Volume of technological and other information distribution. I 5.6. b. Number of information users. I 5.6. c. Economic and social effects from implementation of new technologies
5.7. Organize a network of territorial consultative sites, providing legal, informational, marketing and intermediary support to ecological activity of local communities and business circles	Development of the activity of the sector of professional consultative services to the population and subjects of nature management. Increasing efficiency of ecological activity and nature management as a result of development of consultative and informational services	MLSGRD, MJ, BLSA, MLSP, MEE. SSIPA, NAS, NGO, SENM	MTP (LTP)	SB, LB, IOBIS	EDS, ECI	I 5.7. a. Number of consulting centers. I 5.7. b. Number of consulting centers' users. I 5.7. c. Volume of Consulting Center services.

STRATEGIC DIRECTION 6. IMPROVING NATURAL RESOURCES MONITORING

Tasks of national capacity building	Expected results	Responsible executors and partners	Actions urgency indexes	Sources of financing		Indicators of effectiveness of expected results
				Internal	External	
1	2	3	4	5	6	7
6.1. Improve the legislative, methodological, and organizational framework of implementing environmental, sanitary and biodiversity monitoring	Approval and implementation of by-laws and technical regulations to carry out monitoring. Increased effectiveness of control over the state and use of natural resources	Government of the KR, MEE, MH, MAWRPI, SFS, NSC, MEDIT, SGMRA, SSIPA, NISM, SCA, SEA, BLSA,NAS, NGOs	STP (LTP)	SB, LBs, TNU, SF, RNPF	EDS	I 6.1.a. Regulation of the Government of the KR on measures providing effective environmental, sanitary and biological monitoring. I 6.1.b. Compliance of the results of monitoring with national and international standards.
6.2. Restore the number of observation stations and monitoring posts up to the scientifically justified indicators	Provision of complete and reliable monitoring data.	MEE, MAWRPI, SFS, SGMRA, SEA, MH, NISM, SCA, SSIPA, BLSA	STP (LTP)	SB, LBs, TNU, SF, RNPF, LNPF	EDS, ECI	I 6.2.a. Number of stations and posts. I 6.2.b. Compliance of the location and number of stations and posts with scientifically justified norms I 6.2.c. Number (%) of sources of pollution and other threats covered by monitoring and environmental audit systems.

6.3. Modernize the technical condition of stations, posts, chemical and bacteriological and other laboratories, computing and analytical centres, transportation links of energy supply and communication, and other elements of the monitoring infrastructure	Provision of complete, reliable and efficient collection, processing and distribution of monitoring data.	MEE, MAWRPI, SFS, SGMRA, SEA, SCA, MH, MEDIT, SSIPA, BLSA, NAS, NGOs	STP (LTP)	SB, LBs, TNU, SF, IOBIS RNPF, LNPF	EDS, ECI	I 6.3.a. Data on the inventory, technical passports and certification of equipment of monitoring infrastructure objects. I 6.3.b. Compliance of indicators of the technical state of monitoring objects with standard requirements.
6.4. Improve the system of state and departmental statistics and national database on the use of natural resources in implementing nature conservation activity.	Approval and implementation of by-laws and technical regulations for keeping state and departmental statistics and a national database of environmental information. Complete and reliable statistics for assessing situations and taking management decisions. Provision of free access to national environmental information.	Government of the KR, NSC, MEE, MEDIT, SSIPA, NCA, MAWRPI, SFS, MH, SEA, MTC, State Register, SGMRA, NAS, NGOs	STP (LTP)	SB, LBs	EDS	I 6.4.a. Regulation of the Government of the KR on measures to develop national statistics and a national base of environmental information. I 6.4.b. Indicators of the state of the environment and the use of natural resources covered by statistical systems and national environmental database. I 6.4. c. Number and % of subjects of nature management covered by the statistical system. I 6.4.d. Number (%) of users of the database. I 6.4.e. Compliance of indicators of the database with the standard requirements and requests of consumers

6.5. Improve the system of effective notification about emergencies threatening the population, civil and industrial objects, and the environment	Implementation of a modernized system of effective notification. Prevention of damage due to timely notification of emergencies.	Government of the KR, MEE, MTC, MLSP, SCA, MLSGRD, MH, BLSA, NGOs	STP (LTP)	SB, LBs, RNPF, LNPF	EDS	I 6.6.a. Regulation of the Government of the KR on measures to give effective notification of emergencies. I 6.6.b. Number (%) of the population covered by the effective notification system. I 6.6.c. Compliance of technical and organizational base of the system of effective notification with the qualifying standards.

Aarhus Convention – Convention of the European Economic Commission on access to information and public participation in the process of taking decisions and access to the judiciary on environmental issues. The Convention was signed on April 25th 1998 in Aarhus, Denmark and came into force on October 30th 2001.

Adaptation – the reaction of a complete ecosystem, supporting functional sustainability of changes in environmental conditions that appeared as a result of the evolution of organisms' adjustment, expressed as a change in their external and internal properties; any adjustment of an organ, function or organism in a broader sense – a system or process changing the conditions of the environment or level of development of a society.

Acclimatization – the adjustment of living organisms to changes in the environment, literally – to a change of climate.

Anthropogenic contamination (manmade) – contamination resulting from the impact of manmade activity.

Arid climate – a dry climate with high air temperatures, light precipitation and mainly typical of desert and semi-desert zones.

Biological diversity – the sum of all biological species living within the limits of a certain ecosystem, territory, region or planet. From the point of view of environmental conservation biological diversity acts as a taxonomic index of a biosphere.

Biocenosis (synonym for a biological community) – the sum of animals, plants, fungi and micro organisms, inhabiting a certain plot of land or water reservoir, having a certain species composition and established set of relationships between them and the environment. The sum of plants being a part of the biocenosis composition is called phytocenosis.

Biological Relics – species of plants and animals being flora and fauna surviving from previous epochs.

Biological yield – natural or manmade reproduction of biomass of plants, microorganisms or animals, usually expressed in unit mass of annual yield per square unit of area or unit of water or soil volume.

Capacity building – set of activities aimed at increasing the ability of governance bodies, civil society and the entire state system to take and implement decisions and perform functions in the most effective, reasonable and sustainable way. Capacity building does not create new potential but re-distributes and implements existing and unused possibilities.

Contaminant (s) - a polluting substance, or any natural or manmade chemical or biological matter that has got into a certain environment or has appeared in it in amounts exceeding natural background amounts and violating its natural condition.

Convention - an international agreement establishing the mutual rights and obligations of states, as a rule, in a specific area.

Decentralization – transfer of governance functions from central to local authorities, expansion of the circle of authorities of subordinate governance bodies from superior bodies of power.

[22] Definitions of terms in the glossary are given as defined by the GEF and can differ from encyclopedia and other interpretations.

Desertification – degradation of land in dry, semi-dry and dry sub-humid areas resulting from the impact of various factors, including changes in climate and manmade activity.

Donor – creditor issuing a loan on beneficial terms or free of charge with the purpose of rendering financial assistance.

Ecology – the science of studying the organization and functioning of biological species, their communities, eco systems, biocenosis and biosphere with regard to their inter-relation. Modern ecology also studies the problems of the interaction between Man and the biosphere.

Ecological safety – protecting the natural environment and living conditions of the population from the possible negative impacts of business and other activities, natural and manmade emergencies and their consequences. Determined by a set of indices, ensuring a sustainable ecological balance on Earth and in any of its regions at the level, at which physically, socially, economically, technically and politically mankind can survive.

Ecological system – the natural system, in which living organisms and their habitat are combined into a single functional whole through metabolism and energy exchange, cause-effect interactions and dependency on its ecological elements.

Endems, endemic species – species of animals and plants, limited in their expansion to a relatively small geographical area, which cannot be found anywhere else.

Extensive exploitation of natural resources – activity, which is connected with expanding the use of natural resources.

Fauna – historically established total of animal species inhabiting a certain territory.

Firn – solid, grainy snow, formed on glaciers and mountains above the snow line as a result of pressure from higher layers, surface melting and secondary freezing, penetrating into the depths. Under the pressure of higher layers it can turn into a solid mass of ice.

Flora – historically established total of the plant species growing on a certain territory.

Geo botanic survey – studying species of vegetation and their space combinations on a certain area.

Geo ecology – a practical section of ecology, which deals with studying regional and global changes in environment elements caused by anthropogenic impact, in applied practice the subject of geo ecology studies are eco systems and their integral parts: soil, surface and underground water, close to earth atmosphere and rocks.

Greenhouse effect – gaseous atmosphere elements of natural and anthropogenic origin, which absorb and reflect infrared radiation, promoting the development of a greenhouse effect and global warming. Among them – carbon dioxide, methane, nitrogen trioxide, hydro-fluorocarbons (HFC)carbon fluoride and sulphur hex fluoride.

Hydrologic regime – natural changes in water resource conditions by time (level and water discharge of glaciers, water reservoirs and so on.), brought about to the natural and climatic conditions of a water basin by the impact of anthropogenic activities.

Hydrosphere – all water objects on Earth: oceans, seas, lakes, rivers, swamps, underground water, glaciers and snow cover.

Individual level of capacity building – characteristics of set opinions and models of persons or groups' behavior by means of transferring knowledge and forming skills in the process of education. It includes measures to increase awareness, qualification level and enhance human resources participation in conducted activities through changing governance methods, motivation, attitude to work and increasing the level of responsibility and reporting.

Infrastructure – the complex of companies, organizations, constructions, communications, technical means and other things providing living conditions for a society and the functioning of the economy and the social sector.

Integrated approach – a systematic approach, where all the processes and events take into consideration relations between them.

Institutional policy – state policy aimed at forming new and eliminating old and transforming the exiting, labour, financial, social and other economic institutions.

Institutional level of capacity building - characteristics of the consolidated efficiency of governance bodies and their functional capacities and also ability to adjust to changes. Apart from improving the material and technical base it envisions optimizing tasks, structures, responsibilities and duties, changing procedures and relations and the re-employment of labor resources.

Kyoto Protocol – Protocol to the United Nations Framework Convention on Climate Change signed in December 1997 that establishes the timeframes and methods for reducing emissions of six greenhouse gases for industrially developed countries for the period of 2008-2012 against the level of 1990.

Land degradation – decrease or loss of biological and economic productivity of land, dry and irrigated plough land, pastures, forests and so on) as a result of land management or the impact of one or several natural processes, including those connected with wind and water erosion of soil; degradation of physical, chemical and biological soil characteristics or loss of natural vegetative cover.

Land management – land use according to the procedure laid down by the law.

Landscape – relatively homogeneous territory having regularities of geological composition, relief form, hydrologic conditions, microclimate, biocenosis and soil. The lowest category of geographical biocenosis and soil zoning.

Local community - the population of a village, town or city united by common interests in addressing issues of local importance.

Melioration - a system of organizational, business and technical activities aimed at improving unfavourable hydrological, soil and other conditions of land to manage it in the most effective way.

Monitoring the environment - a system of long-term observations, assessment, control and forecasting the condition of the environment and manmade objects.

Natural contamination – contamination being a result of natural reasons.

Natural monuments – unique natural objects having scientific, historical, cultural, educational and aesthetic importance (waterfalls, geological outcrops, unique trees and so on), protected by the state.

Natural resources – elements of nature used by Man, including mineral, biological (flora and fauna), land, climatic and water resources.

Nature management – systematic and targeted regulation of the conditions and use of natural resources. An area of public and industrial activity aimed at meeting the needs of people with the help of natural resources, scientific nature management studies the principles of the rational use of natural resources, which includes studying the anthropogenic impact on nature and its consequences for Man.

Non-traditional renewable sources of energy (NTRSE) are natural resources that can be used on a large scale, without the risk of decreasing the volume of resources. This group includes wind, sun, bioenergy and geothermal energy sources.

Non-waste technology – an industrial process ensuring minimum loss of consumed natural resources with maximum economic efficiency. Ensures industrial output or part of it is gained without waste or with its subsequent or repeated utilization.

Pastures – land areas with grass vegetation used for grazing animals. They are split into natural and sown or artificial (cultivated) pastures.

Pesticides – chemicals to combat weeds (herbicides), pests (insecticides, acaricides, pesticides and others) and diseases (fungicides, bactericides and others) of agricultural plants. The majority of pesticides are synthetic, organic substances.

Population – the total number of individuals of one biological type, occupying a certain area and reproducing over a large number of generations. In modern biology, population is considered as an elementary unit of the process of evolution, able to react to changes in the environment with a reorganization of its gene pool.

Protected area - an area protected by law (land, area of water), within the limits of which certain types of business activity are prohibited in order to protect the landscape, soil flora and fauna.

Phyto business – entrepreneurial activity connected with the collection and subsequent use of medical herbs.

Ratification – adoption by a supreme body of state power of an international treaty or convention signed by an authorized representative of the state. When ratifying a special document – a ratification certificate - is signed.

Red Books – official publications containing the descriptions and state of endangered animals and plants. Includes a list of measures aimed at their conservation and increasing their numbers. The World Nature Conservation Union (WNCU) publishes the International Red Book.

Reserve - an area protected by law (land, area of water), within the limits of which any type of business activity is prohibited. Reserves are set up in order to preserve biodiversity, natural systems and monitor natural processes.

Reservoir and drainage network – engineering network designed to transform wetlands into fertile land in order to grow high yield agricultural crops.

Resource saving technology – general definition of technologies, in which industrial process are enabled with the minimum consumption of energy and basic raw material consumption, additional materials and so on.

Soil erosion – destruction of the upper, most fertile layers of soil as a result of the influence of water, wind and anthropogenic activity.

Species – main structural and classification (taxonomic) unit within the system of living organisms, the total population of animals able to interbreed and have fertile descendants, having a series of common morph-physiological peculiarities, inhabiting a certain natural habitat, separate from others unable to interbreed under natural conditions.

Stakeholder – an interested party, interested participant, partner.

State national park – an area protected by law (land, area of water), within the limits of which business and nature conservation activities are combined. It is organized with the purpose of conserving natural complexes, having special ecological, historical and aesthetic value due to a favorable combination of natural and cultural landscapes and its utilization for recreational, educational, scientific and cultural purposes, has a special management system.

Sustainable development – gradual development of society, where the needs of the current generation are met without damaging the possibilities for future generations of people. Sustainable development involves long-term sustainable economic growth, not leading to degradation of the environment.

Synergy - means the combined result of coordinated efforts performed in various directions in order to achieve common goals, which exceeds the total effect of those efforts if they had been performed independently.

System level - of capacity building is a characteristic of a set of political, economic, legal and control mechanisms, within the framework of which separate institutions and citizens act.

United Nations Convention on Biodiversity was signed by Governments at the Conference in Rio de Janeiro in 1992 with the purpose of preventing the worldwide reduction of biological diversity, ensuring sustainable management of its elements and on a fair and equitable basis to jointly receive the benefits from using genetic resources.

United Nations Convention to Combat Desertification /Degradation of land, based on a decision of the United Nations Conference on Environment and Development held in Rio de Janeiro in 1992. The main goal of the conference was to prevent land degradation and combat land desertification.

United Nations Framework Convention on Climate Change – was adopted in 1992 in Rio de Janeiro and came into force in March 1994. The Convention defines the general principles of countries' activities on the problem of climate change but it does not contain quantitative obligations, for which a separate document – the Kyoto protocol, was developed.

Waste – unusable for production types of raw materials, non-consumable remnants left over from technological processes and day-to-day living activities. Solid, liquid and gas substances and energy not subject to recycling in production and consumption.

Waste water – water, which was used in industry, agriculture or by consumers and disposed of after use. It is split into industrial, agricultural, and public (contaminated with physiological, consumer waste) and atmospheric (storm, rain, snowmelt) waste water.

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ANNEX 1

CONSOLIDATED ANALYSIS OF THE CROSS-CUTTING OBLIGATIONS UNDER THREE GLOBAL ENVIRONMENTAL CONVENTIONS AT INTERNATIONAL AND NATIONAL LEVELS

№	International level	National level	Corresponding articles		
			CBD	FCCC	CCD
1.	Developing the basic principles of National Strategies and establishing priorities within the frameworks of sustainable development	Developing the National Strategy and Action Plan for implementing global ecological conventions	6-a, c	4-1c	5-c, 10
2.	Creating the legislative base for implementing conventions implementation	Improving the national nature conservation legislative and normative base	8-k	Intro-duction	5-f
3.	Conducting scientific research	Supporting scientific research into convention topics	12-c	5	17, 19-c
4.	Development, application and dissemination of new technologies	Development and introduction of resource saving, ecologically clean and innovative technologies	16	4-1g, 1c	5 (in attach. V)
5.	Promoting rational management of natural resources and sustainable development	State stimulation of measures aimed at the sustainable management, conservation and reproduction of natural resources	Attach. 10-a,в,c; 11-c; 8-j	Attach. 3-4	Attach. 10-2a, 4
6.	Impact assessment and minimizing unfavourable consequences	Taking into account and assessing the impact of unfavourable consequences on the environment in state planning and management	Attach. 10-a,b,c; 11-c; 8-j	Attach. 5-a, в, c	Attach. 16, 17-1c, 1d
7.	Promoting the utilization of the existing bi-lateral and multi-lateral financial mechanisms and agreements	Creating a favourable investment climate to carry out activities aimed at implementing conventions	21	4-1; 7	21
8.	Conducting environmental monitoring and creating a database	Developing and conducting national monitoring and creating a database	7	5	16
9.	Cooperating in the exchange of scientific, technological, technical and social and economic information	Cooperating and exchanging experience at national level, creating an information database	17	4-1h	16

10.	Cooperation in the area of education, personnel training, informing the population about the conventions, encouraging the participation of the public and in particular, women and young people	Training scientists, education, informing and disseminating information, involving the public, including, young people and women in implementing the provisions of global conventions	13, 12a	6	19, 5d
11.	Regular reporting and assessments of conventions	Expanding the ecological element in national reporting and information support in preparing reports	26	12	26
12.	Creating a favourable environment for international cooperation and the exchange of information	Encouraging cooperation and creating the conditions and mechanisms for information exchange	17	4-1h	16

ANNEX 2.

LIST OF THE MAIN CURRENT LEGISLATIVE ACTS OF THE KYRGYZ REPUBLIC, REGULATING THE CONDITIONS OF NATURAL RESOURCES MANAGEMENT AND ENVIRONMENTAL CONSERVATION

№ п/п	Name of the legislative act	Characteristics of the legislation
1.	Constitution of the KR (Article 35)	Declares the right of citizens of the KR to an environment favourable for life and health
2.	Law of the KR On Environmental Conservation	Being a comprehensive fundamental legislative act it establishes the legal basis for environment conservation and regulates the conditions of natural resources management. The law regulates relationships between public associations and various state structures, their rights and obligations and stipulates the right of each citizen or organization to access information about the environment existing in state bodies.
3.	Law of the KR On Specially Protected Areas	Regulates relationships in the area of the organization, use and protection of specially protected nature areas in order to preserve unique natural systems and objects, remarkable natural monuments, flora and fauna genetic fund and the study of natural processes in the biosphere and control over changes in its condition.
4.	Law of the KR On Biosphere areas in the KR	Regulates the legal status of specially protected nature areas and establishing for them a special regime for conservation and management at national level.
5.	Code On Forestry Resources of the KR	Establishes the legal base for the rational use, conservation and reproduction of forests and their increased ecological and resource capacity
6.	Law of the KR On the Protection of Free Air	Is aimed at protecting free air, preventing and decreasing hazardous physical impacts on the atmosphere, causing unfavourable consequences for the population and the environment and also ensuring national ecological safety.
7.	Land Code of the KR	Is the main legal instrument for regulating land fund management, preserving the fertility of land and protecting soil from degradation processes
8.	Water Code of the KR	Regulates relationships in the area of water resources (water) management and preservation, prevention of the ecologically hazardous impact of business and other activity on water objects and facilities and also measures to improve their condition, strengthening legislation in the area of water relations.

9.	Law of the KR On land management for agricultural purposes	Regulates legal relations in agricultural purpose land management in order to ensure efficient and safe land management and creates the legal basis for these relationships through due strengthening of relevant laws and regulations.
10.	Law of the KR On Ecological Expertise	Regulates legal relations in the area of ecological expertise and is aimed at exercising the constitutional right of citizens to a favourable environment by means of preventing negative ecological consequences arising as a result of carrying out business and other activity and is based on relevant provisions of the Constitution and Law of the KR On Environmental Conservation and other normative legislative acts adopted in accordance with them.
11.	Law of the KR On Fauna	Regulates a set of relationships related to wild life conservation and their habitat and legislative, organizational and economic mechanisms of fauna management for various purposes.
12.	Law of the KR On Flora conservation and management	Regulates a set of relationships connected with flora conservation and its rational management in Kyrgyzstan.
13.	Law of the KR On Water Users' Public Associations	Determines the legal status, organizational basis for creating water users' public associations and their activity as non-commercial organizations to enable the exploitation and maintenance of irrigation systems in rural areas in the public interest.
14.	Law of the KR On Fisheries	Regulates the legislative, economic and organizational base of fisheries in order to preserve and increase fish stocks, increasing fish breeding in reservoirs, ponds and other water objects and their rational management.
15.	Law of the KR On the Radioactive Safety of the Population	Determines legal relationships in the area of ensuring radioactive safety of the population and protection of the environment from hazardous sources of ionizing emissions.
16.	Law of the KR On Minerals	Regulates relationships arising in the course of minerals management between states and state bodies, individuals and legal entities. The law sets up norms in the form of a set of conditions for minerals management and preservation with regard to land, water and forestry relationships, relationships in the course of the management and preservation of flora and fauna, free air and so on.

Other legislative acts are indirectly connected with legal regulations in the area of environmental conservation, rational nature management and implementation of international obligations		
17.	Law of the KR On Guarantees and Freedom of Access to Information	Regulates the main legal, economic and organizational relationships, necessary for the development of computerization in the KR. Its goal is the creation of favourable conditions for meeting the needs of citizens', establishments, organizations and public bodies for information based on the formation of a modern information infrastructure and its integration into international information networks and systems.
18.	Law of the KR On Computerization	Determines the main principles of organizing and regulating the business activity of heating and energy companies irrespective of their form of ownership.
19.	Law of the KR On Energy	Establishes the principles of organizing local power at the level of administrative and area units, determines the role of local government and local state administration bodies in exercising public power, stipulates the organizational and legal basis of their activity in managing matters of local significance, including nature conservation activity through representative and executive bodies of power and also through the indirect participation of citizens.
20.	Law of the KR On Local Government and Local State Administration	Regulates the mechanisms for forming republican and local budgets.
21.	Law of the KR On the Main Principles of Budget Law	Regulates legislative and organizational relationships in the area of comprehensive development of education in the KR.
22.	Law of the KR On Education	Regulates relationships connected with the conservation, management and development of the Issyk-kul ecological and economic system
23.	Law of the KR On Sustainable development of the Issyk-kul ecological and economic system	Regulates relationships connected with the conservation, management and development of the Issyk-kul ecological and economic system
24.	Administrative Code of the KR	Establishes administrative responsibility of legal entities and individuals for violating the existing, including nature conservation, legislation.
25.	Criminal Code of the KR	Establishes criminal responsibility of officials and individuals for grave violations of the existing, including nature conservation, legislation.

RESULTS OF THE SOCIOLOGICAL SURVEY OF DIALECTIC ON LTD. CONDUCTED WITHIN THE NCSA PROJECT (OCTOBER-DECEMBER 2004) FOR THE ANALYSIS OF CROSS-SECTORAL INTERACTION IN GEC IMPLEMENTATION

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INTRODUCTION

In order to implement its obligations under Global Environmental Conventions (GEC), the Kyrgyz Republic is engaged in capacity building. This report provides the results of a survey of the factors hindering and promoting the implementation of these obligations within the decision making system at national level and also the factors enhancing public involvement in taking decisions related to nature resources management. The framework for the implementation of obligations under GEC, which includes legislative and normative documents, cultural and mental aspects, subjectivity awareness and motivation positions, are the key subjects of this research.

Having ratified the Conventions the state becomes the main partner in the political and management process of implementing obligations. At the same time other important participants are being formed in the country: civil society, which includes ecological and other non-governmental organizations, academic circles, local communities and private business representatives and also international organizations and development agencies carrying out their activity in Kyrgyzstan. The survey results, which identified the peculiarities of positions, responsibilities and authorities of the above-mentioned participants, assess the level of subjectivity of various processes and also identify the spectrum of individual and institutional motivations and stakeholders' competitiveness in implementing convention obligations. Attracting various categories of stakeholders to implement these obligations will require from the state important activities primarily aimed at optimizing their interaction in order to achieve synergies in implementing the country's obligations under GEC.

Justification of the approaches to addressing this problem for the subsequent development of a Capacity Building Strategic Action Plan was the main task of the survey, conducted by Dialect ICON Ltd, the results of which are presented in this report.

PART 1 – SURVEY METHODOLOGY AND DATA COLLECTION

1.1. SURVEY GOAL:

Determine the factors hindering or promoting the implementation of obligations under GEC at national level and also factors justifying the involvement of the population in decision making to implement the conventions.

Objectives:

- Study a logical way for decision-making stakeholders to make decisions regarding the implementation of obligations under GEC.
- Study the difference in participants' understanding of the concept of the need for local communities' involvement in the decision-making system to implement conventions.
- Identify subjective experts' opinions on the factors promoting or hindering the implementation of obligations at system, individual and institutional levels.
- Study the character of the inflow of information on the implementation of obligations under GEC among the sectors and the vertical power structure.
- Define the role of communicative interaction among the participants as a factor of the impact on the efficiency of ecological activity management.
- Study experts' opinions and objective documents about the impact of incentives and benefits at system, institutional and individual levels and determine the level of stakeholders' involvement in implementing obligations under GEC.
- Study positive and negative experience in the system of taking and implementing decisions aimed at implementing conventions.
- Study the character and reasons for changes in the main participants' attitude towards nature and nature management technologies.
- Determine local communities' subjective understanding of costs and benefits of participating in implementing conventions.
- Develop recommendations on the synergies in implementing obligations under GEC.

1.2. SURVEY METHODOLOGICAL INSTRUMENTS

- Interviews with key decision-making persons in the system. 50 interviews were conducted with experts from ministries, agencies, international organizations, businesses and representatives of oblast and local communities. Additional data was collected from representatives of all oblast nature conservation structures during the Global Ecological Conventions: interaction at national level Workshop (October 18 – 20 2004) in Bishkek.- Questioning local residents. In local communities, sampling interviewers filled in 100 forms in the course of trips to the villages of Jany-Pahta in the Sokuluk rayon, Tuz in the Issyk-Ata rayon of Chui oblast, Chelpek in the Ak-Sui rayon of Issyk-Kul oblast and Tovar-Say in the Ak-Say rayon of Jalalabat oblast. The following criteria were used in selecting villages: specificity of nature conditions and level of local communities' involvement in the processes of nature assets management within the framework of GEC implementation.
- Case studies. Case studies' data were gathered in the course of experts' interviews, communities representatives' questioning and focus group discussions. 7 cases were studied explaining various aspects of implementing GEC obligations in Kyrgyzstan. - Focus groups. Focus group discussions with representatives of ministries and agencies, international projects and programmes, non-governmental organizations, academic circles and businesses were conducted from November 1 – 5 2004.

From September 27th till November 18th 2004 initial data was collected for the survey based on the methodology developed by the DialectIKON group together with experts from the National capacity self-assessment for global environmental management Project. Part 2 – GEC implementation problems and priorities

PART 2 – PROBLEMS AND PRIORITIES IN GEC IMPLEMENTING

2.1. POLITICAL AND MANAGEMENT PROCESSES OF IMPLEMENTING OBLIGATIONS UNDER GEC AND NATURE ASSETS' MANAGEMENT: SUBJECTS AND PROBLEMS

Convention ratification: global and local contexts, participants in the process of implementing obligations

The development and promotion of the three global conventions onto the world political agenda were catalysed by the World Summit in Rio de Janeiro in 1992 and gave impetus to the formation of a new form of international environmental management.

The fundamental convention principles justified active institutional processes: Conferences of the parties, protocols, inter-government commissions and conventions on the global development processes of the new century's agenda, were organised.

In the course of the above-mentioned institutionalisation some global level participants were involved in the implementation of the conventions' requirements. Some of them enjoy the status of supranational structures and others represent international organizations (donor and non-governmental), such as GEF, WWF and IUCN; others – governments of developed countries and non-governmental organizations of some countries carrying out some nature conservation activities.

Nevertheless, in the Johannesburg memorandum it was stated that, "Though at the World Summit governments of various countries undertook obligations to curb the degradation of the environment and social poverty, in the last decade there have been no changes in the direction of those tendencies. On the contrary, the world is plunging more and more into poverty and ecological devastation in spite of the fact that some of the regions have become richer and richer. The world is careering headlong into big and small catastrophes as if nothing has happened. Northern countries have deviated from the "deal in Rio" and southern ones continue expressing inadequate interest in nature conservation problems"1.

Following Kyrgyzstan's ratification of three global conventions the country was actively included in international discussions about sustainable development and international nature management, in particular: biodiversity management, combating desertification and adapting activities due to climate change.

The political situation in Kyrgyzstan, which justified the ratification of global conventions, had a set of fundamental prerequisites. As can be seen from the interviews conducted with officials from ministries and executive power bodies of Kyrgyzstan, inclusion in the civilized world environment was done through adapting and adopting international legislation and supported the image of a state open to cooperation with the rest of the world etc.

Having ratified the conventions, the Government of Kyrgyzstan declared itself one of the main partners in the political and governance process of implementing obligations. Other stakeholders were formed to implement the obligations under conventions, namely civil society, which includes ecological and other non-governmental organizations, academic circles, local communities, private businesses and

[23] See. Zax, V. (2002) Memorandum to the World Summit on sustainable development, Justice in a fragile world, G.Bell Fund pages 11, 15

international organizations and development agencies working in the country.

The realities of Kyrgyzstan's development as a state following the rule of law at system level require the active development of legislation in the area of nature conservation and the majority of the normative base is not just declarative but also clearly reflects a symbolic procedure. This situation is, in many respects, typical of countries with transitional economies.

Apart from international agreements and conventions there is also real life and the activity of eco systems, which are all around us, which impact on the daily life of citizens and local communities. Their impact, through daily life, which includes the activity of programmes and projects aimed at implementing convention obligations, change the condition of the environment. Their informational reality is away from epochal global events: Summits and resolutions, conventions and conferences. Here the level of possibilities of each and every one of us is determined to a great extent by the quality of individual performance of norms adopted at system level. Dynamic processes are, in reality, clearly subject to economic calculations and pragmatic conclusions.

Thus, participants in the process of implementing convention obligations (existing and potential) at all levels – from global to country, regional and local, are based on specific logic and reality.

Conclusions

1. It is clear that one of the reasons for Kyrgyzstan's ratification of conventions was symbolic to support an image of a state open to cooperation with the rest of the world etc.
2. In Kyrgyzstan a set of stakeholders in the process of implementing the obligations under conventions was formed. Apart from the state they include civil society, being ecological and other non-governmental organizations, academic circles, local communities and private business. The major role in this process belongs to international organizations and development agencies working in the country.
3. Executors of the process of implementing obligations under conventions (existing and potential) – from global to country, regional and local are guided by the specific logic and reality into which they have been plunged.

Convention implementation: processes and subjects

The level of stakeholders' involvement in the processes of implementing obligations under conventions is based on the following peculiarities:

- Breadth of vision of the capacity for implementing obligations under conventions (not only material, but also non-material aspects, for instance: professional growth, synergies and their relationships, long-term vision and planning and establishing and maintaining partnership relations);
- Formulation of conceptual and strategic documents on this basis;
- Having authorities to implement at all levels of agencies and territories and transparency of the system of rights and responsibilities;
- Understanding barriers to and incentives for performing functions in implementing obligations;
- Calculating the risks and benefits of implementing obligations;
- Establishing mechanisms of vertical (inter-agency and territorial mechanisms) and horizontal interaction (inter-agency and inter-sector mechanisms) for implementing obligations.
- Having correct and timely information/access to communication spaces.

In studying the character and level of inclusion of various participants in the process of implementing obligations positional differences were discovered in understanding and the positions of each group of the main acting parties/people, which are the following:

- Differences in the understanding of who and how regulates the processes of convention

implementation in political and governance reality;
- Differences in understanding the object of conventions and nature conservation activity;
- Differences in understanding development.

2.2. THE GOVERMENT AS THE MAIN PARTICIPANT IN THE PROCESS OF GEC IMPLEMENTATION

The position of self-determination and regulation of the processes of implementing obligations

The first and most important group of participants in the name of the state is the system of sector and territorial governance, including institutions at various levels and a huge number of executors directly or indirectly involved in implementing obligations.

Conventions allocate the state the role of: 1) developing laws, norms and rules, 2) disseminating information about those rules, 3) arbitrating disputes and claims (especially when they are related to ownership rights), 4) controlling and sanctioning the implementation of norms and requirements and observing the "rules of the game". Those expectations are closely related to the vision of good governance. To what extent the state sector is ready to become a "good governor" can be an indicator of the positive capacity to implement obligations under GEC, but nevertheless not everything is determined by subjective factors.

It was discovered that some respondents from executive bodies of power do not have full information about the country's obligations under the ratified conventions and the exact delineation of functional responsibilities among the sectors. As a rule, those respondents belong to those agency structures, which were not defined in accordance with the legislation as executive agencies for the implementation of global conventions (UNCBD, UNCCD, UNFCCC).

For instance: a respondent from the National Institute for Standards and Metrology of the KR (formerly Gostandart) in response to the question about knowing the conventions and the country's obligations, gives the following answer: ***"It is easy to speak when you know the subject you were asked to talk about. We know very little about those conventions and that is why to answer whether we are involved or not is very difficult".***
Very often responsible officials in key convention beneficiary agencies also demonstrate a certain degree of unawareness about the issues directly connected with their professional activity.

As a rule, even in the main executive agencies responsible for convention implementation there is a narrow circle of experts, who take decisions and are "aware" and directly involved in implementing obligations but within the regime of "privatizing" those functional responsibilities. As an example we can give the opinion of a representative of one of the ministries: ***"We do not know anything about the conventions. We were given a programme on ecology, which we reviewed. In general this issue is not our business. That is why we did not pay special attention to it. We confirmed and supported what was written there. In general, who in the republic coordinates this? The Ministry of Ecology, isn't it? I personally did not see and read those three conventions. This issue is within the competence of the production management department".***

A respondent from the Hydro meteorological service also has little knowledge of any obligations:
"-We, being the Hydro meteorological service did not sign the convention on climate.
-Nevertheless, being a part of this Ministry did you distribute areas of responsibility for the implementation of convention obligations?
-I do not have this information.
-Have not you heard anything?
-I repeat that I do not have this information.

Probably the problem is not in drawbacks of communication in ministries horizontally though this aspect is quite important. To understand the logic and mechanisms of communication gaps both inside (being an economic sector – ministry or agency or territorial structures) and between the structures and also the reasons for active or formal involvement in the processes of implementing obligations enabled a comparison to be made of another situation and the position of public servants, identified in the course of the research.

In the course of the interview groups of experts and officials representing sectors and territorial bodies of power were discovered, who due to their official position, are not only well informed about the details of obligations under GEC, but also formally acknowledged full responsibility for certain aspects of implementing obligations. At the same time they considered their obligations as segmented and separated from real nature conservation activities to the extent that they are limited by their formal functional descriptions and more importantly, by their authorities.

Thus within the framework of nature assets management there are at least two tasks:

1. Organizing functional communications and assigning relevant authorities to specific executors inside agency structures and in the state inter-agency space.
2. Organizing a political communication space, where others apart from state sector representatives must be involved.

In political and management activity reality none of these tasks is implemented systematically and in full. Currently the country does not have an established system of clear normative directions regulating this organizational task. Executors inside state structures are guided by subjective understanding and traditional political and management practice.

Communication in the political space, which is accessible by all participants – actual and potential, is done randomly and unsystematically and the state being the leading participant in these processes does not undertake the function of organizing this communications space and its themes. It is proposed to conduct the main activity in this direction to increase capacity.

In the course of focus group discussions and interviews survey respondents more than once expressed this important problem in implementing convention obligations: ***contradictions in authorities, responsibilities and duties.*** These contradictions are the result of drawbacks in the legislation. i.e. at system level.

Contradictions in normative acts and various level regulations, lack of clear control over the adequacy of newly adopted norms, their compliance with earlier adopted legislation and changing nature and social conditions, are constant stumbling blocks to carrying out not only nature conservation activities, but also for implementing obligations under GEC. Many specific examples were given by representatives of the State Registry, Ministry of Agriculture, Water Resources and Processing Industry and territorial sub-branches of ministries and agencies (Case-study 6).

For instance: some agencies receive sanctioned authorities to exercise control over various nature management assets and local authorities in territories have official responsibility for the result of some nature management strategies. Frequently, in accordance with the law, one agency bears obligations and responsibility for preserving the biodiversity and condition of land and another agency performs the same functions in accordance with a lesser piece of legislation e.g. a Government resolution. There are many examples of similar contradictions and imbalances in authorities, duties and responsibilities in performing responsibilities by officials at various levels. Survey respondents did not simply mention contradictions but tried to find the reasons for such situations. Some believe that the reason lies in the weak responsibility and control of state structures, e.g. The Ministry of Justice or a parliamentary commission or civil society.

One of the leaders of an oblast nature conservation department considers the contradictions in the following way: ***"We are a controlling body for businesses. Before, as a state inspector I could go and inspect companies to see how they were using water and so on, but nowadays these functions are split. For instance: we cannot punish businesses or people for the incorrect use of water as we could before. This also relates to flora and fauna …***
I feel ashamed that I am the head of the nature conservation department. Ordinary people think I must protect all the environment, but now our hands are tied. Sometimes they call us and tell that us there is illegal tree felling and ask us to stop it and I have to tell them that there is another special service and they tell me: "How can you be called the nature preservation service?"
- Does that mean that if there is unsanctioned tree felling you cannot intervene and stop it?
- We can stop it in general but to do that we have to make calls, communicate and say that it is urgent and if they have time … I cannot put aside my work and occupy myself with that …"

Such contradictory legislation we believe, alienates public servants working in nature conservation from nature conservation goals and processes and bureaucratic governance has to be formally rationalized in order to secure its development and existence.

The bureaucratic structure of governance of an area and branch becomes self-perpetuating and requires resources to exist. Policy and governance are increasingly aimed not at minimizing human impact on biosphere and environmental conservation but on the strict observation of formal official duties and norms. Many respondents confirmed the correctness of this view about the interaction between sectors and agency structures designed to carry out nature conservation activities, in particular: implementing obligations under GEC. Some of the required resources are fought over by various executive agencies because the efficiency of nature conservation activity in the country is not the main criteria for assessing the activity of state structures. Some of them spoke about hidden and obvious struggles for resources between those agencies and structures both in the name of the structures and for individuals being a part of those organizations.

We can state that in Kyrgyzstan there are delineations of governance processes within the frameworks of ministries, agencies and other executive power structures of nature conservation goals and strategies of activities. Experts and decision takers to a certain extent are not part of of nature conservation activities and executors of obligations under global ecological conventions. In reality they are becoming more and more the subjects of some other process – the process of a bureaucratic struggle for resources as they state: "the transfer of authorities and responsibilities is turning into the division of material benefits".

For instance: one of the respondents, the leader of a big agency sub-branch believes that: ***"There exist the so called agency priorities or selfish agency interests. Narrow agency interests, which are called, "possible investments or grant assistance", for the right to own, control or regulate grant funds. As soon as those funds run out practically all activity ceases".*** A focus group discussion participant shares this point of view, as does an NGO academic participant: ***"A lot of time has passed since the UNCBD was signed but the main goals and tasks are still not understood by national experts. In reality the transfer of authorities and responsibilities is turning into the division of material benefits."***

That is why one and the same respondent can assess the duplication of functions differently: ***if they speak about another ministry there are requirements and calls to stop harmful practices but if they speak about their own agency this fact does not cause any indignation or actively change the situation.***

For instance: one of the leaders of the ministry stated that: ***"Now there exist two state bodies for nature conservation, the Ministry of Ecology and Emergencies and the State Forestry Service. This is not so much a separation but duplication of functions. In accordance with the law on nature conservation all functions must be performed by the Ministry of Ecology and Emergencies but the State Forestry Service also exercises control over wild animals. That means we do it in accordance with the law and they – in accordance with the Regulations.***

-Is it a barrier to implementing conventions?
No, it is not a barrier but it creates the situation when in accordance with the law one agency is appointed and the executor is another agency.
-Is there any duplication or separation among your internal sub-branches?
-To a certain extent there is but generally each of us is involved in deciding our own issues."

An analysis of subjective assessments and the situation in the area of the correlation of authorities, duties and responsibilities, identifies two contradicting logics. One is symbolic, that dominates in the country's ratification of the conventions and is narrowed down to writing reports and parties' participation in conferences, inter-parliamentary commissions and other inter-state forums, whilst the other reflects the actual political and governance processes in the country designated for biosphere conservation, addressing the problem of climate change and so on and can be described as a narrow, personal and pragmatic agency, when representatives of state structures, irrespective of their legal and public status differ only as seekers of privileges and benefits of various scales. The latter category of participants is extremely non-homogeneous. The difference is only in the content of the ideological "justification" of their pragmatism: some of them use the motivation of "caring about economic improvement and increasing people's standard of living" for their interests and activity, others try to explain it by using "caring about preserving our unique nature for future generations".

Although the specified logics are totally contradictory their interaction and closeness must be taken into account. When considering the UNITAR/GEF stages of institutionalising convention obligations into country mechanisms - ideology, conceptualisation, implementation, monitoring and science and education - it is clear that the symbolize the procedure of the first logic, i.e. "rhetorical strategy" and "economic" pragmatism, and "pragmatic demagogy" correlate with one another as different levels of convention institutionalisation on a global scale and at country policy level.

In "pragmatic demagogy" a nature conservation agency respondent sees objective reasons for his not confronting illegal tree felling and the destruction of flora and fauna in the area entrusted to him because the state has not given him any such authorities in addition to his task of environmental conservation. Within the framework of the logic the criticism of the activity aimed at UNCBD implementation expressed by another survey respondent, who is quite a responsible official, who has occupied high positions in nature conservation for decades and is personally responsible for implementing convention obligations, becomes clear.

Understanding the object of conventions

The most important motivation for behaviour and taking decisions is the level of understanding of the state structures' personnel of nature assets as subjects of conventions and nature conservation activity. The spectrum of such understanding by public servants is quite narrow:
The level of understanding of some of them is similar to an economic model because they understand nature values as market values. Representatives of this group have very little understanding of the real value of ecosystems.

For instance: one of the regional leaders of the country said: "In total in the oblast there are 834 thousand hectares of forest. This is great wealth! Contrary to expectations there has been no feedback from the forestry sector so far … For instance: last year in the oblast 16 thousand cubic metres of timber were harvested, 11 thousand cubic metres of which were sold as firewood. Thus, only 8 million soms were received from the forestry sector. Who bought the "firewood" at this extremely low price? If the same 11 thousand cubic metres had not been sold as firewood (the proposed option: sale at the price of commercial timber – author's remark), the forestry sector treasury would have received 24 million soms ..."

The existence of respondents' formal ecological education and specialised knowledge in the area of biology has little impact on their logic applied during the nature management decision-making process. For instance, an expert of a sub-branch of the MAWRPI, who has responsibility for fish biodiversity, being a biologist by education, believes that stocking a unique lake reserve does not bring risks either for people or nature itself: ***"It (government decision on granting economic status to the Chatkul Lake Reserve – authors' remark) will not do any harm. Where there is a reserve with protected Indian geese, fishermen do not go. This is a reserve. There is a strict ban there. I do not see any harm. On the contrary: the reserve will be used and people will have fish. This is most important and secondly lots of people will work there".***

The point of view of other public servants is close to the first position, which mythologizes nature and human interaction with nature. Using this logic they give the highest assessments to the condition of nature and the "humanity" of man, who traditionally lives in harmony with nature. Frequently mythology appeals to traditional ways of life.

For instance: a high-level official from the Ministry of Finance believes that: ***"You are concerned about hunting wild animals. I, for instance, grew up in a village and did not see that animals are killed without good reason. In mountain villages they kill wolves only when they represent a threat to sheep flocks… Kyrgyz people are heathens in their souls and any Kyrgyz who kills such animals makes nature angry and it takes its revenge – Kaibergen (a dark creature of the ancient Kyrgyz who protects nature –author's remark) and so on… There have been many cases when a hunter was buried by a mudflow and so on. I believe in it. The Kyrgyz have lived in peace with animals. Every year I go to the village to see my father and see that the number of trees is increasing".***

Another official from the Ministry of Emergencies only states the harmonized mentality of the Kyrgyz people: "In a larger sense each person must be an ecologist to some extent because he/she must think about protecting his/her environment. In the mentality (of Kyrgyz people – author's remark) it exists but currently due to poverty, this has become blunt but it still exists. For instance: for many centuries our ancestors used to say: ***"One must not throw waste into the water or on the land or cut down trees, but now when it is cold in their houses and the children are frozen, there is no coal and they have no alternative but to go out and cut down trees and use them as fuel. I believe that with an increase in the standard of living and development of the economy it will be restored".***

Public servants often draw romantic pictures of the ecological condition in our country and actively promote a policy of images. These public servants do not simply idealize the condition of nature in the country but draw stereotypically ideal pictures of an eco paradise, which we or some other countries similar to Kyrgyzstan, have. For instance: very frequently respondents referred to the image of Switzerland as a symbol of the purest, most ecologically prosperous tourism capital in the world and were quire seriously saying that Kyrgyzstan could become a second Switzerland.

One of the respondents, an official of the SFS, has the following idea about the ideal ecological environment: ***"Compared to the conditions of Central Asia and other Asian republics our republic can be compared with Switzerland and that is why it was necessary to ratify those three global conventions. The benefit is that through participating in the three conventions we will not only be addressing biodiversity issues but also poverty issues".***

The group of those who understand the essence of complicated and unique ecosystems is not numerous, and some of them are from ministries and agencies and territorial power structures, which are not really involved in implementing the obligations. For instance: an employee of the State Agency for Tourism, Sport and Youth Policy states that: ***"My point of view is that in the pursuit of money people can trample down and destroy what remains. If the number of tourists increases and is not regulated people will shout "hurrah" for the large number of tourists coming here, but nobody has seen the other side of it. That means we could easily trample down Son-Kul... There are of course bio toilets, showers and so***

on but no one looks beyond this to see how nature will be utilized, processed and so on. All that is left to take its course and it is like a time bomb … Let us be realistic: the interest of the state is to pursue certain economic benefits, which is important, but I believe that the main interest is in preserving all our nature wealth and historical and cultural inheritance for future generations."

As you can see the myths created by the first category of officials induces critical skepticism from their opponents. In particular, when assessing the unlimited future for mass tourism development in Kyrgyzstan and turning it into a tourist Mecca, a respondent from the State Agency for Tourism, Sport and Youth Policy mentioned that: *"It is necessary to be realistic. The world is huge and there are no less beautiful places, i.e. it is always necessary to deviate from geographical centrism and not to think that here is the centre of the earth and that all tourists do not eat and sleep thinking about how to get here".*

Conclusions:

1. There are several stakeholders' groups involved in implementing GEC obligations.. Their specificity is based on differences in:
   - Understanding of who and what regulate the processes of convention implementation in political and governance reality;
   - Understanding of the conventions and the object of nature conservation activity;
   - Understanding of development;
   - Understanding of their participation capacity.
2. Differences in positions lead to different activities and the inclusion of each stakeholder in the process of GEC implementation.
3. The state as a participant provides a broad spectrum of approaches and understanding – from economic centric to eco centric, from rhetorical statements to activity approach. The specificity of positions and understanding depend first of all on the existence or absence of the officially stated status of the key executing agency, which for a stakeholder is the main criteria for its involvement and responsibility for implementing obligations. The norms regulating their activity are not precisely defined, which hinders the integration of individual positions into the institutional whole.
4. The level of stakeholders' inclusion in the process of GEC implementation directly depends on the level of their awareness, which does not look adequate nowadays.
5. In the course of implementing convention obligations several core problems were created:
   - Distortions and contradictions in authorities, functional duties and responsibilities, which are especially evident at territorial level.
   - Some estrangement of participants representing political and governance reality from nature conservation processes and the domination of the logic and mechanisms of struggling for resources.
   - The formation of a competitive environment at all levels (system, institutional and individual) as a consequence of the struggle for resources.
6. When there is an array of various approaches among participants of political and governance activity, there is inter-penetration and closeness. The rhetorical strategy of an eco centric approach and eco centric pragmatism correlate with one another as different levels of country policy.
7. Among participants in the processes there is a contradiction in the assessments of and ideas about nature resources and their future development. Those for whom positive assessments of the condition of the nature environment dominate mention the limited supply and lack of renewability of resources and those who assess the condition as catastrophic for the environment nevertheless are more inclined to forecast positive development of the country as a whole.

2.3. CIVIL SOCIETY (LOCAL COMMUNITIES, NGOS, ACADEMIC COMMUNITY, BUSINESS SECTOR)

Civil sector involvement in nature management processes and the implementation of convention obligations in Kyrgyzstan has several categories: NGOs, academic community, business sector and local communities.

NGOs and the academic community as participants in the process

This category of stakeholders includes representatives of non-governmental organizations and the academic community. NGOs and the academic community representation offices in many respects are dependent on financing from international ecological foundations and organizations because the state only nominally finances scientific and research activity and in the NGO sector they do not practice state "social orders" with the relevant financial support. The academic community in the country consists of some consultants and experts and scientific research institutes (for instance: the Centre for Agrarian Sciences and Institutes of the National Academy of Sciences).

Ecological NGOs, which actively cooperate with research institutes within the framework of projects, include public associations of scientists in the area of ecology and form a financial buffer for the scientific and research community and institutes. Apart from that, ecological NGOs are mediators in the transfer of technologies for sustainable nature management among the countries of the "North" and "South" (educational workshops, training and publications).

The spectrum of political and governance orientation in the sphere of ecological NGOs is characterized by moderate ideas and positions. Among local ecologists a desire to remain as they are or appear unconnected to the "greens" and "anti-globalists" prevails and silently ecologists consider extreme eco centrism unacceptable.

According to some ecologists it is more important to build bridges between various groups of stakeholders and this is where NGOs see their mission.

Assessing system and institutional levels of regulating the processes of implementing obligations respondents in this category identify the problem of non-enforcement of laws in the country as a whole and failure to implement obligations under conventions in particular. Respondents connect this state of affairs with traditional normative and cultural prerequisites, preserved as a legacy from the former Soviet Union. According to the opinions of NGO sector representatives the legislation does not always work at system level and frequently unenforceable laws are adopted and at individual level law enforcement takes place in contradiction to normative directions: ***"...the principle of soviet production was the following: they always adopted nice laws, which were never applied. Violation of laws was the norm in the USSR". Speaking about the present respondents mentioned the existing laws, for instance: about mandatory ecological expertise, which practically does not work at all and in general strategic assessment of management decisions does not take place: "Now there is the same principle of unwillingness to live according to the law. We adopt laws in accordance with international rules and violate them the next day. This is the attitude to environmental protection".***

For NGO representatives balanced economic and ecological approaches look more unrealistic and demagogic. Respondents have a very critical attitude to the state being the lead participant in implementing obligations. The low level of staff capacity of state executors results in the non implementation of elementary GEC requirements, for instance: payment of membership fees for a focus group discussion (with NGO representatives) looks like the main stumbling block to implementing convention obligations: ***"The people dealing with these problems have low level qualifications and this is one of our biggest pains. We actually do not have the capacity or experts... What capacity can***

we speak about if the republic is not going to pay membership fees...” Some respondents mention the process of de-institutionalization, in particular, abolishing the authorities and status of the chief state ecological expert and formal activity of national coordinators in implementing conventions.

The overwhelming majority of respondents see the way out in the creation of a special supra-governmental structure to coordinate the activity of all stakeholders in implementing convention obligations: ***“It is very difficult to use synergies without a coordinating structure, but if the coordinating structure does not work within the framework of the three conventions and is not connected to the existing development programmes we will have no synergies”.***

According to respondents this structure must accumulate all the best experts’ efforts and has the functional task of coordinating and ensuring transparency of use of all the resources received by the country from various financial sources.

NGO representatives believe that no conditions have been created for their activity aimed at implementing obligations and on the contrary, barriers have been created because the state does not take any responsibility for the undertaken obligations.

Criticism of political and governance schemes in the area of nature conservation activity is the focus and even the “essence of existence” for numerous ecological NGOs. The civil sector, according to them, acts as a system of balances and checks.

NGOs and science: perception of conventions and nature preservation activity

According to some survey participants from the non-governmental sector, Kyrgyzstan is not completely ready to be involved in the “global family”, because implementing conventions is sabotaged through the adoption of contradictory laws, deliberately conflicting with the international norms ratified by the country. With regard to global ecological conventions regrets were expressed about the fact that stipulated obligations are not expressed in the form of instruments for implementation. That is because each country is assumed to select its own regime as to how to implement conventions, which will correspond to the interests and level of development of that country. The latter circumstance generates some respondents’ opinions because of:

- The different status of countries participating in the global nature conservation process, which accordingly determine the various impacts and political and economic approaches of the world’s strong and rich countries in signing conventions. In some cases it is expressed by a refusal to ratify international documents and norms (for instance: the Kyoto protocol) due to their conflicting with national economic interests.
- The importance of a unified approach to nature management for all countries, which is the main value of the global conventions ratified by Kyrgyzstan.

There exists a certain polarity of We-They stereotypes in respondents’ perceptions. For instance: from the point of view of institutional mechanisms the state has not reached the optimum governance structure, which would enable the correlation of competing interests of agencies and organizations and efficiently exercised rights, authorities and responsibilities.

At the same time some academic circles’ representatives have a perception that in capitalist countries, for instance in the USA, efforts to implement convention obligations are efficient because they are in the “national interests of the country”. It comes from the logic of some NGO representatives that the economic centric approach, in the end, promotes the development of nature conservation technologies and also the development of environmental management technologies, in particular: the development of effective motivation and incentives for carrying out nature conservation activities and programmes.

Local communities

Local communities and self-governance bodies are the people who live close to nature resources and assets. Both methods of nature resource management and carrying out conservation activities to protect nature assets from negative anthropogenic impact depend on local communities.
Local communities enjoy a double status: they represent the most important part of civil society and at the same time, work the area.

Studying the status of the Alliance of Mountain Communities of Central Asia and the local communities survey showed that the following are the most important tendencies in their development:

1. Strengthening self-organization and integration in the local community both at local and regional levels. Associated groups from local communities are formulating new approaches to participating in decision-making and nature assets management;
2. Increasing the level of inclusion in management schemes and processes promotes capacity growth and lobbying interests and needs at local level;
3. Increased activity in nature assets management contradicts traditional and typical assessments of this group of nature resources being finite. In order to include the population in nature resources management positive experience of synergies has been established in the cooperation between some stakeholders (international organizations: CAMP/Swiss Development Office, GTZ and others) in implementing convention obligations with broad involvement of local communities based on partnership principles.

Businesses

Within the survey's framework the opinions of business sector representatives, businesses who either represent ecologically dangerous production companies (for instance: the Bishkek Central Heating Plant. Tansuu ltd, Kumtor Operating Company), or are connected with the development of ecological technologies (for instance: Bishkek Demonstration Zone Ltd., Kumtor Operating Company), were studied.

Thus, the survey sampling included businesses of various types and sizes (mining, processing, consulting, large-scale, small-scale etc.) and by types of ownership (private, joint, joint stock).

Business representatives, as a rule, associate the three global conventions and the concept of ecology itself purely with the ecological situation in Bishkek and other cities and industrial and trade centres but not with nature assets. That is why respondents identify refuse collection and utilization, ecological illiteracy of the population, lack of supervision of dangerous emissions into the atmosphere and so on, as urgent ecological problems whereas the problem of desertification and other global problems are perceived as "remote".

Each business determines its own responsibility for carrying out activity with regard to ecological aspects and the framework conditions for businesses are assessed by each respondent as not favourable enough. For instance: a representative of a company selling heating equipment speaks with respect about the earlier soviet period when there was strict control over hazardous emissions. The lack of control and inspection services in this area nowadays (for instance: the State Technical Inspectorate for the quality of fuel combustion has been abolished), which negatively influences the ecological environment, especially in cities and settlements. Today we have another form of control, which businesses mention as prevailing, namely inadequate financing, which leads to a shadow economy existing between producers and the state as controller.

A representative of a mining company sees his company as enjoying the ***"especially close attention of relevant state bodies, NGOs and scientific institutions" and also as being "closely watched from all sides" with reports required regularly every month and year: "We are an example of excellent***

interaction because we are the biggest business and enjoy especially close attention from relevant bodies of the Ministry of Ecology and Emergencies, State Sanitary Inspectorate. State Technical Inspectorate, Civil Society, NGOs and scientific institutions. We conduct surveys every year for the Ministry of Ecology and Emergencies and develop maximum permissible emissions based on figures received for the previous year. In order to get these figures we conduct monitoring and accept quarterly inspections by the Ministry of Ecology and Emergencies and State Sanitary Inspectorate every six months. We are closely watched from all sides. We make monthly, quarterly and annual reports".

A representative of a company supplying heating equipment confirms the existence of a large number of controlling organizations, which do not have enough funds to objectively determine emissions quality and quantity: *"Maybe it is necessary for the state to think about increasing financing at least for the Ministry of Ecology and Emergencies. Controlling organizations (a laboratory in Bishkek) do not have enough funds to purchase the latest equipment in order to determine the levels of chemical emissions. It is necessary to equip these laboratories with modern equipment. There is no relevant legislation".* Among the factors hindering eco-oriented activity respondents mentioned the lack of developed legislation due to a lack of budget funds and experts. The situation as a whole is assessed by businesses in the following way: **the existing political and governance reality and "diseases" of institutional growth are hindering the implementation of obligations under conventions.**

The majority of respondents include contradictions in legislation (quite progressive laws but inadequate norms for agencies and other quasi legal acts) and bad governance to the circle of governance problems and those contradictions are favourable holes for the receipt of staff profits. These are the reasons, which do not stimulate the state to ensure enforcement of the requirements of the legislation, which include qualified ecological expertise, which in the end hinder companies' profitability.

Respondents also acknowledged that ecological orientation is not common among businessmen. Many companies prefer to use funds to maximise profits and negotiate a "deal" with higher officials, who grant their "partners" immunity from controlling agency bodies.

There is an interesting fact that businesses see themselves as entities that produce products that do not ecologically damage the environment are at odds with assessments of businesses made by ecological NGOs. The latter assert that in spite of $3 million officially spent by Kumtor annually on ecological activities (including recycling industrial and waste water, monitoring – analysis of soil, air, water, hydro geological testing of rivers, water reservoirs, scientific research and support to nature reserves) and also assertions about the lack of damage, the negative burden on the environment made by this company is comparable to the anthropogenic impact on the environment of the population of two big oblasts of the country.

Business representatives find economic interests and benefits in convention ratification. Energy sector representatives assess the benefits, which a country can receive from the sale of ecological quotas and try to balance financial obligations under conventions and the biological equilibrium of nature eco systems.

Risks of nature conservation activity in the perception of businessmen are primarily related to the weakness of controls inside governance structures, i.e. are the risks of existing governance. Another real risk acknowledged is the possibility of exhausting nature resources. At focus group discussions those businessmen, who distribute renewable sources of energy (solar and bio plants) came to this conclusion when selecting a business profile. Thanks to support from international programmes pilot schemes to introduce bio gas plants and alternative energy saving technologies are currently underway in rural areas, involving several private companies. Equipment producers for alternative sources of energy demonstrate high levels of awareness of ecological conventions and consider themselves as actively implementing the obligations under the United Nations Framework Convention on Climate Change.

2.4 ROLE OF INTERNATIONAL AND DONOR ORGANIZATIONS IN GEC IMPLEMENTATION

International organizations represent rich countries and regions of the world, where the level of understanding of ecological programmes and the need to participate in nature conservation activity is very high because ecological aspects in the activity of central and local offices of those organizations are considered as something, which goes without saying. As one of the respondents said, "there (in the west) they are crazy about ecological problems". Besides, according to the opinion of focus groups discussions the implementation of ecological programmes and projects in Kyrgyzstan pursues two goals – market pragmatism (in the sense of the impact of local country eco problems on the global environment: ***"The environmental conditions must allow work and making a profit in such a way as not to run out tomorrow or the day after tomorrow because this is a global process"*** and as symbols of the commonwealth of countries they support democracy and so are very important.

Besides which, according to respondents the environmental management projects were taken from "outside" and combine two benefits: for the country recipient in the form of specific investments and technologies and the possibility of reducing unemployment in donor countries.

Some respondents expressed the opinion that democratic values, a willingness to help people in poor regions, and a feeling of solidarity with people all over the world moves some individuals and international organizations, which confess the philosophy of kind Samaritans and provide full support to the Government of the KR.

When assessing the state of the country's nature conservation activities, international project representatives mentioned that the low salaries of local governors and ministers leads to a struggle for resources ignoring responsibilities and creating low interest in business. Frameworks established by international consultants' criteria and procedures of banks/creditors are being constantly slowed down by bureaucratic barriers and frequently by procedural violations. An Asian Development Bank representative mentions: ***"There are bank criteria and bank procedures and you are welcome to work within those frameworks. This is a huge bureaucratic machine. It takes a lot of time for each department, about 1.5 thousand employees, to consider all the issues. For instance: we asked a question about tenders. It takes 7.5 months to organize and conduct one tender and 4.5 – 5 months to design a project so we suffer for a year".*** Thus, government policy with regard to international organizations creates an unfavourable environment for project and programme implementation.

Comparing the differences in self-assessments of the impact and influence on implementing obligations by international organizations with assessments of the impact made by other stakeholders one can see the existence of polarized opinions. According to the assessments of local ecologists for instance, other projects and programmes and the delivery of social services and satisfying important needs of society cause great damage to the country's environment and the local population. For instance: programmes to construct water pipes in Kyrgyzstan must take a considerable share of responsibility for sub-surface water flooding and increased salinity of soil and the increased threat of spreading diseases (for instance: due to decreasing the quality of drinking water) because the issues of sanitary treatment of newly developed wells and water pipes remain unsolved. The situation when 'they address the issue of water supply but do not resolve the issue of sewage and drainage' passes from one project to another and as a result there is no continuity of international projects and state structures and no effective coordination of donor assistance.

Respondents from other categories of stakeholders mentioned the low effectiveness and non-sustainability of implemented projects and programmes. For instance: public servants and NGO discussed the issue of focal points[24].

[24] A focal point is a dual-purpose institution. On one side it is a state agent, acting inside the state sector and at the same time it is a mechanism of the convention secretariat. The functional task of a focal point is the coordination of convention activity at national level and carrying out interaction at regional and sub-regional levels.

In spite of special project support focal points remaining within the framework of some agencies are limited by the possibilities of coordinating activity at inter-agency and inter-sector levels.

Respondents from international organizations spoke about the importance of importing advanced technologies, which in the short-term decrease the scales of anthropogenic pressure on nature and will promote the conservation of non-renewable resources. Special focus was placed on energy saving technologies because every winter heating becomes a political issue due to Kyrgyzstan's dependency on neighbouring states for resources. Some respondents supported adapting models and technologies transferred by other countries.

Examples of such adapted technologies and approaches are quite numerous. In particular: within the frameworks of the CAMP project Swiss representatives have introduced a method of selecting and using locally available heat insulation materials, which do not increase the consumption of nature resources. Energy saving eco-oriented technologies are being tested by the Kyrgyz-Norwegian Bishkek Demonstration Zone Company. The Japanese agency JICA is helping to develop business planning technologies under nature conditions in partnership with area authorities. .

According to international organization representatives they do not often hear what other donors and other development agencies are doing or what problems and benefits they see or receive in the course of implementing eco projects. Only thematically focused and highly organized workshops provide the possibility for discussions and sharing experience. The country does not have any special communication spaces where all the international organizations working in this area could coordinate their activity, avoid duplication and optimise resources, thus increasing synergies.

The ideal development picture includes the scenario of a balance between economic and ecological interests. In respondents' opinions a lot has been achieved with foreign support – institutional mechanisms and main conditions for improving the legislative framework regulating environmental activity and the active development of interactions between participants from various sectors to implement obligations, have been established.

Nevertheless, the general picture of eco conditions is far from being positive and includes a complicated set of social and ecological problems, which has high risk potential. The following most vital ecological risks were mentioned: 1) The greenhouse effect, 2) Lack of good energy infrastructure in rural areas, 3) Lack of waste treatment and an increased number of dumps, hazardous toxic waste production, radioactive waste and the destruction of tailing dumps, 4) Biodiversity degradation and the introduction of genetically modified products, 5) Information isolation of the rural population and 6) lack of fuel, which leads to the population felling trees.

PART 3 - CAPACITY SELF-ASSESSMENT: RESOURCES, BENEFITS, INCENTIVES AND ECO-RISKS IN IMPLEMENTING GEC OBLIGATIONS

Within the survey frameworks differences were established in the assessments and self-assessments of capacity at governance level (ministries and chairpersons, middle and low level managers) and in the inter-agency space.

Objectively, stakeholders' capacity for convention implementation includes:

- Resources ownership (personnel, capital, methodological, technical, financial and timely received information) and access to these resources,
- Level of stakeholders' involvement in the processes of convention implementation,
  Interaction in addressing crosscutting tasks.

Many participants in the process consider the capacity of other structures and organizations and their own capacity in a more shortened form, mainly in the form of financial or technical capital. The key subjective assessment criteria is the acknowledged official announcement of the status of an executive agency for one of the global conventions.

In carrying out the procedures of the capacity self-assessment process, participants rarely use three-level analysis: system, institutional and individual. This is the approach, which is most relevant in capacity assessment, which allows the study of not only normative and legislative frameworks (system level), institutional mechanisms / availability (institutional level), but also the character of the activity itself and its motivation in convention implementation (individual level).

3.1. FACTORS, WHICH PROMOTE AND HINDER THE IMPLEMENTATION OF OBLIGATIONS UNDER GEC

In the subjective perception of various categories of respondents, the existence of specific problems at system, institutional and individual levels can be defined. Some respondents saw the root of the problems in contradictions in the normative base, between laws and quasi legal acts regulating the area of implementing obligations. Others saw contradictions at the level of institutional mechanisms (for instance: the law is good but there are no enforcement mechanisms). The third group spoke about contradictions existing between the practical needs of those on whom responsibility for implementing conventions had been imposed and the strategic needs for ecologically balanced conservation to achieve sustainable development.

Objectively, the framework of their environment limits all stakeholders where daily survival needs do not promote the development of a "state-minded" mentality and a broader vision of political and management capacity. For instance: a ranger[25] should represent a structure for the regular observation and care of the area of forest assigned to him, but due to a lack of elementary basic resources (for instance: food, fuel and adequate shelter, equipment and so on.) and attributes (status, esprit de corps, support of colleagues and decision takers) a ranger stops being an "institution" (enjoying rights and responsibilities over his area of forest) and becomes an individual whose business interests prevail. In this situation a state mechanism or agency from an "institute" lowering risks and increasing the efficiency of the activity turns into a niche-chair, used to achieve personal and frequently selfish goals.

Thus, the individual level of capacity (incentives and motivation, based on the reality of the political, economic and cultural situation in an individual's life) turns out to the most effective and dominant. That is why in managerial schemes short-term pragmatic decisions and activities dominate. Let me explain using an example:

Being a public servant within the structure of the State Forestry Service, a ranger is a part of the institutional level. At this level he must obey agency instructions and bear responsibility for rational forestry resources management, but being very poorly paid (if at all) and far from the decision-making centre he does not work with regard to forest resources in accordance with agency instructions and only pretends to (for instance: in reports). A ranger at the individual level selects a certain nature management structure (a motivation that can vary from the need to survive to a willingness to maximize profit/benefit). Meeting a ranger's practical needs within a system with imbalances of rights, authorities and responsibility offers no possibility of him becoming a good manager of nature resources.

In changing his practical needs to strategic needs, even if there is a desire to do so, it is difficult for a ranger to comply with agency normative rules due to the increasingly predatory levels in a limited area and he then becomes part of the "shadow" agency structure.

[25] In this example we use an image of a "ranger" but this could be any agency employee (for instance: fishery inspector, inspector-ecologist and so on). In similar (ranger level) managerial situations there are public servants of various levels: both in areas (for instance: deputy governor responsible for ecological issues) and in agencies (for instance: from the head of an agency structure in the region to an official in the ministry headquarters).

The ranger's activity takes place within the framework of the system that legitimises the activity of the entire agency through legislation, but in a situation where there is no legislation or there are contradictions in the legislation itself, the framework turn out to be no more than symbolic. In this sense, laws aimed at regulating a ranger's activity actually imitate the legislative environment and that is how the ranger perceives them. Currently, imitation is systematic.

Thus, we are dealing with a hierarchy of motivations, where individual level motivation dominates. **It is not system or institutional levels, which dictate the frameworks, but individual capacity level, which determines the limits of implementing convention obligations.** Thus, it is strategically important to develop system and institutional levels and at individual level it is necessary to focus directly on operational activities.

3.2 FINANCIAL PROVISION

Group discussions between representatives of ministries and agencies recognized the inadequacy of the level of current material resources for implementing the requirements of the conventions and inadequate financial support for regulations and provisions is almost the biggest problem. It was noted that the available financing is enough only to maintain the departmental structure itself and solving tasks to implement particular nature conservative activities is almost impossible.

Almost all heads of ministries and agencies have noted the following: ***"The implementation of the obligations under the conventions needs significant financial resources on the part of our republic. As there is no particular budget line for the implementation of the requirements of the Conventions, each agency, for example, the State Forestry Service and the MAWRPI, implement the obligations under the Conventions as far as possible, attracting different resources, including human resources and budget funds. There is no money to implement the Convention on Climate Change or the Convention on Biodiversity etc.."***

While employees of key nature conservation agencies consider that it is important and necessary to increase the revenues of budget agencies, which could actually be spent on nature protection, officials of the main financial agency consider the priorities of financing differently. In particular, from their point of view, most important for the state is to pay off external debt and ecology, political issues or social policy, all come second to this financial task. According to one employee of the Ministry of Finance: ***"The most serious problem is external debt servicing, first, we provide for expenses for external debt and the remainder we agree and spend by sectors. This is the residual principle. We are criticized by local authorities and sometimes by some ministries, but this is the real situation".***

The important point in subjective assessments made by financial specialists is that agencies have the opportunity to participate as equals in decision - making regarding the scope of sector and agency financing under the procedure of forming the annual state budget. From the point of view of financial specialists, the problem for each minister is a lack of skills to justify the importance of some expense items in the future budget. At the same time, specialists of agencies consider that given the weak economic basis of the state, departmental structures are inevitably doomed to a lack of resources and this, as a rule, makes ecological problems low priority.

However, some stakeholders have another opinion. When the state cannot provide resources to support the environment, it optimises the use of private sector capacity, primarily the service sector, as the main source of additional funding resources for territorial authorities or agencies. Respondents consider that the principle of owner taxation should be flexible as here there are additional opportunities for finding resources for nature conservation measures.

Among respondents there were some heads of territorial departments who have already included a number of key private enterprises in the main sources of off-budget resources using the current

legislative framework. However, this approach has a number of vulnerable aspects, mainly in that where there is a lack of transparency in the procedure of transferring money from independent business structures for nature conservation activity and the procedures for using these resources, an opportunity for abuse and corruption arises.

The problems of the functioning of departmental structures go beyond financial provision, which is formed not only from budget allotments, but also off budget resources, which are many times greater than budget ones. There is no clear and transparent system of reporting the use of off budget and budget resources and only a fraction of these funds is spent on real nature conservation measures.

Off budget resources are not shown by agencies, as the agencies are afraid that if the scope of off budget resources is declared, it will lead to reductions in budget financing. However, it is clear, this factor is not the only reason for the lack of transparency in off budget financing issues.

3.3 HUMAN RESOURCES

The assessment of human resources capacity by respondents is double edged: on the one hand, most heads of agencies say that in the Soviet period highly-qualified personnel were trained, including some in Russian higher educational institutions and they should really try and retain and interest these specialists in future work. At the same time, a number of other heads consider that the poor professional qualifications of the current staff restricts the implementation of new technologies and standards and the country joining the international community. These respondents note the lack of knowledge and skills such as, knowledge of foreign languages and computer and management technologies, even ignoring how economically or ecologically focused the professional education is.

A number of respondents consider specialized professional training taking into account modern requirements necessary for key and other agencies. However, at the same time, the majority of stakeholders emphasized the problem of unused human resources in the sphere of nature protection and nature resources management. In the opinion of an employee of the State Forestry Service: ***"I think we have enough human resources. Institutes of higher education train sufficient numbers of nature conservation and environment specialists, however, a lot of them cannot find a job. A lot of them have complained to me and I know one class of graduates who cannot find work in their profession and they have started to work in other fields. The planned number of such specialists is very small and staff levels are always being reduced. Nevertheless, it is necessary to establish nature conservation structures at local level, where there is a need for nature conservation and in this case trained cadres will realize their capacities".***

It is clearly understood that there is a need for human resources having a certain level of training nevertheless, the overwhelming majority of stakeholders do not understand their own responsibility for human resources development. Responsibility for human resources training and increasing the motivation of higher educational institutions' graduates, as a rule, is given to some third parties and structures: educational institutions and international and donor organizations.

In the management practice of most of the heads of agencies and territorial structures, lack of special measures to support specialists and develop their professional capacity proves that the human resources issue is still not considered as a real component of capacity. The management principle of calling a specialist "a screw" (meaning nobody is irreplaceable) that existed in the Soviet period is still the key principle of modern managers in different spheres of nature conservation activities.

Nevertheless, a number of new generation heads and managers among the conversely prioritised the principle of "everything depends on human resources" and have thought about the character of incentives and motives, which will increase the importance of human resources' capacity in implementing obligations under the GEC.

One respondent from among the heads of the main financial agency of the country considers one way to achieve this would be to make salary levels adequate, wide implementation of social guarantees, special measures to develop a sense of belonging, prestige of the profession and esprit de corps: ***"Many people want to make the ministry strong, stop the turnover of staff and make the work of civil servants prestigious. Each of us is patriotic and I wear a badge showing I belong to the Ministry of Finance. All our employees wear these badges and this is a community. These are civil servants not politicians, implementing their functions accurately and clearly. The stimulus is that we recruit people on a competitive basis and when a person works in the ministry we should provide social protection and give guarantees".***

It is clear that such measures are not acceptable and applicable for all agencies, though the respondent-financier considers that thanks to the functional review implemented by the Government it is possible to optimise any management structure and the quantitative and qualitative aspects of human resources capacity. Then it will be possible to motivate specialists selected following the functional review analysis due to disengaged working places (what is the Russian - it makes no sense in English - editor).

Financial interest is considered by most managers to be the most important item in increasing motivation and incentives, but only some of them can find alternative sources of financing due to limited budgets. So, the head of an MEE structure shared his methods of increasing the motivation of professionals both at individual and institutional levels to implement obligations under the conventions, in particular, the implementation of a flexible form of payment and progressive methods of conducting business promote the growth of the agency and certain official revenues.

Such practices can only be implemented when the agency and structure has additional sources of financing and the right to manage these resources.

Increasing the motivation of an agency and territorial executor is considered by most respondents as possible through giving higher status and sufficient powers to their executive structures. In the opinion of a number of respondents, only if special coordinating structures with high supra ministerial and maybe supra governmental status are established, will it be possible to seriously count on the implementation of obligations under the conventions. So, for example, nature conservation activity, in the opinion of the many respondents, could be coordinated at central level through a National or Supervisory Council for Sustainable Development under the guidance of key management persons with executive powers and the inclusion of a wide range of representatives of civil society.

Therefore, when implementing the task of human resources capacity building, it is important to act not only to strengthen knowledge, skills and technologies, but also to develop the national mentality.

3.4. PROVISION OF INFORMATION

The phenomenon of the low level of awareness of participants of the obligations to be implemented has already been noted in the chapter regarding the political and management processes of implementing obligations under the conventions.

The high degree of 'closeness' of departmental and territorial structures, the wide spectrum of functional duties and low material interest of officials in obtaining an overall result, often lead to the artificial hiding or delaying of important information. In particular, departmental officials more than once noted that there are a lot of examples when important information, inquiries from Convention Secretariats etc. were lost or significantly delayed in the Ministry for Foreign Affairs.
One of the main peculiarities of information provision from stakeholders is that only a few officials consider this component of activity as the key one in the capacity to implement the obligations. Often, departmental structures, even those having the technical facilities to provide a stakeholders' awareness campaign on the implementation of the obligations under the conventions, do not use these

opportunities. The general situation is that even the structures and persons most interested and involved in the process of implementing obligations do not use the Internet and other communications channels. The content and degree of updating the websites of many ministries and agencies proves this.

It is quite clear that the low value of information resources can be explained by the low reliability of information. So, for example, some respondents of key agencies spoke about the inadequacy of environmental information presented by the National Statistics Committee based on data received from economic subjects. An extract of an interview with the head of the National Statistics Committee illustrates the issue of the reliability of the collected information:
"- Do they misrepresent the information?
- The boss who signs the report takes personal responsibility for it. If any mistakes are found in the statistical reports or they have been incorrectly submitted, then disciplinary and administrative penalties are applied. All enterprises have the corresponding methodological aids for making calculations and developing statistical reports.
After receiving reports the statistics services do logical and arithmetical controls and check the accuracy of their filling in. If mistakes or inaccuracies are discovered changes are made.
- When you mentioned that it is unprofitable for enterprises to provide false information about emissions, what did you mean?
- I did not say it is unprofitable, just that there is no need to do this. For what purpose?"

In the country, issues of responsibility for the quality of information provided and the possibilities of increasing the quality and reliability of information are not on the agenda of the process of implementing obligations under the conventions. Often, issues of awareness are put down to personal competence or showing individual will. According to one employee of the headquarters of the State Forestry Service: ***"...interaction is implemented due to pure enthusiasm and personal relations at individual level",*** though there are some objectively established barriers in the way of increasing access to information by all the concerned parties.

For example, in one and the same agency officials have different levels of awareness. There are key holders of information who are the most informed. The awareness is the result of the official's status. At the same time, neither in departments, nor in the interdepartmental environment are there any well-functioning communications channels, which could provide access to information and the capacity to discuss it by the maximum number of participants.

Maybe the only communication platforms in the inter-sector and interdepartmental environment are seminars and conferences, as a rule, initiated by international and donor organizations and projects. In the opinion of our respondents, two levels of information exchange between agencies and sectors have been formed: 1) informing about imposing responsibilities and activities within the framework of the conventions and 2) informing about the implementation of activities. If the first became more or less common practice, the second level would automatically start.

A number of respondents think the flows and circulation of information are one-sided. They noted that data are published in the National Statistics Committee reports and distributed to a certain list of recipients and after this there is access to the published reports in the library and the marketing department where these reports can be purchased. Representatives of the concerned ministries and agencies hardly ever initiate feedback and there is no information exchange.
Projects and programmes foreseeing the collection of ecological information, as a rule, do not provide their technologies and methods of information collection, professional education etc. after finishing their activities and provide only material evidence of their use in the form of reports and other publications.

In the subjective perception of respondents, one of the most important barriers to information interaction within a department or between departments is the personal will, antipathy and sympathy of bosses. As one of the oblast chiefs of a subdivision of the MEE states, the gap between key decision

makers leads to the separation of departments, encourages a narrow departmental approach and as a result, prevents the implementation of not only the nature conservation measures of the department, but also the implementation of obligations under the conventions. ***"Relationships between heads of agencies are poor, therefore, the situation is: we do not interfere in their affairs and they do not interfere in ours, though, I think that this is our common concern. I am very upset that functions regarding animals and plants were delegated to another system as our limbs have been cut off. We should work together. For example, our main nature conservation measure is restoring air quality through planting greenery. Planting greenery is in the competence of the State Forestry Service, therefore, we cannot include planting of greenery in our planned nature conservation measures".***

Some respondents consider the reason for information isolation is interdepartmental and inter-sector conflict, as timely and complete information becomes a more and more important resource. According to the respondents, cases of hiding valuable information are typical of competitive agencies, structures and persons.

In such a situation the role of alternative channels of communication increases. It is remarkable that the subjective ideas of stakeholders of different categories and classes are correctly connected with information coverage of theses issues in the country's mass media.

Miscommunication is often connected not only with conscious efforts to hide information, but also with a failure to provide requirements for different types of information by different subjects and a lack of mechanisms to satisfy these requirements. Currently, an attempt is being made to construct such a mechanism based on the Carnet network, whose information structure, information flows etc. need to be redesigned with the aim of creating an effective information mechanism and system.

3.5 ENVIRONMENTAL RISKS AND POLITICAL AND MANAGEMENT REALITY

In the perception of most of the respondents, risks are understood as barriers to implementing obligations under the conventions. At the same time, the following fact was noted: no respondent who marked a threat of some risks in the near or distant future had proper information about the degree of probability of the risk, or clearly forecast scenarios of risk development and its consequences. An official of the State Committee on Tourism, Sport, and Youth Policy justifiably remarked that due to the insufficient readiness of calculations and standards of anthropogenic load and lack of reliable data based on load monitoring, it is impossible to judge objectively the inevitability and reality of catastrophes, other than those based on personal common sense.

The experience of different countries proves that possible risks could become **a factor strengthening stakeholders' capacity.** Therefore, the objective view of risk perception by stakeholders at different levels seems to be very real. At the same time, it is important to mention that the rationalization of risks has additional benefits too, in particular:

1. Risk assessment promotes the development of conflicts (as an important factor in risk management) from latent into manifest. Such an approach makes risks visible and requiring immediate solutions.
2. The capacity of stakeholders depends on the degree of understanding and whether or not the risks have a direct bearing on the activity of a subject and agency.

Implementing ecological assessments in all spheres of economic activity, reconstructing mechanisms of environmental management and state management taking into consideration the forecast risks is still not done. The reason for this 'immaturity' of stakeholders in visualizing and understanding the risks of nature resources management is based on neglecting the need to make more effort and invest more funds to calculate risks and improve management technologies that may in future provide more benefits.

According to a regional head of the MEE structure, neither the chief of a subdivision, official of the ministry, nor specialists of all levels, can count on career development and professional growth at work. The reason is the lack of continuity in human resources management and the fact that assessing specialists is not based on professional criteria, but personal devotion and sympathy is applied: ***"Today if you have good relations with a minister you will work, but tomorrow this minister will leave and a new minister will come. After this all operational personnel from the accountants upwards will be changed. Today, civil servants have no guarantees that they will work. If only I could have a guarantee that I would work for 5 years and the same goes for ministries, today they are ministries and tomorrow – they are gone. Therefore, they are not interested in putting in any effort and sometimes people even steal something".***

One respondent has served under seven ministers during the last 13 years and with every new minister he has had to build a social relationship from scratch in order to keep his job.

Only long-term development and sustainability of the environmental management system can comply with the strategy of risk rationalization expressed in the idea that development meets the needs of the present without compromising the ability of future generations to meet their own needs[26].

Therefore, the modern political and management reality does not promote transformation of the system of environmental management into a power institution for taking conscientious professional decisions. Nevertheless, even though there is a lack of a strong basis for calculating eco-risks and forecasts, including management risks, most stakeholders have managed to acquire the income-generating essence of potential and real risks. In conditions of budget deficits of ministries, departments, and territorial management structures, risks become a favourable basis for attracting investments for their activity in the form of grants from international donor organizations operating in the sphere of global ecosystem conservation. Many participants at different levels of executive power and different sectors of society have proved that the number of developed projects and the size of attracted grant funds from international organizations for environmental needs, including implementation of the conventions, has become the indicator of their productive success. A number of respondents say that this criterion is promoted as the dominating one at the highest level of country management. In particular, a representative of the President of the Republic's Administration noted that the President requires that more grants be attracted for solving different social and economic problems, including environmental ones: ***"The President demands we be up to date and monitor all international projects regarding these problems, but when we came here, we didn't do this".***

Determining the attraction of investments, governmental stakeholders at different levels actively play the risk card creating a policy of concretized types of risks. It is not by chance that today the problems of tailing dumps, which pose a hazard to the security of not only Kyrgyzstan, but also the whole region, are called the most real and marketable. The threat of mudflows and landslides is also very tangible in the KR, which is not very actively covered in the mass media and is not openly discussed in the public political space. However, local risks and catastrophes are also income-generating sources, but only after they have happened.

If a qualitative analysis of the expenses of key agencies involved in the process of implementing obligations is made, then in the opinion of a number of experts, it is possible to reveal two clear tendencies of expenditure policy: one is preventive, oriented on preventing regional and more widespread risks, whilst the other is reactive, connected with clearing up the consequences of local catastrophes, which are usually locally recurring risks.

[26] Development "meets the needs of the present without compromising the ability of future generations to meet their own needs." - The Brundtland Report – Our Common Future was drawn up by Gro Harlem Brundtland, a former Prime Minister of Norway. This report changed the discourse of global environmentalism towards sustainable development

An indirect fact proving the domination of reactive policy in nature conservation activity can be seen in the name of the agency itself, the MEE. Notionally, ecology and clearing up emergencies and in reality, clearing up the consequences of emergencies, prevail.

In the opinion of our respondents, agencies and other executive structures also play the risk card while forming the national budget. Activity, which in their opinion has the most risk from a short-term point of view, should be financed as the priority one (to a greater amount and operatively).

The evidence of this is the disproportion in financing three key agencies (the MEE, MAWRPI, and SFS) in favor of the MEE to implement the conventions, moreover, inside the MEE there is a distortion in financial resources distribution in favour of emergencies.

3.6 MARKET MECHANISMS AND NEW TECHNOLOGIES

In world practice, market mechanisms are very active factors promoting the growth and distribution of some rules, standards and technologies. It is not by chance that global ecological conventions place great emphasis on market mechanisms in the implementation of country obligations without minimizing the importance of legal and organizational nature management. The management system regulating the implementation of the conventions should take into account the capacity of market logic and motivations that need new approaches to planning, monitoring, evaluating and organizing communications.

It is possible to establish that among different stakeholders (both governmental structures and business and the civil sector) the first experience of market approaches, which provide long-term implementation of the obligations under the conventions, is formed.

The implementation of pilot projects on the basis of rational risk forecasting has undoubted benefits of strategic importance. As a result, the obligations under the convention on biodiversity, combating desertification or adapting to climate change are implemented and also a long-term basis for further capacity development is created. In particular, within the framework of such market projects real partnerships between different categories of stakeholders (state, business, civil sector and international organizations) are formed and communication channels and platforms on issues of nature conservation activity are established and advanced nature conservation technologies whose development cost developed states a lot of investment, are transferred.

PART 4. SYNERGIES AND INTERACTIONS FOR THE IMPLEMENTATION OF OBLIGATIONS UNDER GEC

The notion of synergy has still not been established in management practice in Kyrgyzstan and even in the world, therefore, today we can see contradictions in understanding the notion of synergy and synergetic interaction. In the publication issued by the GEF in 2001 entitled, A Guide for the Self-Assessment of Country Capacity Needs, this notion is interpreted as 'synergetic decisions in relation to the needs of capacity building …on conservation and rational use of the environment' and could become 'an efficient means of increasing the effectiveness of this activity'. In this understanding of synergy, which is very popular among stakeholders involved in implementing obligations under the conventions, there is a contradiction.

From the point of view of a member of a local community, a person living near a forest, for example, the prime costs and benefits of rational action are much more than the risks of fines and other sanctions. In correlating the risks and benefits of destructive nature consumption, a forest (land, water etc.) user will be interested in increasing the 'effectiveness' of its destructive activity on resources use.

Rational and effective decisions from the point of view of a nature user may predetermine the worst result for nature assets (i.e. a forest is effectively felled, fauna is rationally exterminated, air is effectively polluted, or soil is rationally exhausted), therefore, it is important to state that rationality does not always lead to sustainability and effectiveness leads to capacity building. While understanding synergy, it is important to state that a number of rational and effective decisions will lead to an overall effect that is not always sustainable and fair. This contradiction was justified at the World Summit on Sustainable Development and a new notion, a regenerative economy, connected with synergy suggesting a radical decrease in resources use and a simultaneous increase in employment, was introduced.[27]

The complexity of the notion of synergy, the availability of a number of factors preventing a synergetic effect in implementing the obligations under the conventions and also a lack of important demonstration patterns of synergetic interaction in international practice, was noted by the representative of the CCD Secretariat at the seminar entitled, Global Ecological Conventions: Interaction at National Level (October 2004, Bishkek).

Respondents to the sociological survey have demonstrated their vision and extent of understanding of synergy capacity in the implementation of obligations under the conventions, which generalize some ideas as regards **to factors facilitating or preventing the achievement of a synergetic effect.** The respondents consider that inhibiting factors are the following:

- In political and management processes at interdepartmental and territorial levels the processes diverted from proper nature conservation activity to the struggle for resources dominate;
- As a result narrow departmental interests dominate at all stages of the implementation of the obligations under the conventions: in legislation development, in formalizing behavioural procedures within the agency and its structures, in establishing interdepartmental relations and organizing communications and information exchange etc.
- Instability both at system, institutional and individual levels causes such phenomena as a lack of continuity in policy, contradictions in the legislative framework, presence of short-term and selfish interests arising from the sense of being a 'temporary manager' at all management levels and loss of professionalism.
- The domination of subjectivity in assessing the effectiveness of how the system/ institutions and individuals function. Management is personified and the system of relationships depends on individual, subjective factors.

Contradictions and weakness of the control system is conditioned by:

- Weakness of internal departmental control and the domination of subjective factors in management that promotes forming and strengthening the corrupt environment of nature assets management;
- Double subordination of territorial departmental structures and the availability of a 'double source of power at a higher level (Government and the Presidential Administration) as a result of the distortion of authorities, rights and liabilities.

At the same time, in the opinion of respondents, there are **a number of factors facilitating achievement and strengthening synergetic effect** in the implementation of obligations.

First of all, they include 'shoots' of experience of synergetic interaction between different governmental structures and sectors of society, for example, on writing national reports or forming communications platforms (for example, the previously mentioned Global Ecological Conventions: Interaction at National Level Seminar).

The tendency for structural change in a number of agencies and other executive structures with the aim of integrated nature assets management can be seen. For example, in accordance with obligations under

[27] Edited by Zax V., Memorandum for the Fairness in a Fragile World, World Summit on Sustainable Development H. Boll Foundation, 2002, p. 37

the CBD, water management bodies of the Bishkek Department of Water Management were restructured so that in future there will be an integrated water resources management and land irrigation system. In Issyk-Kul oblast, integrated nature resources management has been formed, for example, a pilot project on the decentralization of management.

The Department of Ecology and Nature Management of the MEE has positive experience of economic entities' participation in the process of implementing the obligations under global ecological conventions in the strategic sphere of monitoring the state of the environment.

Respondents expressed the opinion that there are two parallel strategies for obtaining synergetic effect in the implementation of the obligations under the conventions:

- Focusing attention on strengthening the implementation of the components of the conventions on decentralizing nature management (also integrating special conventions such as the Aarhus Convention) and increasing the circle of people participating in decision making regarding nature assets management through involving new partners (from local communities, scientific society, civil sector);
- Changing framework conditions (system/institutional) and creating a management environment (for example, through maximum integration of obligations in management schemes at all levels) in which implementation of functions of officials and other stakeholders will automatically mean the implementation of the obligations under the conventions. Such an approach will help overcome the direct dependence of the effectiveness of the implementation of the obligations on the motivations of an executor, create a system of checks and balances against corruption mechanisms, abuse of service position and assessments of activity based on personal sympathy and antipathy.

Conclusions:

1. The notion of synergy is not yet established in management practice that shows contradictions in the perception of the notion of synergy and synergetic interaction. The widespread understanding of synergy in the terminology of rational use and increasing effectiveness does not always meet the tasks of sustainable development, as rational and effective decisions and activity from the point of view of a nature user may be the worst result for nature assets, in assessments dominated by subjectivity.

2. The respondents consider that the following factors are inhibiting ones:
   diversion of the focus of activity of the main acting parties/persons from proper nature conservation activity to the struggle for resources:
   - forming narrow departmental interests;
   - spontaneous management provoking a lack of continuity in policy, contradictions in the legislative framework, short-term and selfish interests etc.;
   - predominance of subjectivity in assessing the effectiveness of the activity of the system/ institutions/ individuals;
   - weakness of internal departmental control and the dominance of subjective factors in management;

   presence of contradictions in the functional duties of acting parties/persons: double subordination of territorial departmental structures and the presence of double sources of power at a higher level and duplication.
3. Preconditions of synergy are presented by 'shoots" of experience of the synergetic interaction 'between different state structures and sectors of society on the development of communications platforms and joint performance of certain tasks and increasing the circle of participants in the processes of implementing obligations under GEC.
4. The factors facilitating synergy seem to be changing the framework conditions of activity of the main parties and persons with the aim of integrated nature resources management.

Conclusions and recommendations
of DialectICON Ltd based on the results of the sociological survey

I. About a logical system of decision making:

- ratification of the conventions to a certain degree symbolized Kyrgyzstan joining the civilized world and supported the image of a country ready for open cooperation with the world community;
- in Kyrgyzstan, a number of significant participants on the implementation of the obligations under the conventions have been formed. Besides the state, other nongovernmental organizations, scientific circles, local communities and private business and international organizations and development agencies working in the country, are included in the ecological process;
- participants in ecological activity, as a rule, consider their own capacity and the capacityof other structures and institutions as predominantly limited by the levels of financialandtechnical resources. Less importance is given to human resources provision, methodology and access to information and the involvement of stakeholders in the implementation of the obligations under the conventions, as a rule, is not understood as being related tocapacity development;
- the number of developed projects and volumes of attracted grant funds of international organizations for environmental needs, including those related to the implementation of the conventions is the criterion and indicator of success and effectiveness of activity for most of the participants;
- participants in the process are limited by their environment in which momentary needs for survival do not promote the development of the mentality of an 'organization man' and a wider vision of capacity and political and management reality;
- respondents of different categories of stakeholders note the presence of specific problems at system, institutional and individual levels;
- in the hierarchy of motivations of governmental bodies at all levels, individual motivations dominate. Therefore, in management systems there is a predominance of short-term pragmatic decisions and activities. Neither system nor institutional levels dictate the limits, but the individual level determines the bounds of the capacity to implement the obligations under the conventions;
- within the framework of political and management systems two principles are clearly contradictory: traditional **(nobody is irreplaceable)** and modern **(everything depends on human resources)**. In most cases, staff problems are not considered to be an important component of capacity. Whilst recognizing rather than understanding personnel training needs, the overwhelming majority of stakeholders do not understand their own responsibility for developing human resources policy;
- activities of state management bodies whose authorities have time limits do not help them change into a power institute for taking conscientious professional decisions or forming objective risks and benefits assessments;
- most heads of governmental structures say that capacity to implement the conventions is constrained because of lack of budget funds and nothing is said about off-budget resources received from the business sector, grants and other investments by international organizations. Lack of transparency in the expenditure policy of off-budget resources creates a favourable environment for abuse and corruption;
- in the perception of most of the participants – respondents, risks are considered as purely negative factors and barriers to the implementation of the obligations under the conventions. At the same time, stakeholders cannot forecast risk scenarios and their consequences;
- in conditions of budget deficit of ministries, agencies and territorial management structures, even unjustified risks become a favourable basis for attracting investments into their activities in the form of grants from international donor organizations for ecological purposes;
- the reason for the 'immaturity' of stakeholders in understanding the importance of the risks of nature resources management is based on an unwillingness to exert more effort and funds to making risk assessments and improve management technologies when through popularising risks it is possible to obtain more benefits;
- governmental stakeholders at different levels actively play the risk card and, moreover, under this

policy the real probability of risk may have secondary importance;

- as soon as stakeholders understand the market logic, the increasing commercialisation of ecological activity encourages the interpretation of risks, which is conditioned by the distribution of authorities, rights and capacity, but not the liability for risk management;
- two tendencies of the financial resources spending policy by agencies and ministries have been formed: preventive, aimed at preventing the regional and more widespread reactive negative impacts on the environment, connected with clearing up the consequences of local catastrophes, which dominates;
- governmental structures, business and the civil sector are acquiring their first experience of market approaches, which will provide long-term prospects for the implementation of the obligations under the conventions. Within the framework of these market projects, real partnerships are formed between different categories of stakeholders (state, business, civil sector and international organizations) and communications channels on issues of nature conservation activity are established and advanced nature conservation technologies, whose development cost developed states much larger investments, are transferred.

II. About the character of the circulation of information on the implementation of the obligations under the conventions

- information about the obligations of the Kyrgyz Republic on the implementation of the requirements of GEC does not circulate in an accessible form outside three main ministries (MEE, MAWRPI, and State Forestry Service) and agencies, which participated in ratifying the conventions (the MFA, Ministry of Finance, Jogorku Kenesh);
- the specific character of the modern sphere of information provision is that this component of activity is not considered as key in the capacity for implementing obligations. Often, even those departmental structures having the technical facilities to run a stakeholders' awareness campaign about the implementation of the obligations under the conventions, do not use this opportunity;
- two directions of information exchange between agencies and sectors have been formed: 1) informing about imposing responsibilities and planned activities, 2) informing about the implementation of activities. If the first direction becomes more or less common practice, the second becomes automatic;
- unimpeded circulation of business information in the interdepartmental and inter-sector space is limited by communal miscommunication and the antipathy between heads of agencies and subdivisions.

III. About differences in the perception of stakeholders and the population of the need to involve local communities in the decision-making system to implement the conventions

- at declarative level there is no difference as such and decision-makers and local communities understand that programmes on social mobilization and decentralization should be the main mechanisms for implementing the idea of involving the local population in the decision-making system;
- local communities have not yet become efficient participants in implementing obligations. Nevertheless, there is a tendency to integrate the local population in associations at different levels and this integration is promoted by different projects and programmes of international organizations, as is signing up the country to a number of international agreements on developing the decentralization of management;
- due to the current specifics of the political and management process (struggle for resources) officials are not interested in involving the general public, particularly local communities, in direct nature resources management.

Recommendations:

1. It is extremely important to create communications platforms for all stakeholders, which should have some functional focuses:

- coordinating the interests and opening positions facilitating the development of conflicts from latent to manifest and increasing synergetic capacity;
- creating public assessments of a) the condition of and changes in environmental protection and environmental management legislation, b) national reports/ communications about the implementation of the obligations;
- organizing forums of public assessments, which can become a factor of influence on the state as the responsible executor of the obligations under the conventions.

2. It is necessary to focus attention on the implementation of the components of the conventions (the Aarhus Convention etc.) on the decentralization of management and involving new participants (from local communities, scientific society, NGOs, business structures) in the process of taking decisions on nature resources management;
3. It would be beneficial to change the framework (system/institutional) conditions with the aim of creating an environment that should present a system of checks and balances against corruption mechanisms, abuse of service position and assessments of activity on the basis of personal sympathy/ antipathy.
4. It is necessary to establish a coordinating body, for example, a National or Supervisory Council for Sustainable Development under the guidance of key management persons of the country, having the following functions:
   - providing inter-sector and interdepartmental interaction, particularly at territorial level (oblast administrations and oblast departments of key ministries and agencies) for effective cooperation to implement the obligations under the conventions;
   - integrating nature resources management;
   - developing and implementing advanced market mechanisms in the processes of implementing obligations
5. It is necessary to create and permanently improve the system of national mechanisms for the implementation of the obligations under the conventions, in which the focus of nature assets management should be changed from reactive to preventive activities and include:
   - a system for tracking indicators of the condition and use of nature resources through the creation of a database. The main principle of the functionality of the database is openness of monitoring results, monitoring methods and purposeful delivery and distribution;
   - determining the effectiveness of the activity of the MEE and other structures not based on clearing up the consequences and other aspects of reactive policy, but based on reducing the spectrum and decreasing the acuity of risks through strengthening preventive measures;
   - optimising the system of professional training of specialists in different spheres of nature management, by including agencies in the educational process and forecasting the number of staff that will be needed by agencies and lower organizations and motivating students by linking theory and practice and integrating them into particular professional spheres. Professional training should take into account the need for particular environmental specialisations, which will enable agencies to guarantee taking eco-oriented decisions;
   - optimising financial and expenditure policies of budget and off-budget funds providing a certain critical threshold of financing of practical nature conservation measures. This threshold can be collectively established at interdepartmental level, maybe, within the framework of the Council for Sustainable Development;
   - implementing capacity building through improving the human resources input of stakeholders not only to increase skills and knowledge, but to develop the national mentality.

Case-Study 1 – Studying the role of SGP in the process of involving the local population in effective nature management

The Western Tien Shan region is an ecosystem with a unique biodiversity. Therefore, the problem of interaction between man and the environment in this biologically highly important territory is very important.

In the Aksy rayon of Jalal-Abad oblast international organizations such as GEF, TACIS and LESIC have arranged projects aimed at reducing the anthropogenic load on ecosystems through implementing alternative income-generating types of activity by the local population. In the buffer zone of the Sary-Chelek reserve and in the reserve itself (Arkyt village) the GEF/SGP Project is supporting activities such as establishing a nursery of forest cultures, developing poultry and beekeeping, forges and replanting trees on mountainsides and land subject to degradation.

The main problems of the region include unemployment, difficult access to markets and lack of agricultural equipment. Poverty and unemployment push people to use nature resources intensively, i.e. illegal tree felling and collecting and selling nuts in wild forests[27].

The project, to reduce the anthropogenic load on ecosystems, in particular, on walnut forests, pastures and meadows, includes two different components: increasing the standard of living of the local population and involving local communities in the nature conservation process through economic encouragement. The Small Grants Programme (SGP) aims to provide sustainability to those types of activity, which are supported through the grants. Grant recipients emphasise the opportunity to make a profit from projects supported by the SGP. The economic component (getting an income from these measures) is the most important incentive for them, while environmental motives are of secondary importance. Peasants living in unique biological conditions and, at the same time, facing unemployment every day, are first and foremost worried about the financial aspects of the issue[28].

The SGP supports many different kinds of projects all of which aim to preserve the biodiversity in the reserve and its surroundings. This is done by creating the conditions for developing environmentally friendly types of economic activity, including supporting the ecological and tourism infrastructure. It is important that all these measures, including ecological ones (creating nurseries of wild cultures, planting shrubs and trees) are economic in essence and based on market principles. For example, creating a special nursery with young trees through the SGP is eventually aimed at selling as many young trees as possible at low prices to the local population. At the same time, the grant recipient prefers to plant those cultures, which have economic value in the short-tem and which have a local market. The most significant of these are nut trees, which give a first harvest 4-5 years after planting[29]. Walnuts have a stable market in any season and this fact plays a very important role in selecting the cultures for planting by the SGP grant recipient.[30]

The logic of economic pragmatism is clearly visible among officials and the state forestry service and its territorial structures working in the Aksy rayon. The rural population lives in poverty, suffers from unemployment and, therefore, goes into the forest to fell trees, collect walnuts and shoot animals. People are forced to do this.[31]. Therefore, it is necessary to provide them with alternative types of work, simply to involve them in something, or "to divert them from the forest"[32].

[27] Results of questioning the local population
[28] Interview with SGP grant recipients of Aksy rayon
[29] Interview with SGP grant recipients of Aksy rayon
[30] Interview with SGP grant recipients of Aksy rayon, Director of the Arkyt forest
[31] Interview with Head of Kyzyl-Tui aiyl okmotu
[32] Interview with a representative of the State Forestry Service

It turns out that raising the standard of living of the population reduces the load on the forest and conserves the biodiversity, as a rural citizen having a job is not interested in "going to the forest". For the rural population, the SGP has become one way of combining economic benefits and the opportunity to preserve the environment.

Another aspect of SGP strategy is the gradual involvement of the local population in joint nature assets management in the form of giving grants for planting shrubs and trees on different land, support to seed-growing in nurseries, growing rare species of trees in nurseries, support to enclosing rented land etc. It is important to note that the activity of the SGP in supporting nurseries and growing saplings is in line with the Concept of the Development of the Forestry Branch of the Kyrgyz Republic. Under the SGP in the Aksy rayon a number of nurseries growing trees included in the Red Book of the KR have been set up. Grants were given to private persons united in different associations and NGOs. Per se, the SGP promotes the delegation of forestry functions (growing saplings, re-forestation) to the private sector that is one of the priorities of the KR forestry branch development[33].

The SGP also facilitates the involvement of the population in land management by supporting communal forestry. More and more rural citizens are renting land in forests and growing trees and cleaning up and protecting their land themselves. Under the SGP some grants have already been given to tenants to procure saplings and fence off their land. Rural citizens who have rented land are interested in the careful and rational use of resources on their land. People grow walnut, plum and other fruit trees on empty land to get a sustainable income from selling the future harvests. At the same time, they prevent deforestation and livestock grazing on the land they protect and simultaneously clean up and prune plants and trees. For the provision of future firewood, rural tenants are trying to grow fast growing kinds of wood, such as poplar. Therefore, the work of the SGP in Aksy rayon is closely connected with the decentralization of forestry, in particular, with delegating most functions of nature management to the local population.

At the same time, there are some shortcomings in the work of the SGP and organizing CFM. First of all, when giving grants the sums of money needed are underestimated, which negatively reflects on the scope and quality of works later implemented by grant recipients, as drawing up a budget for receiving a grant the rural population (grant recipients) must include a minimum level of activities necessary to implement effective work[34]. By restricting the sum granted by half or more a grant giver does not understand that this amount will not be enough to obtain the planned results.

Secondly, there is a clear lack of advisory services for potential grant makers, in particular, in relation to undertaking forestry engineering measures connected with selecting which species of young plants to grow and care, pruning and watering techniques. This relates, first of all, to the grants given to establish nurseries and re-forestation of land rented within the framework of the CFM. Consultations should be given not only to grant recipients themselves, but to forestry workers who often have inadequate forestry skills[35]. A lot of grants had no effect because of the lack of the appropriate knowledge and skills of grant recipients. The answer in this case may be the creation of a model nursery to educate and demonstrate the forestry activities needed so that SGP grant recipients can work successfully.

Thirdly, there is a need for closer cooperation between the SGP and the local forestry service on the one hand and between the SGP and aiyl okmotu, on the other hand. Forestry specialists should be involved in imparting forestry knowledge to grant recipients. Under the SGP, the level of involvement of aiyl okmotu is minimal and does not go beyond agreeing the procedures for granting land[36]. People often do not know the procedures for submitting an application to the SGP, as public awareness activities are mainly implemented by local NGOs, and are unevenly disseminated throughout the rayons and also

[33] Concept of Development of the Forestry Branch of the Kyrgyz Republic, Regulation #256 of the Government of the KR dated 14.04.2004

[34] Interviews with SGP grant recipients of Aksy rayon

[35] Interviews with an NGO Director, a forestry employee

[36] Interview with the Director of a Reserve, the Head of an aiyl okmotu

depend on individual activity. At the same time, there is a low level of understanding the objectives and concepts of the CFM on the part of the population, which leads to the ineffective use of SGP funds. The lack of resources of aiyl okmotu and the forestry service to undertake more widespread explanatory measures among the population promotes this tendency.

In relation to nature management, the population, first of all, looks to the aiyl okmotu[37]. At the same time, the participation capacity of the local population in the processes of decision-making regarding the problems of nature management and nature protection is very low, as people do not see the reason for such participation and often do not know that such decisions should be taken at the level of village gatherings and meetings. Evidently, most of the population does not understand its role in the processes of decision-making and does not realize that they are subjects of the management process in general and nature management, in particular.

Closer cooperation of the SGP with local authorities would enable it to cover more rayons and broaden the level of public awareness of the local population that could increase the importance of the SGP in the opinion of the local population.

Case-Study 2 – Studying the model of sector interaction using the example of the Ministry of Health

Studying the impact of global climate change on the population's health seems to be very real. The current warming has caused great anxiety in the WHO, which in 1995 launched a special programme to assess the impact of global warming on the population's health. In London, in 1999, at the Ministerial Conference on Environment and Health in which ministries from 35 countries participated, this programme was significantly extended, and a Protocol on Water and Health was adopted and by signing the Protocol parties agreed to safeguard their own citizens health against diseases associated with water pollution, protect water resources and create a system to eliminate dangerous situations.

Based on estimates of the WHO Regional Office for Europe, climate change has caused about 150 thousand deaths in the world and a total loss of about 5.5 million years of life taking into account disabilities (the DALY indicator is Disability Adjusted Life Years)[38]. At the same time, not only the influence of diarrhoea (gastro enteric) diseases, malaria and malnutrition, but also deaths and traumas as a result of flooding has been taken into account. Joint analysis of climate and the epidemiological situation has shown that where air temperature increases by 10 °C the number of cases of diarrhoea-related diseases increases by 5%. In particular, it is clearly seen in countries where GDP does not exceed 6,000 USD per year. Up to 2.4% of all cases of diarrhoea in the world are connected with increased air temperatures. In comparison with other factors of the environment this type of "environmental disease burden" is much more difficult to control and evaluate. [39] This fact is explained by the lack of long-term data necessary for the appropriate analysis and satisfactory prognosis.

In the Kyrgyz Republic, legislation to solve environmental problems has been developed: The Constitution of the KR, Laws On Environmental Protection, On Ecological Assessment, On Water, On Protection of Ambient Air, On Radiation Security of the Population of the Kyrgyz Republic, On the Safety and Quality of Food, On the Sanitary-Epidemiological Well-Being of the Population etc. The Concept of Ecological Security of the Republic has been developed and adopted and legislation and a special programme on the prevention of the impact of climate change on the population's health have been adopted. These include: The Manas Programme, the National Action Plan on Environmental Hygiene etc. In October 2004, the Government of the KR approved a regulation on Social and Hygiene Monitoring, under which cause and effect relationships between the population's health and the environment and the assessment of the risks of the impact of negative factors on the state of the environment and health of the population, are

[37] Interview with a representative of the State Forestry Service
[38] Concept of Development of the Forestry Branch of the Kyrgyz Republic, Regulation #256 of the Government of the KR dated 14.04.2004
[39] Interviews with SGP grant recipients of Aksy rayon

studied. The training of different groups of specialists and experience exchange with colleagues from Russia, where a similar programme has been working for the last six years, is being implemented. To develop projects and the methodology of risk assessment, significant financial resources are needed. This programme aims to create a unified database and prevent the spread of diseases.[40]

An employee of one of the leading health institutions notes that there is a need to develop a special state programme, which pays special attention to preventive measures to avoid climate changes impacting on people's health and determining the tasks for ministries and departments in this connection.[41]

The imperfection of legislation is also noted and many laws duplicate laws of other republics and are not adequate for the modern situation in the country. Nature conservation laws should be harmonized with international ones and also take into account the obligations of the country under international conventions. There is a problem of public awareness and laws implementation. For example, the Law on Ecological Assessment does not work and the Hygiene Assessment is declarative.[42]

According to the results of the sociological survey, the material and technical base of the sanitary and epidemiological service is poor. Because of the lack of financial resources and materials, analyses of food to reveal heavy metal pollution are not implemented in Issuk-Kul, Naryn, Talas and Jalal-Abad oblasts. The problem of training ecological hygiene specialists, the issue of a unified system of monitoring of population health and limited access to world databases are very acute. There is a lack of international ties and weak national research, though since 2001 under a project financed by the World Bank, reforms to the sanitary and epidemiological service are being implemented. The reforms foresee an improved material and technical base of the sanitary and epidemiological service, provision of modern equipment for laboratories, construction of a computer network for tracking diseases and the state of the sanitary and epidemiological well-being of the population, rationalization of the scope of conducted studies and approaches to implementing supervision and the elimination of conflicts of interest and duplication of functional authorities between different departments.[43] However, conflicts of interest and duplication of functions still exist. An example of this is the simultaneous giving of quality certificates by the National Institute for Standards and Metrication and the Department of Sanitary and Epidemiological Supervision.[44]

Many projects aimed at prevention and preventive health care are only being implemented with support from international donor organizations.

In the opinion of management employees, it is impossible to stop climate change and adapt to this process, as this does not depend on them.[45] People do not feel involved in the processes of nature management both at decision-making and everyday practice levels. People do not think the ecology is very important, as it is impossible to prevent such global ecological processes as climate change because it does not depend on people.[46]

[40] Interview with the Director of the State Sanitary and Epidemiological Supervision Department
[41] In the same place
[42] According to the opinions of officials from ministries and executive bodies expressed in interviews conducted during the survey (See interviews #18, 8)
[43] General Report of Experts of the HCIIP/UNDP-GEF Working Group
[44] Interview with a representative of the State Sanitary and Epidemiological Supervision Department
[45] According to the opinions of officials from ministries and executive bodies expressed in interviews conducted during the survey (See interviews #8,29,27)
[46] Interview with respondents 21, 8

Case-Study 3 – Studying the model of technologies management and contradictions between ecological and economical tasks in the activities of economic subjects

The Heating and Power Plant of Bishkek generates, via 11 turbo generators, electricity for Northern Kyrgyzstan and also heating and hot water for the inhabitants of the capital. Initially, the Heating and Power Plant was designated only to produce steam for the Cloth Factory. In 1962, in accordance with a Government decision, it was decided to double the capacity of the Heating and Power Plant to supply heating and hot water to the inhabitants of the city and industrial plants. Since the first unit was launched in 1961 up to the end of 2003, the Heating and Power Plant of Bishkek had produced 98.8 billion kilowatt-hours of electricity and 112 million giga-calories of heat energy.

Now, the Kyrgyz Republic is totally dependent on gas and fuel imported from CIS countries and the Bishkek Heating and Power Plant currently works on nature gas supplied from Uzbekistan. Almost every year power cuts occur and the Heating and Power Plant finds itself the centre of attention by the public and politicians alike. Interstate agreements on supply of nature gas have been signed, but they are not always observed.
Converting the Heating and Power Plant to gas is one way to reduce greenhouse gas emissions in spite of the high cost and irregularity of supplies[47]. However, for economic reasons, it is currently impossible to convert the Heating and Power Plant over to nature gas.

In summer, when gas consumption falls, the fuel for the Heating and Power Plant is purchased - Kazakh coal, which is much cheaper. Annually, the Heating and Power Plant uses 700 thousand metric tons of locally produced Karakeche coal and the cost of transporting it is very high. Opening the first branch line of the TransAsian (rail) (editor)road from Balykchi – Karakeche will provide the Heating and Power Plant with local fuel[48]. However, Karakeche coal is brown coal with a high percentage of ash and toxic substances emissions that greatly pollute the environment. To prevent such an impact, it will be necessary to introduce new generation brown coal-fired boilers.

It has been proved that limiting greenhouse gas emissions is not a barrier to economic development, and, on the contrary, encourages the use of modern energy saving technologies. The main aim of using alternative and renewable sources of energy is to reduce harmful impacts on the environment. In order to reduce the concentration of pollutants in the surface air, the Heating and Power Plant is continuing to switch the boiler extractors into a 300 metre high chimney, which dissipates the concentration of harmful substances in the surface air by 4-4.5 times more than the small 110 metre high ones. Moreover, the scoria is stored and the ash tips are being renovated. Research is being carried out into of the quality of subsoil water to prevent it exceeding pollution norms.

In 2000, the IMF granted the Heating and Power Plant a loan to replace the old aggregates and cleaning plants on condition they met ecological norms.

Currently the Heating and Power Plant receives a state subsidy and is unprofitable.
Due to expenses for nature conservation measures this enterprise is exempt from some taxes. In 2003, the Heating and Power Plant spent 6 million 235 thousand soms, in 2004 2 million 300 thousand soms and in 2005 it is planned to spend 20 million soms on these measures. Nevertheless, many problems remain unsolved. In particular, 80 hectares of land in an outlying district of the city assigned for storing ash are now already within the precincts of the city and the Bakai-Ata housing estate has been built there in defiance of all environmental norms. The issue of moving the ash and scoria dumps, which have already existed for more than 40 years, has still not been solved.[49]
According to the calculations of researchers, at the end of 1980 harmful emissions from the Heating and Power Plant accounted for 25-30 % of the overall level of pollution. This research is no longer being carried out because of the high cost.[50] Along with the Heating and Power Plant the main air polluters

[47] Interview with a representative of the Heating and Power Station
[48] Interview with a representative of the Heating and Power Station
[49] Interview with a representative of the Heating and Power Station

are vehicles and small boiler-houses.[51] In Bishkek there are 49 functioning boiler-houses, which are not under laboratory control and have no professional personnel.[52]

In the opinion of some respondents, with the aim of supporting industrial entrepreneurship, environmental authorities often make significant allowances for some economic subjects and sometimes they are harmful to the environment. Such orders come from the top, even though the levels of pollutants from these enterprises exceed the norm.[53]

In recent years, emissions of pollutants by vehicles have increased 2-3 times. The HydroMeteoService carries out control over these emissions, but because of a lack of resources it is not fully operational. Employees of the MEE conducted joint checks with the State Vehicle Inspectorate aimed at implementing measures to reduce harmful emissions by vehicles. Currently, all mutual cooperation measures have been terminated. In many respects, cooperation directly depends on personal relationships between the heads of agencies.[54]

Myths have arisen that we do not pollute the atmosphere very much because our industrial output has fallen and that emissions of greenhouse gases by businesses do not greatly influence climate change.[55]

Case-Study 4 – Implementation of scientific agricultural technologies by private farmers and their input into rational land and water resources management using the example of Sokuluk Experimental Farm

Sokuluk Experimental Farm is a structural subdivision of the Kyrgyz Agrarian Academy and is used to demonstrate agro-technical methods of tilling to students and agrarian scientists. Here different scientifically verified technologies for rational agricultural land management are tested: protection from irrigation erosion, conservation of soil fertility, Chemicalization, crop rotations, land reclamation etc. Agro-technologies are demonstrated so that they can be further used on farms and peasant farms and for practical training of students, post-graduates and scientists.

On the Sokuluk Demonstration Farm a demonstration plot (DP) has been set up of by the joint Centre for Agrarian Sciences and the ICARDA international research centre Water and Land Management Project. This plot was set up to disseminate and implement technologies to increase crop yields and the effectiveness of land management in specific conditions (Waterlogging, high salinity, low levels of subsoil water). In particular, effective methods of soil investigation, agro-Chemicalization, irrigation, protection of plants from diseases and pests and harvesting are demonstrated. The unique thing about the DP is that the whole complex of agro-technical methods from planting to harvesting is presented.

Work on the DP is implemented together with specialists from the Centre for Agrarian Sciences and Advisory Services of the Irrigation Institute, Agricultural Institute and Pastures Institute. As different aspects of agro-systems are interconnected, all problems of land management should be solved systematically. The Rural Advisory Service offers advisory services to farmers. Within the framework of this project, "farmers days" are organized, during which training courses and seminars are held. Scientifically justified and guaranteed technologies of cropping are shown to farmers and all the agro-technical methods necessary for cropping are described. For farmers, simple and inexpensive technologies, for example, on the development of schedules and regimes of watering are selected. Issues of irrigation and related innovation technologies are of particular interest to farmers.

[50] In the same place
[51] According to the opinions of officials from ministries and executive bodies expressed in interviews conducted during the survey (See interviews 27,28,8,9,42)
[52] Focus Group with economic entities, interview with a representative of the MEE
[53] Focus Group with economic entities
[54] In the same place
[55] Interview with a representative of the National Statistics Committee and Ministry for the Economy and Industry

At the same time, farmers share their experience and demonstrate their own methods of working. In 2004, 6 farmers days were organized.

Together with specialists from the Centre for Agrarian Sciences, farmers implement scientific technologies directly on their lots. To this end, a list of contact farmers (15 farmers in 2004) with whom specialists work closely during the whole agricultural cycle from ploughing and sowing crops to harvesting, was drawn up. Cooperation between specialists and farmers is implemented not only in the form of an initial demonstration of agricultural technologies, but in the form of further consultations and monitoring the technologies implementation by the farmers. A set of measures on how to organize a DP, conduct farmers days, RADS consultations and cooperation is a bridge between scientific technologies and practical agricultural activity. At the same time, bilateral communications are established as farmers not only receive information about using these technologies, but also have an opportunity to share their own technologies and get the recommendations of specialists.

With the implementation of new technologies of sowing, watering, Chemicalization etc. farmers achieve two objectives simultaneously: increase crop yields (economic return) and rationally use land/water resources to conserve land fertility and reproductive capacity. Thereby, such measures play an important role in the implementation of obligations under the Convention to Combat Desertification.

Implementing new technologies depends on the capacity of the population to manage agricultural resources. In this connection, the issue of joint community-based management of land and water resources becomes the key one. The success of implementing any scientific technology depends on how the population will agree on water distribution, livestock grazing, provision of fertilizers etc. According to one of the specialists[56], activities by WUA are better organized in southern regions of the country as a lack of fertile land and irrigation water make farmers use the advantages of joint land and water management more actively.

Case-Study 5 – Studying the impact of institutional capacities and donor assistance on the implementation of obligations under the conventions in the Issyk-Kul Biosphere

The availability of a large number of donors and international programmes for the Issyk-Kul region during the last 10-15 years has had an effect on the situation in this area.

In accordance with the Decree of the President of the KR dated 7th February 2004 on implementing a pilot Decentralization of State Management and Development of Local Self-Governance project in Issyk-Kul Oblast, the authorities for controlling, regulating and financing executive functions of area structures and subdivisions of most ministries and departments were delegated to the oblast administration. Implementation of the experimental project radically changed the management structure of the region. As regards nature protection and nature management, the following authorities were delegated to the Issyk-Kul oblast administration:

- appointing the heads of territorial subdivisions of the MEE and SFS;
- approving the structure, and established size of subdivisions of the MEE and SFS;
- granting licenses and permits for hunting and fowling in accordance with the current quotas;
- determining the norms of deforestation and use of fish reserves;
- controlling the use of financial resources of the Nature Protection Fund of Issyk-Kul oblast;
- controlling the provision of land for ownership and use in the oblast.[57]

Therefore, most of the executive functions on nature protection and nature management are controlled not by the central bodies of the MEE and SFS, but the oblast administration. In fact, it means that the headquarters of the MEE and SFS determine only common environmental policy, while the oblast administration is busy organizing particular nature conservation measures. The oblast administration

[56] Interview with a representative of the MAWRPI
[57] Decree # 48 of the President of the KR dated 7th February 2004

has achieved significant autonomy in implementing environmental measures at local level in the area of land use, including allotting and controlling the use of land in the resort and recreation zone and also in taking into account environmental issues in developing tourism and the resort and recreation area of the oblast.

According to the official formula, this reorganization of the system of state management will increase the effectiveness of joint activities of central, oblast, and rayon executive bodies, raise the role and responsibility of heads of local state administrations in solving ecological problems and implementing the necessary ecological measures at local level (monitoring the state of the environment, tree felling, agro-technical measures etc.) and enhance the capacity of the oblast administration to coordinate the processes of social and economic development of the region taking into account the special ecological status of the region.

One of the main reasons for the decentralization policy is to take concrete and effective measures for the social and economic, mainly tourism, development of Issyk-Kul oblast. To achieve this an overall development scheme for the Issyk-Kul area was worked out with support from JICA, the Japanese Development Agency, in which almost all aspects of the economic development of the region (tourism infrastructure, attracting direct foreign investment, industry, agricultural sector, communications etc.) are considered. Therefore, reform of the decentralization of state management and the current strategic plans for development of the region are aimed at significantly extending and using the tourism potential of the region, but in this case, the possible consequences of this activity on the ecosystem of the region have not been taken into consideration.

In the General Plan developed by JICA there is an ecological justification and based on the results of the ecological assessment of the MEE, the plan shows that there will be no negative consequences on the ecosystem of Issyk-Kul from the planned measures to develop the tourism infrastructure, industry etc. However, a number of ecologists have some doubts about the reality of the indicated ecological conclusions if the scale of construction and repair of tourism centres, sanatoria, hotels and other tourism and leisure complexes foreseen in the framework of the plan, are taken into account. Moreover, taking into account the present condition of the ecological services monitoring ecosystems, it is impossible to give an objective assessment of their condition and risks of anthropogenic impact on ecosystems now and in the future.

In spite of Issyk-Kul being designated a biosphere reserve, the state, with the help of international donors, plans large-scale economic development of the region. At the same time, the rhetoric of sustainable development as an environmentally safe form of development is widely used, though implementation of large-scale measures to develop the economy of the region will undoubtedly impact on the ecosystem. Therefore, the state uses the image of the lake as ecologically pure to attract financial resources through the development of tourism, industry and the agricultural sector that in future will undoubtedly be reflected in the state of the environment. For example, in the JICA overall development scheme it is noted that the present condition of the ecosystem of the region is good due to a lack of strong pollutants (industry, vehicles) and this is a powerful factor in favour of tourism development. In the projects planned to develop the economy, the state will play the role of minimizing negative ecological consequences for the region[58] that in practice may be only good intentions.

The main change to forestry in the region has been the setting up of the Issyk-Kul Tokoyu state enterprise, which is involved in reselling forestry resources (wood, young trees, firs etc.). It is clear that the most profitable product here is timber and at the same time, wood is the subject of conflicts between the SFS and the oblast administration. In the opinion of an independent expert, setting up Issyk-Kul Tokoyu is part of a general process of financial resources redistribution at oblast level[59]. Therefore, Issyk-Kul Tokoyu becomes the financial mechanism, which will enable the oblast administration to implement

[58] Studies of the JICA General Scheme of Development of the Issyk-Kul Area in the KR, September 2004

full control over the forestry branch.

In this context, the position of an employee of the headquarters of the SFS, which in general characterizes the position of this body, is clear. He notes that decentralization of the forestry sector in Issyk-Kul oblast has not produced positive results. In particular, after Issyk-Kul Tokoyu was set up, the forestry service lost additional financial resources for their needs (forestry engineering, regeneration measures etc.) as this enterprise purchases wood at less than the market price of 1,200 som per cubic metre and resells it for 2,200 som. At the same time, the additional funds from reselling do not reach the forestries themselves.39 At the same time, an authoritative employee of the oblast administration noted that Issyk-Kul Tokoyu will stop the illegal felling and selling of timber and contribute money to the national treasury. The oblast administration understands that selling timber and forestry products generate significant financial resources and Issyk-Kul Tokoyu is considered as the source for receiving additional financial resources for the forestry sector by the state[60].

Conflicts between the SFS and the administration of Issyk-Kul oblast are not solely about selling timber. The human resources policy implemented by the oblast administration is also a source of conflict. Regular rotation of workers in ecological posts and directors of forestries is implemented in the oblast. In accordance with the Regulation on oblast administration, these measures are necessary to prevent illegal acts by inspectors of ecological posts and also to adjust collections raised by ecological structures[61]. In the opinion of one of the heads of the oblast administration, the measures undertaken by the governor to rotate forestries' directors and human resources policy, in general, have not only stopped timber poaching, but helped increase the liability of employees of territorial subdivisions for their work. The fact that the governor approves the structure and the established size, and has the right to dismiss heads of nature conservation services, exempts the headquarters of ministries/agencies from exercising control over local executive structures. According to the same employee of the oblast administration, headquarters does not always adequately assess the needs and problems of oblasts that are regional specific and that leads to very ineffective implementation of functions at local level, waste of resources and general corruption at oblast level. Now, after the implementation of decentralization, the oblast administration works closely with all services of the region and studies carefully the structure and human resources aspect using the results of the UNDP functional analysis. These measures have already produced significant results as the optimisation of all oblast structures has enabled the number of those "who only eat the budget pie" to be reduced.[62]

According to the position of the SFS, the rotation of directors of forestries, leads to the unjustified dismissal of employees and frequent changes in the heads of forestries. According to one employee of the SFS headquarters, chaotic changes in personnel prevent professional development and the interest of employees in long-term career development. In its turn, it may provoke large-scale corruption, as, apart from starvation level wages, employees of forestries have no guarantees of sustainable and long-term employment. This also does not promote effective implementation of functions at local level, as directors of forestries are not able to understand the way enterprises work before they are dismissed. In the opinion of the same employee of the SFS, decentralization in Issyk-Kul oblast has not produced any positive results for the forestry sector[63].

The results of the pilot project on decentralization have revealed the presence of conflicts of departmental interests, which have been clearly displayed in issues of the delegation of powers to the oblast administration on forests and forestry products management, human resources policy and financing. The conflicts over departmental interests cover different directions of activity, mainly those where material resources are potentially concentrated (forest management, implementation of ecological activities at the expense of donor funds, environmental projects under donor support etc.).

[59] Interview with a representative from an NGO.
[60] Interview with a respondent from the State Forestry Service
[61] Interview with a representative of the Issyk-Kul oblast administration
[62] Regulation #102 of the State Administration of Issyk-Kul oblast dated 22nd June 2004
[63] Interview with a representative of the oblast administration of Issyk-Kul oblast

Such resource spheres as management of the financial resources of the Environmental Protection Fund, control over the sale of forestry products, issuing permits and licenses for hunting and fishing, levying collections at eco-posts etc. are causes of conflict between state structures. The decentralization project in Issyk-Kul oblast has changed the status quo in the political area and indeed, delegated the power of resource management from one bureaucratic structure to another. In relation to control over resources, the governor has gained large powers, first of all, in the area of tourism (state control over granting land for resort and recreation areas, collection of taxes from the current recreation assets and rest homes).

With decentralization a political and management reality, the focus of power has changed, particularly as regards the nature conservation sector of the region, in which the forestry service is attractive because of the opportunity to control the sale of timber. The Environment Protection Department is attractive because of the financial resources of the Nature Protection Fund and the overall management of the biosphere area of Issyk-Kul is attractive because of collecting the levies at eco-posts. Many ecological services have neither the legal, nor resource capacity to effectively implement the established nature conservation functions[64]. Currently, they are either assets for deriving resources from, or a convenient formality, which is used when issues of ecological security arise. Real implementation of measures on ecological monitoring, forestry, nature protection and the quality of their implementation remain undone. Technical facilities, salaries in forestries, the hydro-meteorological service and MEE services are at the same symbolic level as decentralization. The main reason is that the authorities and competence of these management institutions and nature resources management are far from transparent and often inadequate. Conflicts of interest in Issyk-Kul oblast between the main parties, including fishing sector managers and inspectors of the nature conservation agency, lead to frequent conflicts.[65]

Since the launch in the Kyrgyz Republic of the pilot project on decentralization, a number of changes have been made in the legislation covering the issues of regional development, human resources policy, the procedure for implementing joint works by the MEE, SFS and their territorial subdivisions, as well as relations between oblast services of the ministries and the Issyk-Kul oblast administration.. So, in addition to the law On Biosphere Territories in the Kyrgyz Republic and the Regulation On the biosphere territory of Issyk-Kul, the law On Sustainable Development of Ecological and Economical System of Issyk-Kul determining the new Regulation on the legal regulation of economic activity, restrictions on economic activity and nature resources management for recreational purposes in the region, have been adopted.

As a result, the balance between the economy and ecology once again leans in favour of the economy and the struggle against poverty is to the forefront.

[64] Interview with a representative of the State Forestry Service
[65] Interview with a representative of GTZ

From the interview with a representative of an international organization:
"After signing the Convention on Biological Diversity in 1996 big investment and technical projects were launched, such as our GTZ Project, the GEF Project on West Tien Shan Biodiversity Conservation, TACIS etc. It follows that donor organizations give money for this. However, in 95-96 the state was young and less attention was paid to environmental conventions".

From the interview with another respondent it became clear that the consolidation of efforts, in Ministers' opinions, is the ideal "civilized approach":

"We talk about three conventions, but there are some other ones, for example, the Ramsar Convention. Again, this year they gave our republic a grant for work on Son-Kul and Chatyr-Kul. Just last week I received a letter from the Ramsar Secretariat and we should not only be locked in by the Convention on Biodiversity, but participate in such conventions as Ramsar. There is an organization for the genetic resources of plants, with its office in Rome, Italy. We have started corresponding with this organization. We need to implement a civilized approach".

In the State Forestry Service, an FAO Project is being implemented, which is aimed at harmonizing national and international legislation. This is necessary because all the laws were old, even dating from the Soviet period including Laws on: Environmental Protection, Strictly Protected Nature Territories, Water, Land, Land Code, Forestry Code etc.

"Everything had to be changed when we faced the old laws. We had to make changes to meet modern requirements. For example, there was no law on biosphere territories. UNESCO adopted the idea of biospheres in 1974. In essence, the idea of creating biospheres came from Germany. They were the first to create biospheres in Russia and then in Central Asia. Our region is considered to be the first that already has the required legislative base, as we had already created the legal framework for a functioning biosphere. We adopted a law and by-laws. For example, in our work these laws guide our General Directory. In the Law on Strictly Protected Areas there are a lot of new things and now a new draft of this Law with all the present realities is being developed"[66].

"As regards to listing Endangered Species, the Red Book and other aspects of biodiversity, all these are made within strictly protected nature reserves. Now, a methodological aid called How to Keep a Nature List have been issued. The State Forestry Service already requires these in all reserves and protected areas. The Biological and Soil Institution is now preparing the regular Red Book and the State Forestry Service is helping find financing for its publication. In principle, it has already been prepared by scientists from the Biology and Soil Institution and other institutions of the Academy of Sciences"[67].

Case-Study 6 – Studying the decision-making system of using nature resources in economic activity: Chatyr-Kul Lake

In 2003, after receiving the National Report of Kyrgyzstan on the implementation of the obligations under the CBD, the Secretariat of the Convention discovered a reduced number of OXT in the country and asked for explanations. It was found that "the lost" unit of the SPNT was Chatyr-Kul Lake, which in accordance with Government Regulation #694 dated 4th November 2003 was changed from a specially protected nature reserve to the category of a fishing reserve of national importance because it contained so many valuable species of fish.
Ecological nongovernmental organizations, in particular, Independent Ecological Assessment and Biom were opposed to this decision. The NGOs showed that the adopted decision contradicts a number of

[66] Interview with a representative of the MAWRPI, and a representative of an NGO
[67] Interview with a representative of GTZ

international documents ratified by the state, for example, the Ramsar Convention on Wetlands, the CBD and in general threatens the unique ecosystem of Chatyr-Kul Lake.

Chatyr-Kul Lake is a high mountain lake and is a stopover for migrating birds, including a number of rare and endangered species such as, the Indian goose. That is why the decision to change the status of the lake has not only a local effect, but may impact on the condition of biodiversity on a global scale.

The idea of fish breeding has reappeared. According to fish breeding specialists, in Soviet times scientists from the Fish Breeding Research Institute carefully studied the opportunities for commercial fish breeding and catching fish on Chatyr-Kul Lake, but a number of geographical and biological factors (remoteness and difficult access, fresh water and total frost penetration in part of the lake in winter) led to it being rejected as economically unprofitable.

However, specialists of the MAWRPI subdivision got another Governmental decision to give Chatyr-Kul Lake the status of a fish-breeding site.

A number of specialists from nature conservation agencies are totally opposed to this decision. An official of the MAWRPI said that the decision was prepared by the Government and other agencies could not influence its adoption, and they became aware of it only after it was published as a Regulation of the Government. No officials were aware of the economic justification for fish breeding, which the initiator, the MAWRPI, had briefed members of the Government.

In the opinion of a number of officials of the State Forestry Service and ecologists from public organizations who are sympathise with them, no ecological assessment necessary for taking such a decision was conducted, but even without the assessment specialists knew that irreparable harm could be done to the unique biodiversity: primarily migrating birds – Red Books species (for example, the Indian goose).

The exact opposite evaluation is given by specialists and managers of the MAWRPI: they describe very attractive economic prospects (concrete figures are given: every year 500 tons of fish will be caught in Chatyr-Kul Lake) that, in the opinion of the Minister, will excellently combine with nature conservation activity and the development of scientific activities in the sphere of biodiversity conservation. Moreover, officials of this agency think the issue was carefully considered and justified. Employees of the fish service are even more optimistic and consider fish breeding does not cause damage to nature and for the population it promises only welfare and benefits. The risk of exterminating wild birds seems to them far-fetched as it contradicts to their own experience of interaction with nature.
The Resolution of the Government giving Chatyr-Kul Lake fish breeding status met a degree of opposition within the Government itself and this issue is still unresolved.

The Head of the State Forestry Service considers that there is no reason to worry. It is remarkable that in the chief agency for biodiversity conservation they are so certain that if 'ecologically harmful activities are implemented, we will terminate them'. In other words, until the risk is proven there is no need to worry.

Case-Study 7 – Alliance of Mountain Communities of Central Asia (AGOCA): studying the role of consolidating local communities' efforts in the advancement of sustainable development and synergy results of donor assistance

The Alliance of Mountain Communities of Central Asia (AGOCA) is a unique sub-regional organization aimed at promoting the sustainable development of mountainous regions of Central Asia, and therefore, making a contribution to increasing the living standards of Central Asian populations. 2004 was the first year AGOCA actively functioned in Kyrgyzstan, Tajikistan, and Kazakhstan, as villages and communities of all three countries are members of this alliance. AGOCA was established, mainly thanks

to the financial and technical support of the Central Asian Mountain Partnership Programme (CAMP). This Programme implemented by the Swiss Development Corporation works in Central Asia (Tien Shan and Pamir) and has the following objectives:
promoting sustainable and multifunctional use of mountain resources of Central Asia, namely, in Kyrgyzstan, Tajikistan, and Kazakhstan;
promoting the understanding that sustainable resources management will lead to improved living conditions for the majority of the poor population of mountain regions;
rendering resource management assistance together with other international organizations and associations to inhabitants of mountain regions in a more sustainable manner from the economic, social, and environmental points of view.

The main working principles of the CAMP Programme are awareness, protection, informing, and developing a partnership network. In 2002, CAMP through the DomGor Programme, created a platform for experience exchange and results obtained in all aspects related to the mountains of Kyrgyzstan through monthly exhibitions, lectures, seminars, publications and discussions. In 2002, CAMP together with the Central Asian Regional Environmental Centre (CAREC) organized the first conference of Central Asian mountain villages in Bishkek, where the concept of the future development of the Central Asian Alliance of Mountain Communities was discussed. In June 2003, the Alliance of Mountain Communities of Central Asia was established in Dushanbe and also registered in the Kyrgyz Republic. The idea of creating a regional network of mountain communities occurred in 2002 during the first conference of representatives of mountain villages in Bishkek. "Then we listened to a speech by representatives of the Alpine Alliance"[68], says the President of AGOCA Ishenbek Musahodjaev. "We were inspired by the idea of setting up the second Alliance of Mountain Communities in the world".
At the third conference of AGOCA in October 2004, 6 villages-candidates joined the Alliance and 2 of them have already become members of AGOCA. Currently, the Central Asian mountain family unites 20 villages (5 from Kazakhstan, 9 from Kyrgyzstan and 6 from Tajikistan).

The most important aspects of AGOCA activity in 2004 were connected with its formation, and development, public awareness, conducting annual conferences, attracting and accepting new villages through organizing TPC etc.
TPC pay great attention to the issues of ecology and environmental protection. One of the main projects of AGOCA is the creation of nurseries and parks in mountain regions and restoring gardens. These projects on planting greenery and also projects connected with solving the problem of waste processing and the development and implementation of alternative energy sources were supported by the Small Grants Mountain Development Programme with the assistance of CAMP and GTZ-CCD. Recycling domestic and farm waste is one of the most acute problems, as well as searching for alternative energy sources and opportunities for energy supply. Specialists give training seminars for local communities.

CAMP provided small grants of $ 500 to form TPC. The TPC, which managed to invest their funds the most successfully, have already grown in confidence, particularly in comparison with the previous year. The scope of their activities includes support for poor families, the development of new housekeeping strategies, the promotion of experience exchange, payment of business trip expenses of TPC representatives and arranging meetings with specialists in accordance with different initiatives.

According to TPC members, fellow-villagers, state and other organizations have come to treat TPC with more confidence. Each TPC used its funds in a different way: in some villages funds were spent on creating an information centre, in other villages for the procurement of nanny goats, trees, or wheat for sowing. The success of these projects was conditioned by the result of the work of fellow-villagers themselves and the support of aiyl okmotu (provision of equipment, premises, or land). An obligatory condition of the project was the sustainability of investments. For example, the purchased nanny goats were distributed among poor families on condition they return the nanny goat and keep its offspring

[68] In the same place

and in information centres computer courses for young people were organized. Moreover, the funds of each TPC continue to increase due to membership fees. Village TPC have become ever more important sources of ideas and an incentive for working together.

One of the main tasks of AGOCA in 2004 was to play an active role in the process of decentralization taking place in Kyrgyzstan. In this context, particular attention was focused on information and experience exchange between TPCs. With CAMP support an AGOCA Information Pamphlet for all concerned parties and during 2004 a quarterly AGOCA journal were published and information centres were equipped with stands and AGOCA publications with the help of rural NGOs and aiyl okmotu.

Partnerships

In Kyrgyzstan AGOCA consults the Research Institute of the Academy of Sciences about land management. Joint projects are being implemented about using methane-bearing waste, which significantly improve organic fertilizers. In mountain communities, including in villages-members of AGOCA modular seminars of the CAMP Self-Instruction Programme on the principles of sustainable development based on the ALS method (Autodidactic Learning for Sustainability) including such topics as, Heat insulation of a house in a village, are held. Now, village inhabitants can spend the winter in a warm house and heating expenses have been reduced. In Kyrgyzstan, Kazakhstan, and Tajikistan several pilot projects on heat insulation of houses and the construction of energy-saving houses, have been implemented.

CAMP has been the main organization supporting AGOCA since its establishment. The Central Asian Regional Environmental Centre (CAREC) supported the first conference of the Alliance and both organizations intend to continue cooperation. Partnerships between AGOCA and GTZ/CCD are aimed, in general, at participation in the Small Grants Programme and are connected with the planting of greenery and other ecological activities under the project to prevent desertification and increase standard of living of mountain communities.
The partnership of AGOCA with the International Centre for Not-for-Profit Law (ICNL), which was established by USAID and registered in Washington (USA), promotes increasing local communities legal awareness.

AGOCA has established partnerships with the Aga Khan Foundation (in Tajikistan), Soros Foundation (in Kazakhstan), CAREC (Central Asian Regional Environmental Centre), The E. Gareev Botanical Gardens of the NAS of the Kyrgyz Republic and also with aiyl okmotu and rural community organizations.

The main intention of AGOCA in the coming years is the establishment of mutual understanding and partnerships with local self-governance bodies and state structures (particularly, at rayon and oblast level) to improve the situation in villages through planning and implementing effective projects and conflict resolution.

Regular discussions and round tables of AGOCA members with international organizations, representatives of state structures and village inhabitants, will be implemented in 2005-2006 within the framework of the Dialogue Project. Attention will be paid to such issues as skills in drawing up project proposals, attracting partners, undertaking explanatory activities about the importance of jointly solving common problems, permanent monitoring of activity and reports at general meetings. A TPC representative noted that, "every villager should understand that it is impossible to do something alone and we should carry them out with a common idea and convince them that it can give real benefit to everybody".

The main focus of Alliance activity will be strengthening the network of village representatives through experience exchange, presentations by TPS, publication of the White Book (The White Book is a database of successful projects implemented by AGOCA villagers in the three republics). Its main purpose is to show villagers real examples of development projects, which can motivate villagers to develop their own

villages. The projects implemented using small grants are brought to the attention of readers and the most important thing is that villagers themselves initiated them all. The first edition has been published, but work on expanding
'the experience box' continues.

Conclusions:

1. AGOCA is an example of the successful mobilization of local communities with support from international donors not only on issues of poverty alleviation and economic development of villages, but also on issues of ecological education, adaptation and implementation of new energy-saving technologies, management schemes and effective information channels.
2. Some donors have participated in the development of AGOCA and their cooperation within the framework of AGOCA is a successful example of donor synergy in the implementation of the 3 global ecological conventions.
3. The creation of AGOCA proves that successful cooperation between the political and management system and local/territorial communities to solve problems of resource management, agricultural development planning and also lobbying the interests and decisions of local communities on issues of nature management, economic and ecological development, is possible.

ANNEX 4

SUMMARIZED CHARACTERISTICS OF PILOT PROJECT PROPOSALS AIMED AT CAPACITY BUILDING

Implementing future basic activities stipulated in the Action Strategy aimed at national capacity building to implement global ecological conventions, basically depends on their financial support. The limited financial resources of the country cannot provide an adequate volume of investments to implement these activities. At the same time, international financial institutions support the initiatives of developing countries by developing pilot projects aimed, in particular, at overcoming and mitigating the consequences of climate change, processes of desertification /land degradation and biodiversity reduction.

With regard to the above-mentioned circumstances within the framework of the NCSA project phase, which is now ending, a set of proposals aimed at pilot projects' implementation to be financed by international organizations, was developed. It is assumed that implementing these proposals will make an additional input into achieving the main goals and objectives and enable synergies of the national interests and investment possibilities and operational programmes and strategic priorities of GEF.

Indicators of the successful implementation of the activities stipulated in the pilot projects will be specific results in the area of mitigating the processes of climate change, desertification / land degradation, decreasing biodiversity as a whole and in the area of environmental conservation and nature management improvement.

The project proposals format and their thematic area correspond to the main GEF strategic priorities and capacity building directions specified in the Strategy (Table 1.2).

In total 11 pilot project proposals were drawn up aimed at specific results in the area of the three global ecological conventions and corresponding to six GEF strategic priorities and also covering all six priority capacity building directions.

Below the characteristics of the pilot project proposals are summarised, which specify their name and goals; thematic areas, supported by GEF; budget and the expected main results. The detailed version of the project proposals within the GEF requirements format is scheduled to be sent for consideration by the GEF Secretariat as applications for financing.

LIST OF PILOT PROJECT PROPOSALS

1. Eliminating barriers to using renewable sources of energy (solar) by means of improving solar ray observations in Chui and Issyk-kul, oblasts.

GEF strategic priorities for the main areas and other programmes: Climate change. CC-4 Productive use of renewable energy.

GEF existing operational programmes: OP 6 Climate change. Promoting the adaptation of renewable sources of energy through eliminating barriers and decreasing implementation costs.

Budget: $ 495 000; GEF $ 245 000

Main result: Efficient systems of collection, assessment and dissemination of information about climatic factors will be created enabling productive use of renewable energy.

2. Assistance to the KR in monitoring climatic conditions and their change.

GEF strategic priorities for the main areas and other programmes: Climate change C.C-4. Productive use of renewable sources of energy.

GEF existing operational programmes: OP 6 Climate change. Expanding the use of renewable sources of energy by eliminating barriers and decreasing implementation costs.

Budget: $ 2.7 million

Main result: Efficient systems of collection, assessment and dissemination of information about climatic factors will be created.

3. Eliminating barriers to carrying out activities aimed at climate mitigation through conducting an energy saving policy and applying energy efficient technologies in the area of heat-and-power engineering in the KR by means of installing heating meters in people's homes.

GEF strategic priorities for the main areas and other programmes: Climate change CC-3. Policy in the energy sector within the framework of support of renewable energy and energy saving.

GEF existing operational programmes: OP 5 Climate change. Eliminating barriers to energy saving and energy efficiency.

Budget: $ 1.525 million, GEF 0.525 million

Main result: The system of valuing and paying for heating and hot water will be based on actual consumption of energy, i.e. market barriers to energy efficiency will be eliminated. The system will be created based a normative and legislative base to enable energy efficiency.

4. Catalysing the sustainability of wetlands in the Issyk-kul biosphere by means of creating public reserves

GEF strategic priorities for the main areas and other programmes: Biodiversity. BD-1 Catalysing protected areas' sustainability.

GEF existing operational programmes: OP2 Biodiversity: shore, sea and freshwater ecosystems, including wet areas.

Budget: $ 139 thousand, GEF – 49 thousand

Main result: They will be created and adapted into the system of biosphere public wetland reserves.

5. Environmental improvements in the course of the nesting season of water fowl, including rare and disappearing species Son-kul high mountain Lake in the KR.

GEF strategic priorities for the main areas and other programmes: Biodiversity. BD-1 Catalysing protected areas' sustainability.

GEF existing operational programmes: OP2 Biodiversity: shore, sea and freshwater ecosystems, including wet areas.

Budget: $ 24000, GEF – 11500.

Main result: A safe zone for nesting mountain geese and other waterfowl and a permanent system for informing students about biodiversity value will be created.

6. Catalysing the sustainability of protected areas in the inner Tien-Shan in the KR

GEF strategic priorities for the main areas and other programmes: Biodiversity. BD-1 Catalysing protected areas' sustainability. EM-1 Integrated approach to ecosystems' management.

GEF existing operational programmes: OP 2 Biodiversity: forest ecosystems. OP 4. Biodiversity: mountain ecosystems.

Budget: $ 5500, GEF – 2500

Main result: A nursery of Tien-Shan spruce saplings and a system for permanently informing students about their biodiversity value will be created.

7. Launching sustainable land management through supporting remote pasture livestock grazing in the KR.

GEF strategic priorities for the main areas and other programmes: Sustainable land management. SLM-2 Introduction of innovative and local practices for sustainable land management.

GEF existing operational programmes: OP 15. Land degradation: sustainable land resources management. OP 4. Mountain ecosystems.

Budget: $ 253270, GEF – 111100

Main result: A partnership system of sustainable pastures' management
based on traditional livestock grazing will be created.

8. Eliminating barriers to improving the environmental management system in the KR in order to achieve more comprehensive implementation of global ecological conventions

GEF strategic priorities for the main areas and other programs: Integrated approach to ecosystems management. EM-1 Integrated approach to ecosystems management; Capacity building. CB-2 Crosscutting capacity building.
GEF existing operational programmes: OP 12. Integrated ecosystems management.

Budget: $ 915 000, GEF – $ 410 000

Main result: The environmental management system will be set up and maintained in accordance with international ICO –14000 standards.

9. Modernising the system of national statistics reporting on capacity building for implementing obligations of the KR under GEC.

GEF strategic priorities for the main areas and other programs: Integrated approach to ecosystems management. EM-1 Integrated approach to ecosystems management; Capacity building. CB-2 Crosscutting capacity building.

GEF existing operational programmes: OP 12. Integrated ecosystems management.

Budget: 250 000; GEF – $ 105 000

TABLE 1

Coordination of thematic areas of pilot project proposals, GEC operational programmes and strategic priorities

Project proposals (see list below)	GEC operational programmes							GEC strategic priorities						Priority capacity building directions					
	ОП2	ОП3	ОП4	ОП5	ОП6	ОП12	ОП15	BD-1	CC-3	CC-4	SLM-2	CB-2	EM-1	1	2	3	4	5	6
1					+					+							+		
2					+					+							+		
3				+					+					+	+	+			
4	+							+									+		
5	+							+									+		
6	+	+						+					+				+		
7			+				+				+						+		
8						+						+	+	+	+				+
9						+						+	+		+			+	
10						+						+	+	+		+			+
11						+						+	+						+

1. Eliminating barriers to using renewable sources of energy (solar) by means of improving actinometrical observations in Chui and Issyk-kul oblasts.
2. Assistance to the KR in monitoring climatic conditions and their change.
3. Eliminating barriers to carrying out activities aimed at climate mitigation through conducting an energy saving policy and applying energy efficient technologies in the area of heat-and-power engineering in the KR by means of installing heating meters in people's homes
4. Catalysing the sustainability of wetlands in the Issyk-kul biosphere by means of creating public reserves.
5. Environmental improvements in the course of the nesting season of water fowl, including the rare and disappearing species Son-kul high mountain Lake.
6. Catalysing the sustainability of protected areas in the inner Tien-Shan.
7. Launching sustainable land management through supporting remote grazing of livestock in the KR.
8. Eliminating barriers to improving the system of environmental management (SEM) in the KR in order to ensure more comprehensive implementation of global ecological conventions.
9. Modernising the system of national statistics reporting on capacity building for implementing obligations of the KR under GEC.
10. Kyrgyzstan – improving local government activity in developing and implementing ecological programmes.
11. Crosscutting capacity building for implementing Kyrgyzstan's obligations under GEC through educating and informing people in the interests of sustainable development.

TABLE 2

Supported by pilot proposals in thematic areas

GEF operational programmes	GEF strategic priorities	Kyrgyzstan's priority capacity building directions to implement obligations under GEC
OP2. Biodiversity: Shore. Sea and freshwater ecosystems (including wetlands)	Biodiversity: BD-1 Catalysing the sustainability of protected areas	Direction 1 Improve the normative and legislative base
OP 3. Biodiversity: Forest ecosystems	Climate change: CC-3 the energy sector within the framework of support of renewable and efficient energy	Direction 2 Strengthening institutional capacity
OP 4. Biodiversity: Mountain ecosystems	Climate change: CC-4 Productive use of renewable energy	**Direction 3 Improving the system of economic regulation**
OP 5. Climate change: Elimination of barriers to energy saving and energy efficiency	**Integrated approach to ecosystems management:** **IM-1 Integrated approach to ecosystems management**	**Direction 4 Nature management infrastructure strengthening and improving technological support**
OP 6. Climate change: Promoting the adaptation of renewable sources of energy through eliminating barriers and decreasing implementation costs	Integrated land management: SLM-2 The introduction of innovative and local practices for sustainable land management	Direction 5 Enabling control over natural resources condition and use
OP 12. Integrated ecosystems management	Capacity building: CB-2 Crosscutting capacity building	Direction 6 Strengthening informational and educational capacity
OP 15. Land degradation: Sustainable land resources management		

ANNEX 5

Materials of the of the National Capacity Self-Assessment for Global Environment Management in Kyrgyzstan project were approved and discussed at the following national and international workshops, conferences and meetings

1. The First Regional Seminar on the Improvement and Standardization of Legislation on Strictly Protected Natural Territories in Uzbekistan, Kazakhstan and the Kyrgyz Republic (Bishkek, February 2-4, 2004);
2. The round table meeting on the new version of the Conception of Forestry Development project (Bishkek, February 10, 2004);
3. The Inception workshop of the National Capacity Self-Assessment for Global Environmental Management (Bishkek, February 18, 2004);
4. The international workshop of the EuropAid (TACIS) West Tian-Shan Biodiversity Conservation project (Bishkek, March 18, 2004);
5. The regional seminar of the GEF Small Grants Program for European Countries (Bishkek, April 23, 2004);
6. The GEF workshop National Dialogue: GEF in the Kyrgyz Republic (Issyk-Kul, April 27-29, 2004);
7. The third national forum on Millennium Development Goals: Poverty Reduction and Social
8. Mobilization (Bishkek, May 13, 2004);
9. The seminar Technological Needs Assessment, arranged through the GEF/UNDP Kyrgyz Republic Climate Change Enabling Activities project (Bishkek, June 3, 2004);
10. The Round Table Meeting on Participation of Civil Society Institutions in the Implementation of the Convention to Combat Desertification (The Friedrich Ebert Foundation, Bishkek, June 11, 2004);
11. The introductory seminar on the UNEP project National and Sub-regional Strategies for the Sustainable Development in Central Asia (Thailand, July 2-3, 2004);
12. The round table meeting Interdepartmental and Intersectoral Partnership and Capacity Strengthening in the Process of Implementation of Central Asia Initiative in the Kyrgyz Republic (coalition Partnership Initiative under Support of RECCA, Bishkek, September, 15 2004);
13. The NSCA Regional Seminars for European Countries and CIS (Slovakia, September 27-29, 2004);
14. The seminar Global Ecological Conventions: Interaction at the National Level (Secretariat of the Convention to Combat Desertification, NSCA-Kyrgyzstan Project, MAWRPI in Bishkek, October 18-20, 2004);
15. The conference Poverty Reduction Capacity Building through the Development of Local Communities in Rayons, Affected to Ecological Degradation in Central Asian Region (UN Unit of Economic and Social Affairs, International University of Kyrgyzstan, Bishkek, October 19, 2004);
16. The regional seminar for European Countries and the Commonwealth of Independent States (Germany, November 25-27, 2004);
17. The Regional Forest Congress (Bishkek, November 25-27, 2004);
18. The UNDP International Round Table 'Debt-For-Environment Swap with participation from international consultant Leida Mercado (December 3, 2004);
19. The conference of the Contracting Parties to the Framework Convention on Climate Change (Buenos Aires, Argentina, December, 2004);
20. The national meeting Sustainable Land Management in the Pamirs and Pamirs-Alai Mountains for Kyrgyzstan and Tajikistan (Bishkek, December 24, 2004);
21. The Preparation for Emergencies and Response to Ecological Safety Risks in the Central Asian Region (Bishkek, December 24, 2004);
22. The NSCA Sub Regional Workshop for theCentral Asian Countries (Bishkek, January 25-26 2005);
23. Round table meeting on the Discussion of the Results of the cross-cutting analysis (Bishkek, February 21, 2005);

24. The Round table the role of civil society in development and implementation of National Poverty Reduction Strategy for 2006-2008 (Bishkek, March 2005);
25. The Work Meeting on the component "Environment protection for sustainable development" of the UNDP Country Programme for 2005-2010
26. The inception workshop of the Capacity Building and Environmental Governance Strengthening for Sustainable Development Project (Bishkek, April 27 2005);
27. The II meeting of parties on access to information: the Aarhus convention (Almaty May 2005);
28. II Consultative Meeting on Identification of Criteria and Selection of Project Proposals for the The External Debt for Sustainable Development Swap in the KR (Bishkek, May 27 2005);
29. The Round Table Poverty and Land Degradation issues (Bishkek, June 2005);
30. The Round Table Consolidation of nature protection measures under problem solving with the Issy-Kul lake (Issy-Kul, June 2005);
31. The working meetings with Ministry of social defense and labor of the KR, Ministry of Health within the Debt for sustainable development swaps output (Bishkek, June 2005);
32. Final workshop of Bio safety project (Bishkek, June 24 2005);
33. The meeting of the Project Steering Committee to implement scheme of the KR debt for nature protection swaps within the framework of the Organization of Economic Cooperation and Development (Bishkek, June 28 2005);
34. The Round Table Insurance of Transparency of the External Debt Conversion of the Kyrgyz Republic (Bishkek, June 30 2005);
35. The Round Table for discussion of the Strategy and Action Plan on Capacity Building for Global Environment Conventions Implementation (Bishkek, July 6 2005).

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The publication was possible thanks to the assistance and all-round support of **Aigul Bolotova**, the project information and PR manager, **Marina Tereshenko, Carine Ter-Akopova**, the financial and administrative assistants, **Saidin Mamytov**, the project driver.