



AN OVERVIEW: A REGIONAL SYNTHESIS REPORT ON ISSUES AND APPROACHES TO COMBAT DESERTIFICATION

DISCUSSION DRAFT

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ABBREVIATIONS

ADB	–	Asian Development Bank
ADF	–	Asian Development Fund
ALGAS	–	Asia Least-Cost Greenhouse Gas Abatement Strategy
ASBP	–	Aral Sea Basin Program
ASSOD	–	Assessment of the Status of Human–Induced Soil Degradation in South and Southeast Asia
BCPR	–	Bureau for Crisis Prevention and Recovery (UNDP)
BHA	–	Basin Hydro-economic Associations
CARs	–	Central Asian Republics
CAREC	–	Central Asia Regional Environmental Center
CBD	–	Convention on Biological Diversity
CCA	–	Common Country Assessment (UN System)
CDF	–	Comprehensive Development Framework
CDM	–	clean development mechanism
CEP	–	Committee for Environmental Protection
CGIAR	–	Consultative Group for International Agricultural Research
CIC	–	National Commission for Implementation of Environmental Conventions
CIS	–	Commonwealth of Independent States
CPT	–	Carbon Permit Trading
COP	–	Conference of Parties
DMC	–	developing member country (of the ADB)
EBRD	–	European Bank for Reconstruction and Development
EU	–	European Union
FAO	–	Food and Agriculture Organization
FP	–	Forestry Principles
FSU	–	Former Soviet Union
GDP	–	gross domestic product
GEF	–	Global Environment Facility
GHG	–	greenhouse gas
GLASOD	–	Global Assessment of the Status of Human–Induced Soil Degradation
GM	–	Global Mechanism of the UNCCD
GNP	–	gross national product
GWP	–	Global Water Partnership
IACD	–	Issues and Approaches to Combat Desertification: Country Reports
ICARDA	–	International Center for Agricultural Research for Dryland Areas
ICAS	–	Interstate Council for the Aral Sea (merged into IFAS)
ICRISAT	–	International Crops Research Institute for the Semi-Arid Tropics
ICSD	–	Interstate Commission for Sustainable Development
ICT	–	Information and Communication Technologies
ICWC	–	Interstate Commission for Water Coordination
IFAD	–	International Fund for Agricultural Development
IFAS	–	International Fund for Saving the Aral Sea
IMF	–	International Monetary Fund
IsDB	–	Islamic Development Bank
ISRIC	–	International Soil Reference and Information Centre
MDGs	–	Millennium Development Goals (UN)
MEA	–	Millennium Ecosystem Assessment
MEAs	–	multilateral environmental agreements
MOU	–	memorandum of understanding
NAP	–	National Action Program under UNCCD
NFP	–	National Focal Point

NEAP	–	National Environmental Action Plan
NGO	–	nongovernment organization
ODA	–	Overseas Development Assistance
ODS	–	ozone-depleting substances
OSCE	–	Organization for Security and Cooperation in Europe
PIP	–	Public Investment Plan
PREGA	–	Promotion of Renewable Energy, Energy Efficiency and Greenhouse Gas Abatement Projects, an ADB RETA
PRSP	–	Poverty Reduction Strategy Paper
POP	–	persistent organic pollutant
PPTA	–	Project Preparation Technical Assistance
RAP	–	Regional Action Program under UNCCD
RCF	–	Regional Co-operation Framework (UNDP)
REAP	–	Regional Environmental Action Plan
REC	–	Regional Environment Center
REPM	–	Register of Emissions and Pollutant Movement
RETA	–	Regional Technical Assistance
SIC	–	Scientific Information Center
SPA	–	Strategic Partnership Agreement
SPECA	–	Special Programme for the Economies of Central Asia (UN)
SRAP	–	Sub-regional Action Program under UNCCD
TA	–	technical assistance
TACIS	–	Technical Assistance for the Commonwealth of Independent States
TPN	–	Thematic Programme Networks
UNCCD	–	United Nations Convention to Combat Desertification and Drought
UNCED	–	United Nations Convention on Environment and Development
UNCOD	–	United Nations Conference on Desertification
UNDAF	–	United Nations Development Assistance Framework
UNDP	–	United Nations Development Programme
UNESCAP	–	United Nations Economic and Social Commission for Asia and the Pacific
UNEP	–	United Nations Environment Program
UNFCCC	–	United Nations Framework Convention on Climate Change
USAID	–	United States Agency for International Development
WB	–	World Bank

GLOSSARY

<i>Mejlis</i>	–	Parliament
<i>Oblast/ Velayat</i>	–	Province
<i>Raion/ Etrap</i>	–	District
<i>Kolkhozes</i>	–	Agricultural Cooperatives
<i>Sovkhozes</i>	–	State Farms

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COMBATING DESERTIFICATION IN CENTRAL ASIA: AN OVERVIEW

EXECUTIVE SUMMARY

Introduction

Combating desertification is essential to ensuring the long-term productivity of inhabited drylands. Unfortunately, past efforts have too often failed, and around the world the problem of land degradation continues to worsen. The United Nations Convention on Combating Drought and Desertification (UNCCD) serves as the principal global agreement addressing sustainable land management. The Convention's strength lies in its refreshingly innovative manner of tackling land degradation as an essential component of rural development and poverty reduction through a crosscutting, participatory and inclusive approach. It perceives desertification as a local problem with global dimensions. At the local level, it advocates "bottom up" approaches that engage rural communities as integral to the solution of local land management problems. At the national level, it supports the mainstreaming of land degradation considerations into policies and programs to achieve economic growth as well as poverty reduction strategies. It also supports active consultation and partnering with key stakeholders. Finally, it seeks synergistic collaboration with other major multilateral agreements that address global environmental problems, while retaining the focus and distinct mandate of each agreement.¹

The Asian Development Bank *Regional Technical Assistance on Combating Desertification in Asia* (RETA),² co-financed with the UNCCD Global Mechanism (GM), is providing technical assistance to selected countries in Asia, including the five Central Asian Republics (CARs)—Kazakhstan, Kyrgyz Republic, Tajikistan, Turkmenistan, and Uzbekistan—to assist with the UNCCD's implementation. This activity is reviewing the progress, prospects and issues raised in the implementation of the National Action Programs (NAPs) under the UNCCD to combat desertification in these countries, and is deriving recommended measures to strengthen the NAP process and to promote its integration with national strategies for economic growth and poverty reduction. The activities and outcomes of the RETA are meant to enhance the operations of a growing strategic partnership of donors interested in working together with the CARs to strengthen their implementation of the UNCCD. The purpose of this overview report is to provide a concise synthesis of the key points of the country-level reports on Issues and Approaches to Combat Desertification (IACDs), prepared for each of the five CARs.³ This synthesis also gives a prominent place to issues relating to regional cooperation and partnership among CARs and donor agencies with the objective of accelerating CCD implementation in the Central Asia sub-region.

¹ Box 1 in the main report provides a summary of this approach and the obligations of the parties to the UNCCD.

² RETA 5941, approved 29 September 2000.

³ The overview paper is based on an earlier draft which was prepared by the International Consultant under the RETA as an Interim Report in July 2002 based on his visit to the region as a member of the Joint Mission. This revised final draft report takes into account the comments received on that draft as well as the points raised in the country IACDs. The views expressed herein are those of the consultant and do not represent positions of the Asian Development Bank or its member countries.

Land Degradation in Central Asia

The countries of Central Asia face serious problems of land and water degradation due to a complex interplay of natural and human causes, with serious consequences for the ecology, soil fertility and quality of water resources. The area covered by deserts ranges from 28 to 79 percent of the total area of Central Asia. Notwithstanding considerable similarities of climatic conditions and regularities of formations, the landscapes register strong variations in their geological structure, soil and vegetation cover according to their geographical location. The main problem areas are: (i) increase in land and water salinization; (ii) decline in productivity and yields of major cash and food crops critical for foreign exchange earnings and national food security; (iii) degradation of pastures due to overgrazing and loss of fodder productivity and quality due to removal of vegetative cover; (iv) severe degradation in the quality of water and its unsustainable use; and (v) the drying up of the Aral Sea basin, with huge adverse socio-economic and environmental effects. An estimated US\$ 2 billion (about 5% of Central Asia's GNP) is lost annually due to salinization. Agricultural yields have decreased by 20 to 30 percent.⁴

Implementation of the UNCCD

The Central Asian Republics are cognizant of the enormity of the challenge posed by desertification and land degradation. All the CARs were prompt in ratifying the UNCCD, designating major government agencies as focal institutions, and senior officials in those agencies as national focal points for the UNCCD. All CARs have prepared National Action Programs (NAPs) for implementation of the Convention.

However, the process of NAP implementation has been hindered due to a number of reasons. While NAPs are serious technical documents, they are insufficient in policy and programmatic content, are available mainly in Russian (limiting links to others working on similar problems as well as external financing) and have been underutilized in development and environmental planning. Implementation has also suffered due to lack of financial resources. Apart from the domestic budgetary constraints, CARs have been unable to access resources from Developed Country Parties to the UNCCD, because of the inability of the CARs to use NAPs as strategic instruments for resource mobilization. In all CARs, only National Focal Institutions or National Coordinating Bodies (NCBs) approved NAPs, which have yet to be adopted by Governments as a whole. Thus NAPs do not have the status of Governmental Programs with corresponding budgetary support or the direct involvement of key ministries and agencies. This has posed a crucial barrier to integration of the NAPs into national development strategies.

Linkages between NAPs and the process of preparing national poverty reduction strategies and Public Investment Programs (PIPs) also have been inadequate if not altogether absent. This has resulted in difficulties in integrating NAPs into Poverty Reduction Strategies (PRS) to capture the attention of senior policy making agencies. Given the tight coupling between poverty and land degradation, the UNCCD envisages that NAPs and their implementation should be nested within the PRS process. This is to ensure an integrated approach to tackling land degradation as a cross-sectoral issue rather than as a "stand alone" technical problem to be addressed by individual line Ministries.

To promote better linkages between NAPs and the PRS processes in the CARs, the following three steps are urgently needed:

- CCD Focal Institutions should get themselves included in the domestic consultative processes set up by their respective governments for the preparation of PRSs to enable the CCD National Focal Points (NFPs) to play a proactive role in incorporating land degradation concerns into Poverty Reduction Strategy Papers (PRSP) and associated policy and program measures.

⁴ GEF/World Bank, Project Document, Aral Sea Basin Program, May 1998.

- The NAPs are largely conceived as technical documents, which do not provide a clear message as to how CCD objectives and programs to combat land degradation are closely linked to the growth & poverty reduction goals of the government. Therefore, an operational “Approach Paper” should be prepared as a supplement to the NAP which focuses on the programmatic and policy aspects of correcting and preventing land degradation within the framework of poverty reduction strategies.
- A carefully prepared package of pilot projects & technical assistance proposals should accompany the Approach Paper. The purpose would be to ensure that some of the key investment projects get accepted for inclusion in the national PIP and so that donor agencies as well as the Global Environmental Facility (GEF) can have an informed basis for considering proposals for potential support.

There also is considerable need for institutional capacity building. In the working meeting in Tashkent on 28-31 to review interim outputs of the ADB/GM RETA 5941, the NFPs agreed that implementation of CCD-NAPs would receive a significant momentum if focal institutions received capacity-building support for process and content improvements as follows:

- NFPs should be empowered in terms of their status within the government hierarchy by being formally appointed by Government, so that they can effectively coordinate UNCCD implementation with senior levels of other agencies and thus ensure a multi-sectoral approach to implementation of the Convention.
- NFPs should have improved facilities, adequate operational finances, support staff (including staff proficient in English), and information communication technologies.
- Frequent changes of NFPs should be avoided, as they disrupt the continuity of UNCCD implementation.

This all points to the need for systemic capacity building support to the NFPs and NCBs, drawing on existing capacity building initiatives such as the GEF Capacity Development Initiative and Capacity 21. Some of the informal arrangements that NFPs have organized that are currently in place for support to UNCCD implementation should be formally institutionalized to provide more stable technical support.

Enhancing Synergy among Environmental Conventions

Exploiting synergies among efforts to address both local and global environmental problems is emphasized in the CCD Convention and is well recognized by the CAR NAPs. However, the engine to drive this process is missing. To promote the exploitation of synergies, the bodies responsible for implementing commitments under the global environmental conventions need to develop joint work programs to achieve multiple global (as well as local, such as poverty reduction) benefits.⁵ Strengthening the programmatic content of the Joint Work Programs would catalyze collaborative activities around concrete actions. Mere emphasis on establishing formal administrative mechanisms, important as they are, are not a sufficient condition to take advantage of synergies. A suggestion made in some of IACD reports is that Governments may choose to constitute a Working Group of the NFPs of the major global environmental agreements (e.g., UNCCD, Biodiversity, Climate Change) as well as those dealing with NEAPs and the GEF, which may meet periodically to promote mutual collaboration around joint work programs.

⁵ The GEF’s recent draft OP #15 on Land Management emphasizes such joint work programs for collaboration in respect of its focal areas of biodiversity, climate change, and the recently designated focal area of land degradation.

Economic Policy Reforms

The Kyrgyz Republic and Tajikistan have adopted final PRSPs. The PRSP process is still under preparation in Kazakhstan, and it has not made much headway in Uzbekistan and Turkmenistan. Major problem areas regarding market-based economic reform in the region include administered prices and subsidies, weak fiscal discipline, lack of fiscal transparency, rising public debt,⁶ delays in relaxing restrictive foreign exchange and trade regimes, slow progress with privatization, resource appropriation and poor governance. An overarching goal all CARs is to maintain political and institutional stability, and this translates into only gradual state deregulation in most countries. The broad network of subsidies and in-kind transfers also is being retained. However, progress in policy reforms shows considerable variations among the CARs, with Kazakhstan and the Kyrgyz Republic being relatively better performers, followed by Tajikistan, with reforms in Uzbekistan and Turkmenistan moving at a much slower pace.

UNCCD concerns have not been directly incorporated into the mainstream economic policy reform agenda. Thus, it is a challenge to make "space" for UNCCD related concerns in the PRSP process. Once this is achieved, it may be easier to obtain budgetary and donor support for key program elements in the NAPs, based on established linkages to poverty reduction and development objectives. In particular, understanding of and action based upon the strong links between land degradation and agricultural and water policy need to be strengthened. The desire to increase the area of irrigated agriculture long has driven the expansion of cultivation into arid virgin areas, to the neglect of sustainable dryland management principles. Slow progress in land reform, treating water as a virtually free public good, and weak agricultural support services have all aggravated land degradation pressures. While statute books are replete with laws dating from the Soviet times—including those for natural areas, land and water conservation—such laws are often vague and lack clear regulations and the machinery to enforce them.

Urgent policy and program interventions are needed to tackle these problems, focusing in particular on issues of direct relevance to combating desertification. Though it can be difficult to generalize across the CARs, a set of recommended interventions can be identified relating, respectively, to policies and CCD program support.

Interventions at the Level of CCD-related Policy Issues

High priority policy actions include:

- Improvements in the efficiency of water resources management at the national level, including: (i) better water allocation arrangements; (ii) strengthened and rehabilitated irrigation, drainage and water storage infrastructure; (iii) water quality management; and (iv) improved water use efficiency. At the regional level, issues of water sharing between riparian states remain quite sensitive, and the Aral Sea Basin water and environmental management program, being slowly implemented under the framework of the International Fund for Saving the Aral Sea (IFAS), is attempting to address regional policy issues through its new phase of actions.
- Agriculture sector and land reforms, with a view to: (i) correcting policy bias against using agriculture as a state-dominated extractive sector supporting the rest of the economy; (ii) ensuring secure and long-term land-use rights; and (iii) encouraging agricultural support services provision by the private sector, including rural financial services.

⁶ The issue of rising debt burden was highlighted in a brainstorming seminar on the CIS-7 Initiative held in London on February 21-22, 2002. The CIS-7 Initiative is jointly sponsored by the ADB, EBRD, IMF & the World Bank to "promote poverty reduction, growth and debt sustainability in the seven low-income countries of Central Asia and Caucuses". The three Central Asian countries covered are: the Kyrgyz Republic, Tajikistan and Uzbekistan.

- Development of flexible and workable frameworks for regional cooperation to tackle transboundary land degradation issues and to harmonize national actions to combat desertification. Regional cooperation should aim to enhance mechanisms for regional cooperation and to establish an information management and decision support system to strengthen regional cooperation.
- Strengthening of inter-ministerial and inter-sectoral cooperation to involve and engage key planning bodies as a means for mainstreaming CCD NAP considerations into national economic and sectoral planning.

Interventions at the Level of Program Support for CCD/NAP Implementation

High priority actions to provide stronger support for CCD/NAP program implementation include:

- Technical assistance to: (i) strengthen capacity of national focal institutions and focal points responsible for UNCCD in the CARs; (ii) build skills in project and program proposal preparation for potential support by interested domestic and international parties; (iii) enhance the capacity of local governance structures, NGOs and community leaders in participatory local area development; and (iv) support for monitoring, evaluation and other selected forms of analysis, including the capturing of information concerning best practices.⁷
- Incorporation of CCD concerns into the policy and field interventions of international donor projects, including investments of the three international financial institutions active in Central Asia (World Bank, Asian Development Bank and European Bank for Reconstruction and Development).

Developing a Programmatic Approach to Addressing Land Degradation in the Region

Strong consideration should be given to development of an umbrella mechanism to facilitate a more programmatic approach to addressing in an integrated fashion the interconnected problems of poverty, land degradation and dryland ecosystems management in Central Asia. Such a program could be used to better organize and coordinate policy and program interventions at the national and regional levels and might be structured as a CAR-GEF Partnership in cooperation with the GM and international financial institutions.

A new window of opportunity for external financial and program support has opened with the amendment to the GEF Instrument “to designate land degradation, primarily desertification and deforestation, as a focal area, as a means of enhancing GEF support for the successful implementation of the UN Convention to Combat Desertification.” In this context, the GEF draft OP-15 on Land Management states that “GEF assistance would focus on funding the agreed incremental costs of accelerating country-driven actions on sustainable land management to preserve ecosystem stability, functions, and services, reduce carbon dioxide emission and improve carbon sequestration, or stabilize sediment storage and release in waterbodies.” Through this approach, GEF assistance might cover three types of inter-related interventions in the CARs: capacity building; on-the-ground investments; and targeted research—at the community, national, and/or transboundary levels. Draft OP-15 also emphasizes that the environmental conventions need to develop joint work programs to link together work in response to multiple multilateral environmental agreements. Interventions with the primary goal of addressing land degradation might also contribute to biodiversity conservation in dryland ecosystems, carbon sequestration, climate regulation, and improved transboundary water management.

⁷ In the country-level IACD reports, a number of research or pilot activities have been suggested. Given resource constraints, strict criteria must be applied to establish priorities. Apart from the need-based criteria about relevance and on-the-ground applicability, a problem and response prioritization process should be based on: the biophysical dimensions of a particular problem; the number of anticipated beneficiaries (especially the poor and women); institutional feasibility; and cost effectiveness.

A potential model for such a programmatic approach has been developed for the western region of the People's Republic of China, where PRC authorities are implementing an ambitious program with both ADB and GEF resources. Some regional activities under a proposed CCD Sub-regional Action Program (SRAP) for Central Asia also could be included under such an umbrella program.

Development Partner Support

Capacity building is an area that has received extensive past support from various donor agencies, including the UNDP-sponsored Agenda 21 Capacity Building Project. To the extent possible, these existing capacity building programs should be used to help fill the critical capacity gaps in key institutions involved with CCD implementation. A regional trust fund arrangement might be considered—to be nested in one of the international institutions—to manage and oversee capacity building efforts in each of the Central Asian countries in respect to all key multilateral environmental agreements. Donor agencies can play an important role in supporting the enhanced implementation of country-level and regional actions responding to the terms of multilateral environmental agreements—including the UNCCD—by elevating attention to these interventions and mainstreaming them into their broader assistance strategies and programs in Central Asia.

COMBATING DESERTIFICATION IN CENTRAL ASIA:

AN OVERVIEW

I. INTRODUCTION

A. Background

1. The Asian Development Bank *Regional Technical Assistance on Combating Desertification in Asia* (RETA),¹ co-financed with the UNCCD Global Mechanism (GM), is providing technical assistance to selected countries in Asia, including the five Central Asian Republics (CARs)—Kazakhstan, Kyrgyz Republic, Tajikistan, Turkmenistan, and Uzbekistan—to assist with the UNCCD's implementation. This activity is reviewing the progress, prospects and issues raised in the implementation of the National Action Programs (NAPs) under the UNCCD to combat desertification in these countries, and is deriving recommended measures to strengthen the NAP process and to promote its integration with national strategies for economic growth and poverty reduction. The activities and outcomes of the RETA are meant to enhance the operations of a growing strategic partnership of donors interested in working together with the CARs to strengthen their implementation of the UNCCD. The purpose of this overview report is to provide a concise synthesis of the key points of the country-level reports on Issues and Approaches to Combat Desertification (IACDs), prepared for each of the five CARs.² This synthesis also gives a prominent place to issues relating to regional cooperation and partnership among CARs and donor agencies with the objective of accelerating CCD implementation in the Central Asia sub-region.

B. The UN Convention to Combat Desertification

2. The UNCCD, adopted in June 1994, entered into force on 26 December 1996. As of March 2002, 179 governments had joined the UNCCD. Combating desertification is essential to ensuring the long-term productivity of inhabited drylands. The term "desertification" is defined (Article 1) as "land degradation in arid, semi-arid and dry sub-humid areas³ resulting from various factors, including climatic variations and human activities." The term "combating desertification" includes activities which are part of the integrated development of land in arid, semi-arid and dry sub-humid areas for sustainable development which are aimed at: (i) prevention and/or reduction of land degradation;⁴ (ii) rehabilitation of partly degraded land; and (iii) reclamation of desertified land. Unfortunately, past efforts at combating desertification have too often failed, and around the world the problem of land degradation continues to worsen.

¹ RETA 5941, approved 29 September 2000.

² The overview paper is based on an earlier draft which was prepared by the International Consultant under the RETA as an Interim Report in July 2002 based on his visit to the region as a member of the Joint Mission. This revised final draft report takes into account the comments received on that draft as well as the points raised in the country IACDs. The views expressed herein are those of the consultant and do not represent positions of the Asian Development Bank or its member countries.

³ Arid, semi-arid and dry sub-humid areas are defined as: areas, other than polar and sub-polar regions, in which the ratio of annual precipitation to potential evapotranspiration falls within the range of 0.05 to 0.65.

⁴ Land degradation is defined as a reduction or loss of arid, semi-arid and dry sub-humid areas and/or of the biological or economic productivity and complexity of rainfed cropland, irrigated cropland, or range, pasture, forest and woodlands resulting from land uses or from a process or combination of processes, including processes arising from human activities and habitation patterns, such as: (i) soil erosion caused by wind and/or water; (ii) deterioration of the physical, chemical and biological or economic properties of soil; and (iii) long-term loss of natural vegetation.

3. The CCD's strength lies in its refreshingly innovative approach to tackling the problems associated with land degradation as an essential component of the challenge of rural development and poverty reduction through a cross-cutting, participatory and inclusive approach. It perceives desertification as a local problem with global dimensions. At the local level, it advocates "bottom up" approaches involving rural communities as an integral part of the solution. At the national level, it advocates mainstreaming efforts to address land degradation into overall economic growth and poverty reduction strategies as well as the formation of partnerships with all main stakeholders. It seeks synergistic collaboration among all the major multilateral environmental agreements to address the global environmental problems in a coordinated and holistic manner, while retaining focus on the distinct mandates of each convention. Box 1 provides a summary of the approach and obligations of the parties to the UNCCD. Some of the innovative characteristics⁵ of the Convention are:

- Redefines the context of desertification/land degradation in dryland areas;
- Defines the principles to attain Convention objectives;
- Specifies the obligations of affected developing and developed Country Parties;
- Frames action programmes, scientific and technical cooperation and supporting measures to implement the Convention; and
- Emphasizes the critical importance of collaboration and coordination in implementation and financing.

C. The Overview

4. The purpose of this Overview report⁶ is to provide a concise synthesis of the key points raised in the five Country IACDs, with an emphasis on pulling together common themes, issues and lessons. This synthesis also is meant to give a more prominent place to discussions on issues of regional cooperation and partnership of CARs and donor agencies with the objective of accelerating CCD implementation in the Central Asia sub-region. The report is organized into five sections. Following this introduction, Part II discusses the issues of CCD implementation in the CARs against the context of the serious challenge posed by desertification to agricultural growth and productivity as well as to overall environmental health and associated poverty. Part III discusses the enabling policy environment, and Part IV focuses on the key policy issues of relevance to combating land degradation/desertification in the region. Part V discusses support for programs to combat desertification at the level of technical assistance, investment projects, and regional cooperation, and it also provides a summary of the report's main conclusions.

⁵ ADB. 2002. *Opportunities for Implementing the UN Convention to Combat Desertification in Asia*.

⁶ The Overview is based on an earlier draft which was prepared as an Interim Report in July 2002 documenting the findings of the Joint Mission. This revised final draft report takes into account the comments received on that draft as well as the country IACDs.

Box 1. UNCCD – Approach and Obligations of the Parties

Approach

Combating desertification is essential to ensuring the long-term productivity of inhabited drylands. Desertification occurs because dryland ecosystems are extremely vulnerable to over-exploitation and inappropriate land use. This Convention aims to promote effective action through innovative national and local programmes and supportive international partnerships. Drawing on past lessons, the Convention states that these programmes must adopt a democratic, bottom-up approach. They should emphasize popular participation and the creation of an "enabling environment" designed to allow local people to help themselves to reverse land degradation. Of course, governments remain responsible for creating this enabling environment. They must make politically sensitive changes, such as decentralizing authority, improving land-tenure systems, and empowering women, farmers, and pastoralists. They should also permit non-governmental organizations to play a strong role in preparing and implementing the action programmes. In contrast to many past efforts, these action programmes are to be fully integrated into other national policies for sustainable development. They should be flexible and modified as circumstances change. The need for coordination among donors and recipients is stressed because each programme's various activities need to be complementary and mutually reinforcing.

Desertification is primarily a problem of sustainable development. It is a matter of addressing poverty and human well-being, as well as preserving the environment. Social and economic issues, including food security, migration, and political stability, are closely linked to land degradation and drought. So are such environmental topics as climate change, loss of biological diversity, and freshwater supplies. The Convention emphasizes the need to coordinate research efforts and action programmes for combating desertification with these related concerns.

Obligations

By acceding to the CCD, a State becomes a Party to the main international instrument dealing with the urgent global problem of land degradation.

There are four principal categories of obligation under the terms of the CCD and its regional implementation annexes:

- The common obligation of all Parties, including those unaffected by desertification, are spelled out mainly in articles 3, 4, 12, 14, 16, 17, 18, 19 and 20. They relate principally to international cooperation in implementing the CCD at all levels, particularly in the areas of the collection, analysis and exchange of information, research, technology transfer, capacity building and awareness building, the promotion of an integrated approach in developing national strategies to combat desertification, **and assistance in ensuring that adequate financial resources are available for programmes to combat desertification and mitigate the effects of drought.**
- Country Parties affected by desertification in Africa, Asia, Latin America and the Caribbean, and the Northern Mediterranean undertake to prepare national action programmes and to cooperate at the regional and sub-regional levels.
- Other affected country Parties have the option of preparing action programmes following Convention guidelines, or more generally of establishing strategies and priorities for combating desertification.
- Developed country Parties have, under article 6, article 20 and other articles, specific obligations to support affected countries (particularly but not exclusively affected developing countries) by providing financial resources and by facilitating access to appropriate technology, knowledge and know-how.
- Parties are obligated (article 26) to report on measures they have taken to implement the Convention. Parties which have prepared National Action Programmes are obliged under article 10 to provide regular progress reports on their implementation.

Source: Diverse documents from UNCCD Secretariat Web Site: (i) Text of the UNCCD (ii) An introduction to the United Nations Convention to Combat Desertification; (iii) The United Nations Convention to Combat Desertification: An Explanatory Leaflet; (iv) Potential Benefits from Becoming a Party to the Convention, Bonn, July 2000.

II. IMPLEMENTATION OF THE UNCCD IN CENTRAL ASIA

A. Land Degradation/Desertification in Central Asia

5. Central Asia is a vast territory extending from west to east for almost 3000 km and from north to south for almost 2000 km (see the map following the Table of Contents). The region is divided orographically into two parts—an eastern section occupied by the mighty mountain ranges of Tien Shan and Pamir-Alay, and a western part occupied by lowland plains. The main characteristic of these plains—that are a part of the Turanian physico-geographical region—is the presence of various desert landscapes. The nature and scale of the anthropogenic factors in arid and semiarid zones and their influence on the state of the environment and natural resources vary depending on topographic, climatic and other natural features. Even so, there is considerable similarity in the form of economic activities and pressures exerted on the environment by agricultural specialization and intensification in deserts, associated chiefly with irrigated farming, pastures, and other uses of water, land, vegetative, and mineral resources. Among the environmental problems faced by the land-locked CARs, the increasing salinization of irrigated land and water is the most serious. Other significant problem areas are: water-logging; loss of vegetative cover; wind erosion and the transport of large amounts of silt and sands resulting in extension of desertification; and declining productivity of arable lands and pastures. The area covered by deserts ranges from 28 to 79 percent of the total area of Central Asian countries. Notwithstanding considerable similarities of climatic conditions and regularities of formations, the region's desert landscapes register strong variations in their geological structure, soil and vegetation cover according to their geographical location. As an overview, the Table 1 shows the extent of total area covered by deserts. Box 2 provides more details on the types of deserts found in Central Asia.

Table 1. Area Covered with Desert (1000s km², 1980)

Country	Total Area	Area Covered with Desert			
		All types*	% of Total Area	Sandy Desert	% of Total Desert
Uzbekistan	449	250	56	107	43
Turkmenistan	488	387	79	260	67
Tajikistan	143	25	17	5	20
Kyrgyz Republic	198	70	35	0	0
Kazakhstan	2,715	747	28	246	33
Total	3,994	1,479	37	618	42

* Sandy deserts, sandy gravel deserts, loess deserts, clay deserts, solonchak deserts.

Source: A.G. Babaev (Ed.), *Desert Problems and Desertification in Central Asia*, Springer-Verlag Berlin Heidelberg, 1999 p.81.

Box 2. Types of Deserts in Central Asia

The following types of deserts are distinguished here depending on the litho-edaphic conditions:

- (1) sandy deserts formed on Quaternary ancient alluvial and lacustrine deposits;
- (2) stone deserts on medium-altitude Tertiary argillaceous and sandy rock;
- (3) clay deserts on Tertiary and Quaternary ancient delta and proluvium deposits;
- (4) loess deserts on loam and sandy loam sediments on foothill plains;
- (5) Sand bottom deserts on saline sand and clay depressions and on the lowland coasts of the Caspian and Aral Seas.

Sandy deserts are developed on thick and loose sand drifts chiefly of a fluvial and marine origin. They occupy over 50% of desert areas.

Source: A.G. Babaev : *Problems of Arid Land Development*, Moscow University Press. 1996. p.112-113.

6. Land degradation is conceived as the *‘temporary or permanent lowering of the productive capacity of land’* through various forms of soil degradation (see Box 3), adverse human impacts on both land and water resources, and changes in vegetation. Of these various forms, the main causes of land degradation in Central Asia are: soil erosion caused by water and wind; the deterioration of the physical, chemical, and biological properties of soil through heavy use of fertilizers and chemicals; waterlogging and salinization of irrigated lands; salinization of soils caused by the exposure of the former bed of the Aral Sea and associated wind-borne dissemination; swamping of pastures through water mismanagement; lowering of the groundwater table; degradation of vegetative cover, primarily through overgrazing; deflation of sands; deforestation; and technogenic desertification through construction and industrial activities. Annex 3 shows: (a) The dominant forms of land degradation occurring in major ecosystems of Asia; (b) Desertification of lands by types of degradation in Aral Sea Basin; and (c) Country breakdown of land resources in Aral Sea basin by main uses.

7. Combating land degradation in arid and sub-arid regions is usually regarded land management authorities as a function of sustainable dryland management. Not so in Central Asia. Where dryland farming is practiced, a substantial role is played by traditional methods of precipitation accumulation and surface drainage. However, agriculture in Central Asia has been, for best part of its history, based on irrigation. A major contributor to recent land degradation has been the strategy of the former Soviet Union as well as the newly independent CARs to increase production of two basic crops: cotton, as the main foreign exchange earner; and wheat, as a means of ensuring national food security. Irrigation has been at the core of agricultural specialization and intensification, and since river systems in the region could be harnessed to supply water for irrigated agriculture, it was expanded into reclaimed virgin lands in arid areas. In the Soviet period—and especially since 1960—irrigated lands in Central Asia were almost doubled from six to ten million hectares (ha) through an intensive tapping of the Amu Darya and Syr Darya Rivers that comprise the Aral Sea Basin. This contributed to a marked decline in available water resources in the basin, a deterioration in the quality of surface waters, and the drying up of the Aral Sea.

8. The quality of river water in the upper Aral Sea Basin is very high. However, water quality—notably the salinity level—worsens noticeably further down the rivers from 1.15 g/l in the middle reaches to 2 g/l and more in the lower reaches. In the lower Amu Darya, mineralization and water hardness as well as the content of sulphates, chlorides, phenoles, silicon etc. exceeds regional standards for the maximum permissible content (MPC). Irrigation and drainage infrastructure is in a state of disrepair and further contributes to the deterioration of water quality and its wasteful use. The progressive pollution of groundwater, which serves the needs of pastures and populated areas, also is mostly caused by the deteriorating quality of surface runoff.

9. The costs of land degradation to the economies of the countries in Central Asia are enormous. The Project Document of the GEF/World Bank Aral Sea Basin Program (1998) indicates that an estimated US\$ 2 billion (about 5% of Central Asia’s GNP) is lost annually due to salinization in the Aral Sea Basin. It also states that:

- (i) 31 percent of the 7.9 million ha under irrigation have a water table at a depth of less than two meters and 28 percent have medium to high levels of salt, with agricultural yields decreased by 20 to 30 percent; and
- (ii) an estimated 137 million tons (about 18 tons of salt per ha/year, or about six times the average yield of raw cotton) is the average annual discharge from the irrigated lands.

B. The National Action Programmes to Combat Desertification (NAPs)

10. All five CARs have completed and adopted NAPs. The preparation of NAPs was assisted in the case of Kazakhstan (1997 NAP) and Uzbekistan by Finland, UNEP and UNDP, and in the case of Turkmenistan by UNEP. The Tajikistan NAP preparation was assisted by the UNCCD-Secretariat and UNSO. In case of the Kyrgyz Republic, the NAP preparation process was assisted by the UNCCD-

Secretariat. The NAPs are generally well prepared by interagency groups of scientists and contain a wealth of data, with somewhat limited analysis, on the nature and scale of the desertification processes, their geographic characteristics, and their natural and anthropogenic causes and consequences.

Box 3: Typology of Land Degradation

The United Nations Environmental Programme (UNEP), Food and Agriculture Organization (FAO) and International Soil Reference and Information Centre (ISRIC) collaborated in the development of a database on global soil degradation status. The joint effort paved the way for the conduct of the Global Assessment of the Status of Human –Induced Soil Degradation (GLASOD) and the Regional Assessment of the Status of Human Induced Soil Degradation in South and Southeast Asia (ASSOD). As a way of standardizing the understanding of soil degradation the following typology were used.

- Erosion which common form is the loss of topsoil due to the actions of water and wind. Water erosion occurs under most climatic and physical condition while wind erosion is more widespread in arid and semi-arid areas. An extreme form of erosion is terrain deformation mainly due to action water. Extreme wind erosion causes deflation hollows and sand dunes. Erosion risks depend on natural conditions and on land use patterns. Human actions that significantly induce the occurrence of erosion is in the removal of vegetative cover.
- Chemical deterioration that comes in the form of nutrient depletion, salinization, acidification and the pollution from various origins.
- Physical deterioration is manifested through soil compaction, waterlogging and subsidence.

Source: ADB (Draft Paper): *Opportunities for Implementing the UN Convention to Combat Desertification in Asia*.

11. The NAP preparation and implementation is managed by the National Focal Points (NFPs), who are located in the government-designated focal institutions responsible for UNCCD. The CCD-NAP National Focal Points are high ranking government officials occupying senior positions in the focal institutions. For instance, the NFP in Tajikistan is Chairman of the Committee on Land Resources & Land Management, at the level of Minister. The focal institutions are specialized technical agencies, with considerable expertise at their disposal. For instance, in Turkmenistan the CCD focal institution is the National Institute of Deserts, Flora & Fauna, which is an internationally renowned center for research in areas such as sand drifts and deflation, agricultural reclamation of sand deserts, and reuse of waste mineralized water for irrigation. The CCD focal institution in the Kyrgyz Republic is the Kyrgyz Scientific and Research Institute of Irrigation (National Center to Combat Desertification), Ministry of Agriculture & Water Resources. Annex 1 provides details on adoption of NAPs, Focal Institutions and National Focal Points.

12. The NAPs should not be treated as static documents, since they will naturally become dated in an evolving economic and policy context. In this context, only Kazakhstan has undertaken revisions of its NAP. A new draft version of the Kazakhstan NAP has been prepared, building upon the earlier NAP documents, which was expected to be approved in 2002. The first NAP for Kazakhstan was adopted in 1997, and the newly revised version aims at aligning the NAP more closely with the long-term strategy of the country's development: "Kazakhstan 2030". The 2002 NAP is directed primarily at highlighting the need for a more coordinated intersectoral and programmatic approach to the problem of combating desertification. The new draft NAP lists a number of projects planned for implementation during the period 2001-2011. However, it does not give any elaboration of the underlying rationale or concepts behind the project proposals listed in the document—a general weakness common to all NAPs in Central Asia. In other CARs, there are no proposals yet to revise the current NAPs. Nevertheless, the CCD-NAP preparation has moved ahead of the national action planning for implementation of other major multilateral environmental agreements (see Annex1).

C. Strengths and Weaknesses of the NAPs

13. The strength of the Central Asian NAPs lies in the fact that they represent the outcome of considerable scientific research on desertification phenomena based on diverse data bases relating to rainfall, hydrology, climate, geology and geomorphology. The analysis of desertification processes also discusses in considerable detail the complex nature of land degradation phenomena and the critical impact of anthropogenous (human) activities on the low resilience of arid, sub-arid and sub-humid ecosystems of the region. Thus, the dynamics of the desertification processes, their underlying causes and consequences are well understood and receive adequate treatment in the NAPs, even though virtually every NAP highlights areas which need further research.

14. Inter-agency coordination mechanisms are in place in all the CARs to oversee the CCD implementation as a cross-sectoral process.⁷ However, at the implementation stage, the NAPs are very much the responsibility of the designated CCD Focal Institutions, and more particularly of the NFP. Usually other ministries, especially planning agencies, are not been involved in the NAP process. Thus, the cross-cutting nature of the CCD is not reflected in the way NAPs are structured or implemented. The national coordination bodies (NCBs) function mainly at the formal level—the principal exception being the momentum imparted intermittently by activities undertaken at the instance of the GM and/or the UNCCD Secretariat or for the purpose of clearing national reports to the Conference of the Parties (COP). As a result, *the substantive implementation of NAPs is currently stalled in the region*. The main constraining factors include the following:

- (i) **Weak participatory content of NAPs.** The NAPs are the product of the work of technical experts and do not adequately reflect the social and institutional dimensions of the rural communities who live and use the degraded lands as their habitats and sources of livelihood. The Central Asian people figure as an anthropogenous abstraction. The NAPs also do not contain much discussion about how the participatory approaches underlying CCD implementation could be applied in the particular context of the Central Asian agrarian structures which, despite efforts at land reform, are still dominated by the state and the erstwhile collectives.
- (ii) **Weak policy and programmatic content.** The NAPs do not have an operationally relevant discussion of the policy issue relevant to land degradation concerns. As a result, NAPs do not have much influence in the Governments' policy setting exercises, and the CCD concerns are not appropriately and explicitly reflected in the core national policy agenda. The NAP reports also do not provide a clear discussion of projects or programs directed at combating land degradation, though there is often a good discussion of causes of land degradation and key priority areas requiring corrective actions. As a consequence, NAPs have remained largely "for shelf" reports, and do not appear to serve as instruments to access domestic or external resources.
- (iii) **Lack of clear linkages with national planning and budgetary processes.** The NAPs' stand alone nature is aggravated by absence of its mainstreaming into the national planning and budgetary processes. Any linkages with national budgets are purely in the form of ad hoc funding. Thus, the implementation of NAPs has been adversely affected by funding constraints. The NAP activities usually have been crowded out by more pressing competing needs for allocation of limited budgetary resources. This has discouraged the NFPs to do further follow up preparatory work on the NAP investment or technical assistance proposals.

⁷ In case of Kazakhstan, the Ministry of Natural Resources & Environmental Protection, the CCD focal institution, has been until recently located in Kokshetau, some 300 km away from the national capital, Astana, making inter-agency coordination particularly difficult.

- (iv) **Lack of cross-sectoral interface.** Notwithstanding the existence of formal coordination mechanisms, integrating NAPs into the ongoing poverty reduction strategy (PRSP) processes is not much in evidence. Nor is the policy focus directed at land degradation issues except in somewhat rhetorical expression of concern. This is partly due to the fact that UNCCD and NAPs do not yet have any operationally relevant instruments to promote interface with PRSP and the central policy reform agenda (these issues are discussed in the next section).
- (v) **Lack of structured interaction between the governments of the CARs and the development partners at the country level.** Due to lack of familiarity with donor procedures and requirements, the NAPs do not provide a clear articulation of the rationale and concept of projects and programs requiring donor support. The Focal Institution for CCD and in particular the NFP need to be more proactive in interacting with the donor coordination mechanisms which exist at the country level. There is also the problem of limited access of donor agencies to NAPs and related project documents, since these are available mainly in the Russian language.⁸ The lack of more structured interaction has to some extent limited the knowledge and interest of potential donors to support activities to implement the CCD-NAPs.

15. In the working meeting in Tashkent on October 28-31, 2002 to review interim outputs of the ADB/GM RETA 5941 (see Para 2), the NFPs came up with an agreed conclusion that implementation of CCD-NAPs would receive significant momentum if focal institutions received capacity-building support for process and content improvements as follows:

- (i) NFPs should be empowered in terms of their status within the government hierarchy by being formally appointed by Government, so that they can effectively coordinate UNCCD implementation with senior levels of other agencies and thus ensure a multi-sectoral approach to implementation of the Convention.
- (ii) There was a general consensus that NFPs should have improved facilities, adequate operational finances, support staff (including staff proficient in English), and information communication technologies.
- (iii) The frequent changes of NFPs disrupt the continuity of implementing the UNCCD.
- (iv) This points to the need for systemic capacity building support to the NFP and NCB, drawing on existing capacity building initiatives such as GEF Capacity Development Initiative and Capacity 21.
- (v) Some of the informal arrangements that NFPs have organized that are currently in place for support to UNCCD implementation should be formally institutionalized to provide stable technical support.

D. A Three-pronged Approach to Strengthening the Implementation of CCD in the CARs

16. A three-pronged approach has been proposed in the country IACDs to strengthen and deepen the process of implementation of the UNCCD, keeping in view the objectives of the Convention. These reports suggest that the NAP process must look beyond the narrow focus of emphasis on the technical and scientific dimension of desertification to a cross-sectoral approach to understanding and tackling the underlying root causes. Thus, the focus of NAP implementation should be on a three-pronged approach:

⁸ Among the CARs, only Tajikistan has, with assistance from the UNDP, got a limited number of printed copies of its NAP in English available to give to missions visiting the Tajikistan CCD-NFP.

- (i) mainstreaming;
- (ii) participation of civil society organizations, such as NGOs and CBOs; and
- (iii) operational orientation to the implementation process.

17. Mainstreaming lies at the center of the approach to combating desertification. It is necessary to address the root causes underlying the process of desertification which are intimately linked to issues of poverty and under-development. Thus, lasting solutions to these problems must be found through multi-sectoral and cross-cutting approaches spanning a large spectrum of policies and programs. Mainstreaming must occur at both the macro (budgetary & planning agencies and processes) and sectoral levels (such as with the Ministries of Agriculture, Water Resource Management, Forestry, Nature Protection/Environment, and Focal Institutions for other environmental conventions).

18. Participatory approaches would ensure that the UNCCD implementation process has the ownership of all stakeholders, more particularly the local communities who are the primary users of natural resources for their livelihood. Their participation can be catalyzed by the involvement of NGOs. In this context, working with NGOs requires special measures, consistent with Government regulations, to extend the outreach of NGOs to the grassroots so they can work to strengthen relatively weak civil society institutions. It seems that participation will be an evolutionary process starting with consultation and engagement. It will require flexibility and adaptive approaches to promote closer involvement of NGOs and beneficiaries in the implementation activities in support of UNCCD goals. There are still many constraints which limit the active involvement of NGOs in the implementation process in Central Asia, including their own limited capacity and outreach. Participatory approaches are a crucial element of implementing community-based pilot projects to address land degradation issues in the location specific contexts of local area development and poverty reduction.

19. An operational orientation to the implementation process is critical to producing concrete results on the ground. Desertification is a global challenge dependent to a large extent on local solutions. The CAR NAPs recognize this in principle, but lack mechanisms (in the form of a work plan with a complement of activities and projects, which are worked out as clear concepts) to be part of the Government's plan and project portfolio to allocate domestic or elicit external resources.⁹ At another level, the NAPs need close and clearly delineated, and administratively approved, functional linkages to enlist the involvement of provincial, district and local government authorities in the implementation of NAP activities and programs at these levels. The CCD Focal Institution should also position itself to be able to ensure participation of the evolving decentralized structures of local governance.

E. Enhancing Synergy among the Environmental Conventions

20. Exploiting synergies among efforts to address both local and global environmental problems is emphasized in the CCD Convention and is well recognized by the CAR NAPs. However, the engine to drive this process is missing. To promote the exploitation of synergies, the bodies responsible for implementing commitments under the global environmental conventions need to develop joint work programs to achieve multiple global (as well as local, such as poverty reduction)

⁹ One of the recommendation made in some of the IACD reports, such as for Uzbekistan, is that it will be helpful to operationalize the NAP through a rolling action program for its implementation focused primarily on policy and programmatic content to serve as a basis of mainstreaming CCD, and especially the land degradation concerns, in the national development strategy, and reflecting the funding needs of its priority activities and projects, including those of other concerned agencies, into the national budgetary process. This would require aligning the timeline of the proposed annual rolling program to the national budgetary cycle.

benefits.¹⁰ Strengthening the programmatic content of the Joint Work Programs would catalyze collaborative activities around concrete actions. Mere emphasis on establishing formal administrative mechanisms, important as they are, are not a sufficient condition to take advantage of synergies. A suggestion made in some of IACD reports is that Governments may choose to constitute a Working Group of the NFPs of the major global environmental agreements (e.g., UNCCD, Biodiversity, Climate Change) as well as those dealing with NEAPs and the GEF, which may meet periodically to promote mutual collaboration around joint work programs.

III. POLICY REFORMS IN CENTRAL ASIA

A. The Development and Poverty Reduction Framework

21. The central concern of the UNCCD is to combat land degradation within the overall framework of Governments' economic growth and poverty reduction strategies. UNCCD envisages that the NAPs and their implementation being nested within these overall strategic frameworks in order to ensure an integrated approach to tackling land degradation as a cross-sectoral issue rather than a "stand alone" technical problem. The CARs have their own long term development goals to guide their national growth and development plans. They are in varying stages of adopting national poverty reduction strategies, on the model of the "Poverty Reduction Strategy Paper" (PRSP) process. The PRSP is conceived as a systemic policy instrument to articulate and concretize the country's medium-term strategies for macroeconomic management and growth as well as sectoral development, including agricultural, rural and social sector policies as vehicles for achieving poverty reduction and economic growth. These strategic frameworks are intended to have Government ownership and to reflect national development goals and priorities. The PRSP preparation is being supported by the IMF and the World Bank, and the ADB is also actively assisting this process. The economic growth and poverty reduction strategies, integrated into the PRSP process, are at varying stages of progress in the CARs (see Table 2). However, the CCD/NAPs are still very much divorced from the PRSP process, though environmental protection forms an essential component of such policy frameworks. Within the context of environmental protection and issues of unsustainable environmental management, concerns about land and water degradation and desertification are reflected somewhat indirectly and without any reference to the UNCCD or the country NAPs. *In order to mainstream the CCD/NAPs into the PRSP process, the CCD Focal Institutions should get themselves included in the domestic consultative processes set up by the CAR governments for the preparation/implementation of PRSP to enable the CCD NFPs to play a proactive role in incorporating land degradation concerns at the level of policy in the PRSP frameworks.*

B. Pace of the Policy Reform Process

22. The CCD envisages promotion of an enabling policy environment for the success of measures to combat desertification. This is so because the root cause of an environmental problem is often located in poverty and in a non-environmental sector, like agriculture or industry. Therefore, integration, or mainstreaming, of environmental concerns across the sectors is necessary to solve an environmental problem in a sustainable manner. The mainstreaming of CCD implies integration of land degradation prevention and control strategies with poverty reduction strategies and with macro and sectoral reform processes.¹¹ It also underscores need to develop an integrated and cross-sectoral approach to sustainable management of natural resources.

¹⁰ The GEF's recent draft OP #15 on Land Management emphasizes such joint work programs for collaboration in respect of its focal areas of biodiversity, climate change, and the recently designated focal area of land degradation.

¹¹ The current disconnect of the CCD/NAPs from the mainstream of policy making is true not only of the government agencies, but also of the major donor agencies leading the PRSP process.

Table 2. Development & Poverty Reduction Framework

Long Term Development Framework	Medium Term Poverty Reduction & Growth Strategy (PRSP)
Kazakhstan	
The Government 's vision for the development is laid down in "Kazakhstan 2030 – Prosperity, Security and Improvement of the Welfare of all Kazakhstan People" to " build an independent, prosperous and politically stable state with its inherent national unity, social justice and economic welfare of all the population".	The Government is currently engaged in drafting a Poverty Reduction Program for the period 2003-2005. It seeks to consolidate the existing programs and legislations of the Government that directly or indirectly impact on poverty reduction. The ADB is assisting the Government ¹² in the preparation of a new CSP on poverty reduction, which will be formulated in close collaboration with the World Bank and the IMF.
The Kyrgyz Republic	
The Government has adopted a Comprehensive Development Framework (CDF) of the Kyrgyz Republic to 2010. The World Bank assisted the Government in the preparation of the CDF, which provides an agreed long term framework for coordinating donors' involvement in various sectors	The Government adopted Interim National Strategy for Poverty Reduction (INSPR), 2001-2003 (June, 2001). It has since adopted in December 2002 a full National Poverty Reduction Strategy (NPRS), 2002-2005, as a framework for policy reforms, external debt stabilization, poverty reduction, and coordinated donors assistance.
Tajikistan	
Since the signing of the Peace Agreement in June 1997, Tajikistan has made substantial progress in achieving macroeconomic and financial stabilization, while consolidating political consensus on consolidating administrative and governance structures.	The Government of Tajikistan adopted the Interim Poverty Reduction Strategy in October 2000. It has since adopted, with the assistance from the IMF and the World Bank, a Poverty Reduction Strategy Paper in June 2002 for the period 2003-2005.
Turkmenistan	
The Government adopted ten year National Program for 2000-2010 (1999), with goals of: (i) Economic Independence; (ii) Food Safety; (iii) Social Security; and (iv) Ecological Safety.	The World Bank prepared in January 2001 "A Profile of Living Standards in Turkmenistan". The work on PRSP in Turkmenistan has not made much headway. The PRSP process is still an issue for policy dialogue. The incidence of poverty is somewhat masked by in-kind and price subsidies.
Uzbekistan	
<i>Uzbekistan: Moving Towards the 21st Century</i> , Report to the 14th Session of the Parliament (Oliy Majlis) includes a number of priorities for public policy, adopted by the Government in 1999: (i) Liberalization in political and economic areas and liberalization of state and social development; (ii) Steady and systematic growth of the people's well-being and better security for the population; (iii) Economic restructuring; (iv) Safeguarding of stability, peace, inter-ethnic and civil accord -- -	The Government is reluctant to use the internationally accepted terminology of PRSP. ADB, in close collaboration with the World Bank and other major development partners, is assisting the Government through a TA in preparing a "National Strategy to improve the Living Standards of the People of Uzbekistan". This involves undertaking poverty analysis and providing a basis for a high-level forum and a poverty partnership agreement. ¹³
Note: See Country IACDs for more details.	

23. Economic policy reform in the Central Asian countries has a mixed record, which varies from one country to the other. For instance, *Kazakhstan* has a good record of sound macroeconomic management, price, foreign exchange and trade reforms. It has also followed a stringent policy to check the growth of foreign debt, including a decision to limit borrowing on ordinary terms from the international financial institutions (IFIs). It has carried out a bold program of privatization of small and medium enterprises (SMEs), though it has been relatively less forthcoming on reform of large state owned enterprises (SOEs) and of the banking sector. It has also taken measures to revitalize the agricultural sector. The country is now perceived to be a "market economy". The *Kyrgyz Republic* has been highly receptive to reforms to liberalize the economy and made considerable progress in transfer of land rights to individual and peasant farms and privatized SMEs. However, it has a rather poor record in external debt management. Its management of fiscal and financial sectors also needs to be

¹² ADB-TA 3550: *A Comprehensive Medium-Term Poverty Reduction Strategy*, \$ 830,000, approved on 23 November 2000.

¹³ The ADB is also processing a poverty reduction project, financed by Japan Fund for Poverty Reduction (JFPR) in Karakalpakstan, one of the poorest regions in Uzbekistan.

more disciplined, and governance more transparent. *Uzbekistan* has chosen a cautious and gradualist approach to reforms on virtually all fronts. It particularly needs to focus on liberalizing domestic trade and improving incentives for increased output and employment in productive private sectors, particularly agriculture. It also has an unfinished reform agenda in the area of liberalizing trade and payments regimes and development of the financial sector. *Tajikistan* has shown willingness to reform, but has serious weaknesses in management of transition process, which has made its moves to reform indecisive and fitful. *Turkmenistan* is by far the most conservative in its approach to policy reforms in general and is pushing ahead on the strength of its natural gas and oil reserves, with an untargeted, but populist program of food and energy subsidies and other forms of in-kind transfers.

24. This broad generalized sketch, however, needs to be qualified. It is not that Central Asian governments are averse to speed up economic reforms. They also have the overarching goal of maintaining political and institutional stability by not giving up too much too soon on state regulation. The governments in Central Asia wish to sustain a broad network of subsidies and in-kind transfers in order to maintain a level of social benefits to the population to minimize the costs of social disruption as a result of structural reforms. Basically, the pace and sequence of reforms is a function of these governments' capacities to effectively manage the transition to a market economy as well as their perception of the tradeoffs between risks to political stability and socio-economic gains from structural reform. *Thus, policy choices in Central Asia, as elsewhere, are in the ultimate analysis a function of political will and judgment, and not entirely of rational economic logic. On the whole, there is a growing consensus in the region about the need for economic liberalization, privatization, and institutional and structural reform, though each country has its own distinct approach to the pace of such reform based on the PRSP process.*

25. A recent EBRD study rates the level of reforms in the main areas by the various CARs as summarized in Table 3. Table 4 provides an overview of the key economic and poverty indicators.

Table 3: The Level of Reform in Central Asia
(rated on a scale of 1 to 4.3, with 4.3 being the highest level of reform)

	Prices	FX & Trade	Privatization of enterprises		Enterprise Reform	Banking Sector Reform	Total Score
			Small	Large			
Kazakhstan	3.0	3.3	4.0	3.0	2.0	2.3	17.6
Uzbekistan	2.0	1.0	3.0	2.7	1.7	1.7	12.1
Turkmenistan	2.0	1.0	2.0	1.7	1.0	1.0	8.7
Kyrgyz Repub	3.0	4.0	4.0	3.0	2.0	2.3	18.3
Tajikistan	3.0	3.3	3.3	2.3	1.7	1.0	14.6

Source: EBRD's Transition Report, 2001. Last column not in the cited table.¹⁴

¹⁴ Table 4 and World Bank data cited in Table 3 from: Johannes Linn, Vice President World Bank, ECA Region: Central Asia Ten Years of Transition, Talking points for Central Asia Donors' Consultation Meeting, Berlin, March 1, 2002.

Table 4: CARs - KEY economy & poverty indicators

	Kazakhstan	Uzbekistan	Turkmenistan	Kyrgyz Republic	Tajikistan
Population (no. million)	14.9	24.7	4.8	4.9	6.3
Income					
Current GDP (2000, \$ billion)	18.3	13.5*	4.4*	1.3	1.0
GDP Growth: 2000	9.6	4.0	17.6	5.0	8.3
(%) 2001 (est.)	10.0	3.8	16.0	5.3	5.0
Per Capita GDP (2000, \$)	1190	610	840	270	170
GNP/Capita 1998 \$ PPP ^a	4317	n.a.	2875	2247	1047
Macroeconomic: 2000					
Fiscal Balance % of GDP	- 1.0	- 2.2	1.2	- 10.2	- 0.6
Current Account Balance (% of GDP)	5.9	2.4*	9.4*	- 5.9	- 6.2
Inflation (%)	13.0	28.0	8	19	33
Debt to GDP (%)	34	59*	52*	131	93
Poverty					
% below: National poverty line	35	31	29	55	83
% below \$2.15 per capita/day	6	22	7	49	68
Gini coefficient 1987-89	0.30	--	0.28	0.31	0.28
1993-94	0.33	--	0.36	0.55	--
1996-98	0.35	--	0.45	0.47	0.47
Human Development Index (HDI)	1995: 0.695	1990: 0.695	1997: 0.711	1990: 0.689	1992: 0.620
	1999: 0.742	1998: 0.686	1999: 0.720	1999: 0.706	1999: 0.601

* At official exchange rate.

Source: World Bank data & HDI data from ADB CSPs.; ^a World Bank. "Making Transition Work for Every One" (2000).

C. The Policy Reform Agenda for CARs

26. As mentioned earlier, PRSP is the main instrument that defines the main elements of a country's policy reform agenda. The PRSP is intended to demonstrate greater ownership and political commitment of the country to reform through implementing the associated programs, including: improving governance; reducing corruption; targeting social spending on the poor; and limiting the growth of new external debt. The PRSP approach also underpins the relationship between the international donor community and the CARs. In this context, it is worth noting the CIS-7 Initiative, that is jointly sponsored by the four MFIs—the ADB, EBRD, IMF & IBRD—to "promote poverty reduction, growth and debt sustainability in the seven low-income countries of Central Asia and the Caucasus".¹⁵ At a brainstorming seminar on the CIS-7 held in London on February 21-22, 2002, it was concluded that while the specific problems facing each country differ, there are seven common development challenges facing these countries (see Box 4 for recent progress):¹⁶

- (i) strengthening the capacity of governments, building greater public accountability, and tackling corruption;
- (ii) improving the climate for private investment;
- (iii) securing greater regional cooperation, particularly in the areas of trade, water and energy, and resolving conflicts across the region is critical to this process;
- (iv) ensuring adequate provision of health and education services and acting now to counter the problems of HIV/AIDS, tuberculosis, malaria, and drug trafficking and abuse.
- (v) promoting the macroeconomic and structural reforms necessary to stimulate domestic and foreign investment and encourage the growth of small and medium sized enterprises in a dynamic private sector; and
- (vi) taking urgent action to bring external debt back to sustainable levels and to ensure that it remains sustainable in the future.

¹⁵ The seven countries covered by CIS-7 are: Armenia, Azerbaijan, Georgia, Kyrgyz Republic, Moldova, Tajikistan, and Uzbekistan.

¹⁶ Chairman's concluding remarks.

27. These development challenges emphasized by the CIS-7 Initiative broadly represent the policy agenda of the CARs being articulated through the PRSP process. The policy issues are discussed in some detail in the IACD report of each Central Asian country. In this Overview, attention is focused mainly on the more important issue areas of particular relevance to environmental protection, control of land degradation and realization of UNCCD objectives. From this perspective, it may be noted that the macro policy issues emerging through the PRSP process—such as the issues listed above—do not always explicitly refer to the CCD-related issues of sustainable natural resource management and combating desertification. *Thus, there is need to make "space" for CCD-related concerns in the national policy agenda which is being delineated through the PRSP process. Once this is achieved, it may be easier to get budgetary and donor support for the key program elements of the NAPs, based on their linkages with the poverty reduction and sustainability objectives.* As observed by Prof. Babaev, "Deserts are very demanding to those who start developing them. Unwise management of the desert environment, disregard or ignorance of its specific natural processes invariably lead to negative implications."¹⁷ The underlying causes of land degradation are often found in inappropriate policies.

Box 4. Report on Progress Under the CIS -7 Initiative

(Prepared jointly by the IMF and the World Bank - April 7, 2003)

1. IFI support for country reform strategies has focused on a number of areas:

(A) Ensuring macroeconomic stability (IMF)

- The PRGF¹-supported program with the Kyrgyz Republic has remained on track since its approval in December 2001,
- a new PRGF arrangement was approved for Tajikistan in December 2002
- Uzbekistan does not currently have an IMF-supported program in place.

(B) Public expenditure management (World Bank)

- Public expenditure reviews have recently been completed in the Kyrgyz Republic.
- Public expenditure reviews are under preparation in Tajikistan and in Uzbekistan.

The thrust of these programs is to help ensure that public resource use reflects scarcity and PRSP priorities, given external debt and domestic revenue constraints. Prioritization in expenditures is key, but institutional capacity weaknesses inhibit policy design and implementation.

2. Bilateral donors have provided support to those countries implementing reforms, increasingly on a grant basis.

- The December 2002 Consultative Group meeting for the Kyrgyz Republic—the first Consultative Group meeting in the region based upon a PRSP document-generated substantial pledges of support, with a large proportion of the pledges being grants.
- Tajikistan is scheduled to have a meeting of its Consultative Group in May 2003 to discuss donor support for its PRSP.

3. Each of the IFIs has contributed to institution building through technical assistance in their core areas of specialization, in several cases funded by bilateral donors.

Significant additional resources have been made available by donors to support the provision of technical assistance in the region. At the IMF, dedicated accounts established by the governments of Italy, Japan, the Netherlands, and Switzerland have financed a range of technical assistance activities. In addition, there has been an increased emphasis on regional events—for example, a CIS-wide seminar on indirect taxation issues held in Almaty in June 2002 that was funded by the Government of Italy and a seminar on deposit insurance for Central Asia, Azerbaijan, and Mongolia in Basel in January 2003 organized by the EBRD and the IADI (International Association of Deposit Insurers), sponsored by the Swiss Government in cooperation with Japan. The EBRD's legal transition program has continued to provide technical assistance funded by donor grants for the drafting of laws in the areas of secured transactions, bankruptcy, telecommunications, foreign investment, and leasing.

4. There was a broad consensus on the priorities for the period ahead, namely to:

- (i) enhance donor financial assistance for countries following appropriate policies—including debt relief where needed—and improve donor coordination;
- (ii) improve governance and strengthen ownership and implementation of reform programs, particularly through the PRSP process;
- (iii) foster capacity building to improve the design and implementation of reforms; and
- (iv) increase regional cooperation, especially on trade, transport, and energy.

5. Finding a resolution to the regional trade disputes is a high priority for ensuring that recent growth rates can be sustained.

Note: Information confined to 3 CARs included in the CIS-7.

¹ PRGF- IMF Poverty Reduction and Growth Facility.

¹⁷ A.G. Babev, Desert Problems and Desertification in Central Asia, Springer, p.22.

IV. KEY POLICY ISSUES RELEVANT TO COMBATING DESERTIFICATION

A. Agricultural Sector Policies

28. At the present stage of development of the CARs, a faster and broad-based growth of the agricultural sector, including agro-processing, is crucial to the higher overall growth of the economy and significant progress in reducing the incidence of poverty. Four types of policy reforms are essential to provide some momentum to the process of agricultural growth. *First*, the most basic of these policy adjustments relates to privatization of the farming sector. *Second*, the production system needs a larger degree of freedom to decide what to grow in response to market signals rather than simply responding to targets set from above. *Third*, the policy environment should be such that it stimulates supply in response to market prices rather than being constrained by a regime of administered prices and restricted marketing and trade regulations. *Fourth*, access to key factors of production—inputs, credit, research and extension services—needs to be freed. Central Asian economies, however, continue to operate in the context of their prolonged process of transition and imperfect market conditions which is hampering the reform process. Still progress is needed in these directions, albeit gradually but surely, or a stagnant agriculture sector will pull down the growth impulses in the rest of the economy.

29. Land reforms represent an important part of this policy adjustment process. Those undertaken by the CARs thus far have been based on the premise that land ownership will not be transferred; only the right of use of the land will be accorded to the privatized farm units. It is accepted in the region that the policy climate is not yet ripe to release the land from the domain of state ownership. However, the policy goal should be to establish assured and well-enforced land rights to facilitate the transition to a market-based production system. The reforms implemented in Central Asia remain quite some distance from this goal. The reforms have essentially focused on two key areas: (i) the restructuring of the state farms (*sovkhoses*) and collectives (*kolkhozes*); and (ii) the mechanics and degree of transfer of user rights to privatized farm units and/or to the individuals who choose to opt out of such farm units. However, the discussion on these issues in the country IACD reports shows that there are considerable variations in the approach adopted by the various countries to privatization of the farm sector as well as to agriculture sector reforms. It is necessary that the land reform process be continued with a focus on providing secure land tenure rights, which are transparent and registered and can be enforced under a country's legislative process.

30. This process of conferring user rights should be carried out in such a way so as not to involve excessive transaction costs, be supported by wide publicity in the rural areas, and clearly spell out the duration, nature and types of usufruct rights. It should also provide an appeal or dispute resolution mechanism. Ideally, the reform process should lead to making user rights transferable, so that development of land markets is encouraged. In countries such as Kazakhstan, this could lead to an eventual corporatization of the farm sector with flow of increased investment into agriculture. However, this would be possible only if the governments of the region correct their current policy bias of extracting "surplus" from agriculture. To raise agricultural productivity, it is also necessary to control increasing land degradation through efficient water management and salinization control measures, including investments for rehabilitation of irrigation and drainage networks, and provision of agricultural support services. Another necessary condition for agricultural revival is provision of improved technology and institutional support structures. This will require strengthening the national agricultural research systems (NARS), which are currently operating under serious financial constraints.

31. Unsustainable agricultural practices have compounded the land degradation process and resulted in the following serious problems in the sector: decrease of yield and gross harvesting of agricultural crops; reduction of livestock and livestock farming products; decrease of export potential of agrarian sector; slow growth of food processing industry; and sharp reduction of tax revenues in the budget, received from agrarian and processing sectors. Incentives for sustainable natural resource

management, such as of land and water resources, are affected by policies on prices and subsidies, trade barriers denying access to markets, neglect of drylands management, and lack of investments in maintenance of market roads and irrigation and drainage infrastructure.

32. Dryland management issues need more attention in agricultural policy, since there are vast areas which are arable but are not serviced by the irrigation networks. Such areas are more prone to droughts, have severe land degradation problems, and few programs which address their needs. For instance, in Kazakhstan, there are an estimated 59 million ha of degraded rangelands, of which 10 million ha have been ploughed and abandoned. In this context, The Government of Kazakhstan—with support from the World Bank, GM and IFAD—has prepared a pilot project for funding from GEF. The project proposal, which is at appraisal stage, targets the abandoned marginal cereal growing areas in the northern region of the country where farm ownership is being vested in individuals who have minimum experience in small-scale or commercial farming. Similar pilot projects in other CARs could help establish the basis for the sustainable development of drylands which are arable, but are lying unused, particularly in drought prone areas.

B. Water Resource Management Issues at National and Regional Levels

1. Patterns of Surface and Groundwater Use

33. As discussed earlier, irrigation is at the core of agricultural intensification in Central Asia. It is estimated that 90% of all consumed water is from surface sources, mostly for irrigation: 53% in Uzbekistan; 22% in Turkmenistan; 10% each in Kazakhstan and Tajikistan; and the remaining 5% in the Kyrgyz Republic. Thus, the two upstream states (Kyrgyz Republic & Tajikistan), which use only 15% of the water, supply the water needs of the other three downstream states, giving rise to a critical area of potential conflict. Groundwater is used mainly in the Kyrgyz Republic (20%) and in Kazakhstan (0.4%), while access to groundwater is shrinking in several parts of the region. The consumption of clean water per capita per day is only 5 liter, compared to 200-300 liters elsewhere. Table 5 provides a summary of overall water consumption patterns in the Aral Sea Basin.

Table 5: The Overall Structure of Water Use in Central Asia (km³ per year)

Total surface water in Central Asia	117.7
Groundwater use	11.4
Collector drainage water	6.0
Used for irrigation	108.4
Urban uses	9.3

*Source: Compiled by Mr. Sergey Myagkov, RETA Domestic Consultant for Uzbekistan.

34. Three main problems arise from this consumption pattern. *First*, the water gets polluted even before it is captured by an expanded network of irrigation and where it is subsequently affected by salinization. *Second*, water is treated as a free public good and is used in an excessive and wasteful manner. *Third*, with the excessive withdrawal of water by irrigation networks to meet the needs of agriculture, particularly for water-intensive cotton, the water flows to the Aral Sea have been so reduced that it has caused the “Aral Sea Ecological Disaster.” Significant portions of irrigated areas are subject to salinization—varying from 16% in Tajikistan up to 30% in Kazakhstan and 95% in Turkmenistan.. The ecological deterioration began in the 1960s, when large-scale irrigation networks were constructed to draw water from the Amu Darya and Syr Darya Rivers at the expense of water flowing to the Aral Sea. The Aral Sea, which used to receive some 60 km³/year of water until the 1960s, now only receives between 5 and 10 km³/year of water. The drying up of the Aral Sea is caused by the redirection of water resources for irrigation in Uzbekistan and the southern part of Kazakhstan, as well as for hydropower generation in Tajikistan. More than 15% of the water inflow from the Amu Darya River has been diverted since the construction of the Karakum Canal in Turkmenistan. Box 5 below shows the dramatic size of the damage caused by salinization. Annex 2 gives a summary of water resources and use in Central Asia. Thus, water resource issues are a mix of

issues to be managed at the national level coupled with those of a transboundary nature affecting neighboring riparian states which call for regional cooperation.

Box 5: The Challenge of Salinization

- 31 percent of the 7.9 million ha under irrigation have a water table of less than two meters and 28 percent have a medium to high levels of salt, with agricultural yields decreased by 20 to 30 percent.
- an estimated 137 million tons (about 18 tons of salt per ha/year or about six times the average yield of raw cotton) is the average annual discharge from the irrigated land;
- an estimated US\$ 2 billion (about 5 percent of Central Asia's GNP) is lost annually due to salinization, and losses will rise unless salinization is contained;
- water salinity peaks at over 2.0 g/l (in low water years in the delta areas of the Amu Darya and Syr Darya. This exceeds the WHO and EU recommended maximum levels of 1.5 g/l for the salt content for the salt content of drinking water, and
- in Turkmenistan, 37 percent of the country's irrigated land is now either waterlogged or high in salt or both.
- in Tajikistan over 15 percent of irrigated land suffers from salinity. Salinization affects mostly the down stream areas but is not confined to them.
- in Kazakhstan 25% of irrigated arable lands are affected by salinization. Of 1.4 million ha. of available lands suitable for irrigation, about 0.5 million ha. are not used due to secondary salinization and defects in irrigation network;
- Up to now 46% of irrigated lands of Uzbekistan are exposed to salinization, - 25% - weakly; 15% - moderately; and 6% - extremely strongly.

Source: GEF Project Document, Aral Sea Basin Program, May 1998; last 2 bullets from data in draft reports of respective RETA domestic consultants.

2. Issues of Water Management at the National Level

35. The main issues which appear to be engaging attention at the policy level in the CARs can be summarized as follows :

- (i) Water reservoirs, irrigation and drainage infrastructure—needs for rehabilitation, maintenance, safety and new schemes for network expansion;
- (ii) Water quality—salinization, pollutants and depleting stocks of freshwater sources;
- (iii) Water use efficiency—disincentives to prevent misuse; system inefficiencies; and
- (iv) Potable water—provision of safe drinking water in rural and remote areas.

36. In order to improve water efficiency, a five-pronged strategy should be considered:

- (i) switch from current irrigation practices, such as surface furrow irrigation to improved methods, such as drip and sprinkler irrigation, or subsoil irrigation of cotton, fruits and trees;
- (ii) invest in irrigation system improvements to bring down distribution losses;
- (iii) address drainage infrastructure and upkeep of collector drains to check salinization from reverse flows of polluted and saline water into agricultural lands;
- (iv) make on-farm irrigation management more participatory and responsible through organization of functioning water user association; and
- (v) introduce effective and reasonable cost recovery and water charges.

37. Part of the problem in water-use efficiency relates to the unclear situation regarding land and water user rights. For land located in irrigated areas, the right to use it is associated with the right to use the water—a right conferred through a license. Where water users associations (WUAs) have been formed, such as in Kazakhstan and the Kyrgyz Republic, it is necessary that the license be issued in

the name of the WUA entrusted with management of the on-farm irrigation system. The rules and procedures concerning water allocation and distribution need to be clearly specified. The success of WUAs in rehabilitating their systems depends on the transfer of responsibility to the WUA to manage, operate and maintain the irrigation system.

3. Issues of Water Management at the Regional Level

38. The issues of regional cooperation, for sake of brevity, may be grouped into three types: (i) water sharing arrangements; (ii) environmental management of the Aral Sea Basin; and (iii) cooperation on controlling the pollution of river flows. The first issue is discussed below, while the second and third will be discussed in Section D on regional cooperation.¹⁸

39. The water sharing system is based on the geo-political context of the former Soviet Union, which is no longer in existence. However, a number of agreements have been made between the governments in the region to guide the water allocation process and to resolve through discussion any major issues in this context (see Box 6). An Interstate Commission for Water Coordination (ICWC) was set up which facilitates quarterly consultations on water allocations. Decisions are taken through mutual agreement, based on patterns inherited from the Soviet period and weather. A Framework Agreement on signed by the four riparian of the Syr Darya River in 1998 provides the basis for annual agreements governing water releases hydropower generation as well as associated energy transfers from downstream to upstream states. These issues all are of a sensitive nature and need to be objectively studied at a technical level to provide a framework for mutually agreed decisions by the concerned governments at the highest level.

40. The concerns of the two upstream countries, the Kyrgyz Republic and Tajikistan, in this respect are mentioned in the respective Country IACDs. In case of the Kyrgyz Republic, the main concerns are briefly mentioned below:

- (i) Under the agreed arrangements, the Kyrgyz Republic is required to release water from Toktogul Reservoir in the upper Syr Darya Basin to the neighboring states in summer, which is the peak agricultural season when their demand for water is most urgent. On the other hand, the Kyrgyz Republic would prefer to release the water in winter to be able also to produce electricity, when its domestic demand for energy is the highest.
- (ii) In the south, the Kyrgyz Republic feels that the water allocated to it is not adequate, as this does not cover its requirements for the expansion of agriculture. Currently, Kyrgyz Republic, area under irrigation is 1.2 km², which it plans to increase to 1.5 km².
- (iii) The Kyrgyz Republic feels that it is not fair that it should be bearing the expense for the operation and maintenance of the entire water infrastructure for storing water (reservoirs, dams, and channels), which are located on Kyrgyz territory, and it argues that it should receive compensation through some form of cost-sharing arrangements. Uzbekistan, on the other hand, is keen to build a large storage reservoir in its own territory to better manage the release of water according to demand and climatic conditions .
- (iv) In the above context, it may be mentioned that under the umbrella of the 1998 Syr Darya Framework Agreement and related discussions, bilateral arrangements for sharing operation and maintenance costs between the Kyrgyz Republic and Kazakhstan have been worked out.

¹⁸ It may be noted in this connection, that ADB has recently approved a US\$ 150,000 technical assistance (TA) grant to study regional water management issues in Central Asia.

41. Tajikistan, a mountainous country, like the Kyrgyz Republic, generates hydroelectric power, which it supplies to Uzbekistan and Turkmenistan, though it also imports electricity from Uzbekistan for its southern parts. However, Tajikistan, producing 18ml.kW/h per year, still has a deficit in its power supply in the north, where industrial units are concentrated and more are anticipated in the future. Its demand for oil and natural gas is also growing. This creates a complex pattern of interdependence with its downstream neighbors in relation to water sharing arrangements. *The exploitation of water resources by hydroelectric projects, reservoirs and irrigation is one of the most important sources of potential conflict in Central Asia.*¹⁹ Reservoir construction causes serious problems (silt buildup, evaporation) in both the river systems of the Aral Sea Basin. For instance, such problems seem to be associated with the Nurek, Kairakum and Toktogul hydro centers.

42. There also related issues on disaster prevention and management, safety of reservoirs, and actions to organize coordinated responses to natural calamities—such as earthquakes, floods or land slides—which often transcend national boundaries. Common or agreed procedures and drills need to be put into force with minimum delay.

¹⁹ Tajik CAMIN Working Group, June 2000, NSAP for Sustainable Mountain Area Development of Tajikistan, p.67.

Box 6: Interstate Agreements on Water Resource Allocation²⁰

On October 12, 1991, the Water Ministers of the five basin States jointly declared that the Soviet principles of water allocation would remain in force, implying that the water sharing will be based on the legal documents²¹ and practices then applicable. Under these agreements, water use was shared approximately equally in each case, the obligations for maintaining the reservoirs and dams being fully assigned to the country on whose territory they were located. In later years a number of agreements have been concluded to supplement cooperation arrangements in the water sector:

- (i) An interstate agreement of February 18, 1992 established an Interstate Commission for Water Coordination (ICWC), responsible for determining and approving annual water allocations for each state and approving schedules for the operation of reservoirs. (There was an agreement concluded in March 1993 in respect to Aral Sea basin problems, establishing the Interstate Council for Aral Sea (ICAS) and related institutional framework, which will be discussed in a later section);
- (ii) In 1996 an agreement was concluded between Kyrgyz Republic, Kazakhstan and Uzbekistan on the Use of Water and Energy Resources of the Syr Darya Basin. It provided for fixed rates of water supply by Kyrgyz Republic to the two partner countries in exchange for their supplies of gas and coal to the electric stations in Bishkek and Osh. Actual water supply rates and other conditions are determined annually;
- (iii) Another agreement between Kyrgyz Republic and Kazakhstan concerns construction of dams and canals on the river Karkara for the purpose of the apportionment of water flowing from Kyrgyz Republic to Kazakhstan. However, this agreement was never put into effect, and all the water of the river basin flows directly to Kazakhstan without any apportionment.
- (iv) In 1998, Kyrgyz Republic and Kazakhstan signed an Agreement on the Use of Water Bodies and Hydro-energy Constructions in Joint Inter-State Use. The Parties confirmed the earlier apportionment of water resources. In this case, however, Kyrgyz Republic won the contentious point that Kyrgyz Republic would be entitled to compensation for expenses in ensuring the safe and reliable use of water, i.e. for maintaining and constructing reservoirs, dams and other structures in Kyrgyz Republic. The Parties also agreed to take measures to ensure a rational use and the protection of waters.
- (v) Kyrgyz Republic shares Sara Djas with China. There is no agreement with China on the use and protection of transboundary water courses.
- (vi) A framework for regional cooperation is provided by the Agreement reached on 17 March 1998 between the governments of Kazakhstan, Kyrgyz Republic, Tajikistan and Uzbekistan on the joint use of transboundary rivers, water units and hydraulic constructions, which included chapters on collaboration to reduce the negative effects of spring waters, mudflows and other natural hazards, such as outbursts of glacial lakes, in emergencies. A coordinating working group has been created to discuss the impact of transboundary disasters.

C. Issues of Environment Protection

43. Natural resource management practices in agriculture, irrigation, forestry and pastures have contributed to the problems of land degradation and pollution. There is a large common ground between approaches to sustainable natural resource management and measures to combat desertification. The main environmental challenges in the CARs are:

- (i) Deficit of water resources, salinization, wind and water erosion;
- (ii) Cutting of forests for fuel wood (requiring rural energy management to check deforestation through renewable energy development);
- (iii) Urban and industrial waste management, pollutants affecting quality of water, including trans-boundary aspects of pollution;

²⁰ See Economic Commission of Europe, *Environmental Performance Review, Kyrgyz Republic*, 2000.

²¹ The relevant legal documents are: Regulation on the Apportionment of Water in the Basin of River Chu adopted in 1983; Regulations on Procedures and Conditions for the Annual Distribution of Water Resources of the River Chu between Kazakhstan and Kyrgyz Republic of 1984; Regulations on the Apportionment of Water of the River Talas of 1983; The Protocol on the Inter-Regional Distribution of the Water of Small Rivers in the Fergana Valley of 1983; The Protocol of the Meeting on the Decade-based Apportionment of Water of the Rivers Sokh, Shakhimardan and Isfara between Uzbekistan and Kyrgyz Republic of 1981.

- (iv) Environmental health protection, including by improving access to safe drinking water;
- (v) Improving natural resource management and control of land degradation;
- (vi) Eco-friendly tourism & biodiversity preservation;
- (vii) Air pollution of urban areas;
- (viii) Environmental pollution in oil field areas;
- (ix) Wastewater pollution of water bodies; and
- (x) Mainstreaming environment management.

44. A major weakness is lack of strong policy and legislative underpinning and limited implementation enforcement and management capacity. There is also need to improve coordination between the ministries responsible for nature protection and environmental management, the focal institutions for NEAPs, the focal institutions for the UNCCD, as well as with concerned sectoral ministries, such as agricultural ministry water resources ministries and economic planning agencies. CARs have adopted a number of laws to protect the environment. The nature protection legislation has created an economic and social background for environmental safety, based on universally accepted environmental protection principles and wise use of natural resources. The main limitations of legislation in the CARs are: serious inconsistencies in legislation; weak administrative capacity to implement laws; and considerable scope for bureaucratic discretion in application of laws and regulations. In this context, attention needs to be paid to strengthening the laws, regulations and guidelines relating to land use and water resource management. There is also need for rationalizing and improving environmental legislation, particularly with a view to strengthening the provisions with respect to combating desertification. Relevant environmental regulations should be included in legislation of industry and trade and tax legislation, as well as rules on privatization, foreign investments, trade, insurance, regional development for purposes of harmonization. However actual performance has been slow. A recent World Bank assessment (May 2003) on the “Meeting the Environment Millennium Development Goal in Europe and Central Asia”, shows that the Central Asian countries have not made much progress in respect of all the three global environmental targets: access to safe drinking water and basic sanitation, integrating sustainable development into the country policies and programs, and increasing success to secure tenure. Overall, Turkmenistan and Tajikistan were ranked in the lowest group, the Kyrgyz Republic and Uzbekistan in the second group, and Kazakhstan in the third higher group in a ranking comprising five groups.²²

D. Issues in Regional Cooperation

45. Strengthening regional cooperation is crucial to combating desertification, because many land degradation issues are rooted in cross-country ecological zones and hydrology. Moreover, much of water storage and irrigation infrastructure was based on an integrated design, as was economic specialization. This is fully recognized by the governments of the Central Asia region. Regional cooperation agreements and associated institutional frameworks have evolved since the early nineties in response to essentially four catalyzing factors:

- (i) *Within the framework of cooperation within CIS.* In the environment area, an Inter-State Ecological Council of the CIS was established. The ISEC has focused on: (i) coordination of environmental cooperation; (ii) development of legislation and standards for environmental protection; (iii) environmental monitoring; and (iv) exchange of information. More recently issues of water management and investments in clean drinking water and sanitation in the newly independent states were also highlighted in a Ministerial Consultation.
- (ii) *In the context of water, and other compelling transboundary issues.*²³ In the context of water problems, regional cooperation agreements have been reached on: (i) water sharing

²² World Bank, “Meeting the Environment Millennium Development Goal in Europe and Central Asia”, May 2003, Table 2.

²³ Apart from water, other areas include cross-border security operation, transport and trade barriers—the latter has been the focus of active involvement by ADB.

arrangements (discussed in an earlier section); (ii) Aral Sea Basin; and (iii) Caspian Sea Basin. GEF and World Bank are involved in a water and environment management project – Aral Sea Basin Program.²⁴ A number of other agencies, such as UNDP, TACIS and some bilateral donors, and more recently GM are also involved in the ASBP or in some other complementary activities. As for the Caspian Sea, the countries involved²⁵ have considerable differences based on national and geopolitical interests, which come in the way of any meaningful cooperation.

- (iii) *In response to natural emergencies.* Such bilateral and multilateral agreements provide for intergovernmental cooperation to cope with natural disasters. However, mechanisms have yet to be developed for implementing existing agreements between the CAR countries in the area of protection and conservation of transboundary waterways.
- (iv) *In response to international initiatives for Regional Action.* This has mainly been on relatively soft issues, funded by external agencies. As an example, ADB has provided TA²⁶ (financed by Finland) to assist with the preparation of the Regional Environmental Action Plan (REAP) in Central Asia; and another TA²⁷ (cofinanced by Switzerland) for Regional Cooperation for Sustainable Mountain Development in Central Asia. CARs have generally been quite supportive of such initiatives in the hope that these will provide a basis for increased funding support for the implementation of mainly national programs, with some technical level regional cooperation.

46. The GEF/World Bank Aral Sea Basin Program (ASBP) has been the leading mechanism for regional work on water and land management in Central Asia. ASBP was designed on the premise that the regional institutional framework established by the CARs to check the Aral Sea disaster could, with some strengthening and capacity support, be used as the key vehicle to implement this program.

47. Cooperation among of five countries with territory in the Aral Sea Basin started soon after the disintegration of the former Soviet Union. By their Agreement of 26 March 1993, they established regional institutions charged with comprehensive water management. The institutional framework developed has evolved over the years. In February 1997, at the meeting of Heads of State, the Interstate Council on the Aral Sea Basin (ICAS) and the International Fund for the Aral Sea (IFAS) were merged into IFAS, and the new IFAS became an implementing agency for GEF. Its Executive Committee consists of five Deputy Ministers, responsible for agriculture, water and environment. The Executive Committee (EC-IFAS) reports to the Executive Board. Box 7 shows a stylized institutional framework for cooperation on water, environment and sustainable development.²⁸

48. The GEF approved the ASBP in May 1997, providing a grant assistance of \$12 million. Associated financing of over \$60 million had been expected from the investment projects in irrigation drainage sector to be financed by the World Bank in CARs and through technical assistance by some other donors, including UNDP. The project's objective was to address the root causes of the overuse and pollution of water in the Aral Sea Basin, support the sustainable management and future development of its natural resources by formalizing, and then implementing the first stage of, a regional strategic action plan. It was to help the five states sharing the Basin to: (i) develop and implement regulations, and national water management strategies and agreements focusing on water

²⁴ GEF Project Document. May 1998.

²⁵ Turkmenistan, Kazakhstan, Azerbaijan and Iran have some differences based on national interests (see Turkmenistan IACD).

²⁶ ADB-TAR: OTH 33547, September 2000 (RETA #).

²⁷ ADB-TAR: STU 33099, December 1999 (RETA# 5978).

²⁸ Prepared by International Consultant RETA for illustrative purposes. Source: ADB, UNDP, UNEP: "Concept Paper on Regional Cooperation in Central Asia", Draft 9 April, 2002.

uses, efficiency and sharing; (ii) assess water quality problems, develop cost-effective strategies to improve water quality; (iii) expand and upgrade monitoring and regional data-bases on water quantity, dynamics and quality, enhance a regional environmental information system in order to support decision-making; (iv) restore certain Aral Sea wetlands; and (v) support campaign to educate the public about the nature/extent of the problems. In December 2000,²⁹ the project implementation status was rated unsatisfactory primarily due to delays in start-up and other issues need to be resolved for the center piece sub-component for national and regional salt and water management studies. Subsequent attempts to get the project back on track were complicated by the move of EC-IFAS from Tashkent to Ashgabat and now to Dushanbe. Though a final evaluation has yet to be conducted, the results are generally considered to have been disappointing, and there has not been the degree of investment follow-up anticipated. Nevertheless, EC-IFAS will launch a proposed next phase ASBP-2 Program in Dushanbe on 20-22 June 2003.

49. *The main lesson from the implementation experience appears to be that a regional program implemented by regional institutions does not pull sufficient weight with national governments to make the project move with speed. Another option may be to have a regional program based on national implementation, with an umbrella regional coordination and facilitation mechanism.*

50. There are some other characteristics of regional cooperation arrangements in general which limit their operational capability:

- (i) Regional agreements are generally in the nature of declaration of intent, or expression of agreement at the level of principles, and lack specificities for implementation or enforcement.
- (ii) Regional agreements also are seldom in the nature of treaties that are legally enforceable, nor do they have clear mechanisms for conflict resolution.
- (iii) There also appear to be certain political sensitivities that prevent conclusion of more definitive agreement, which are perceived as ceding decision making function to supra-national entities. Having attained independence, the governments and people are keen to establish their national and cultural identities which encourage tendencies of separation rather than integration.

51. Notwithstanding these limitations, there is need for regional cooperation on a number of areas in the context of effectively dealing with environment, land degradation, rangeland management and issues of trade restrictions and transport and communications. What keeps cooperation arrangements going are issues on which there is perceived commonality of interests and objectives, without limiting in any way national authority on key decisions. What has kept intra-region peace and harmony intact is not so much the existence of regional accords, as the excellent contacts which exist at the level of the heads of state. This averts any serious inter-state crisis from getting out of control. However, regional cooperation arrangements need to be institutionalized, made more stable, and deepened in scope for the sake of optimizing externalities and having a certain degree of division of labor to realize greater cost effectiveness and efficiency.

52. In the above context, the ADB, UNDP, UNEP jointly brought out the "Concept Paper on Regional Cooperation in Central Asia"³⁰ as a follow-up of the regional environmental action plan (REAP) and in response to the requests from the Governments. The Concept Paper suggests the following broad objectives for regional cooperation for the implementation of REAP, which have wider applicability for other areas of regional cooperation, including for the sub-regional action program to combat desertification in Central Asia (SRAP), which is currently under preparation:

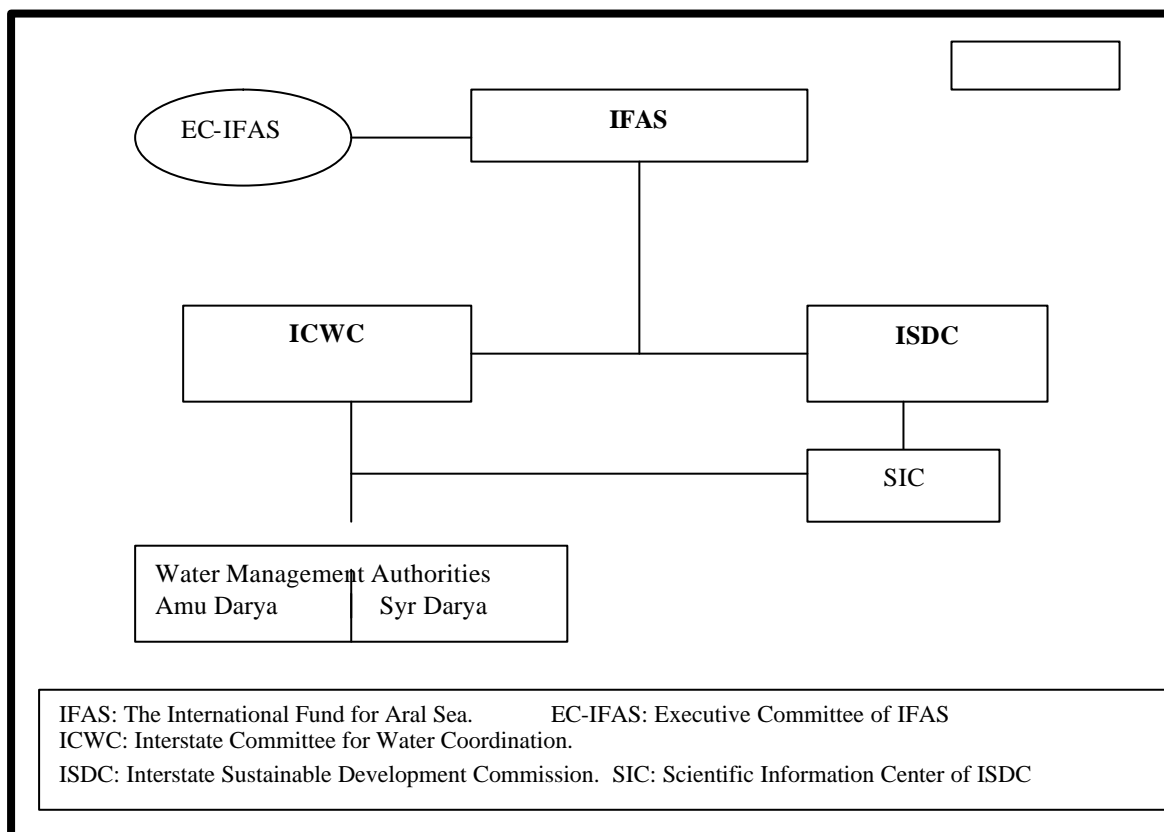
²⁹ The latest currently available on the GEF web-site.

³⁰ Draft 9, April 2002.

- (i) Enhance a mechanism for strengthening regional cooperation;
- (ii) Establish a decision support system to strengthen regional cooperation, and
- (iii) Promote REAP implementation.

53. The link between these objectives is ensured by their integration into one logical framework. REAP will continuously facilitate strengthening of regional cooperation through establishment of comprehensive cooperation policy framework in the area of environment and sustainable development. REAP will update and review the regional key priorities, develop prioritized project proposals to implement the identified cooperation policy, and contribute to sustainable use of natural resources. Decision support system will become an integrated part in the implementation of REAP providing continuous information update and support to decision-making process. It will be based on the REAP regional priorities.

Box 7. Regional Framework for cooperation in water and natural resource management



V. SUPPORT FOR PROGRAMS TO COMBAT DESERTIFICATION AND CONCLUSIONS

54. The key constraints to the effective implementation of CCD-NAPs were discussed in Part II, and the underlying issues of the enabling policy environment were discussed in Part IV. This Part focuses on the major program areas where funding support of external donor agencies are critical in reinforcing national efforts to combat desertification. The discussion is organized as follows:

- *Section A:* describes the main reasons why the UN Convention to Combat Desertification has not attracted donor attention in Central Asia from the perspective of invest support— an issue which was also discussed in the earlier parts from the perspective of the inadequacies of NAP in integrating CCD concerns into national budgetary, planning and PRSP processes and in the core policy agenda.
- *Section B:* discusses the main priority areas for support to overcome the constraints to the implementation of CCD/NAP. Its focus is on requiring technical assistance support through grant financing and investment programs requiring lending support from IFI's. The technical support is required for (i) institutional strengthening of the designated CCD National Focal Points (NFPs); (ii) capacity building support in policy and program development; (iii) strengthening capacity of decentralized local governance structures, NGOs and Civil Society to participate in community-based, local area development pilot projects (LADPs) to combat land degradation; and (iv) support for a few priority areas of research and study. As regards investment programs the position is far less clear because of limitations of absorptive capacity and for reasons of fiscal consolidation and objective to limit borrowing except on quasi-grant terms.
- *Section C:* discusses possibility of developing an umbrella regional program for ADB/GEF/GM collaboration and financing to address some cross-boundary issues related to land and water degradation.
- *Section D:* provides a summary of main conclusions

A. Why CCD Has Not Attracted Attention

55. So far direct support to NAPs has been modest mainly because of the following reasons.

- Even though desertification involves highly visible phenomena—sand storms, saline and polluted water, eroded landscape in the steppes, arid climate—the CARs have not been able to mainstream these concerns into their national policy or planning frameworks, such as PRSP or PIP processes.
- The CCD-NAPs have stayed as stand-alone technical reports of considerable scientific value, but weak at the level of operational and programmatic content. The focal institutions for CCD implementation have not been proactive in bringing CCD concerns into focus within the national policy making apparatus.
- The donor agencies, at multilateral and bilateral levels, while supportive of the international environmental agreements (i.e., the Rio Conventions and Agenda 21), have largely treated them at the fringes of the core instruments of policy articulation, or the agenda for policy dialogue. As a result, the programs directly addressing those concerns have remained somewhat lower down in priority in the support for macroeconomic or sectoral reforms, and to some extent the broader area of environmental protection has served as a proxy for fairly distinct mandates and needs of multilateral environmental agreements, both individually and as a synergistic cluster. Thus the stand alone nature of NAPs is somewhat matched by the

aloofness of the development partners in making the issues such as land degradation, and perhaps to lesser extent of biodiversity as a distinct part of the core macro and sectoral policy agenda.

56. As far as CCD is concerned, its cross-cutting and integrated approach offers a convenient and flexible framework to build land degradation related activities into the scope of most agricultural and rural development projects. Thus, with a small degree of additional effort at the identification and design stage, components supportive of land degradation can be built into the scope of investment and technical assistance projects. Some of the projects or programs aimed at controlling land degradation can be self-selecting, such as the irrigation and drainage projects in Central Asia. Both ADB and the World Bank have financed such projects in some of the CARs (such as, the Kyrgyz Republic and Uzbekistan). Some other projects in agriculture, forestry and livestock sectors, supported by multilateral and bilateral agencies also address directly or indirectly problems in ways which are clearly supportive of CCD objectives—though CCD was not the reason why these projects got selected or the way they got designed. *In some ways the crosscutting nature of CCD makes the resources devoted to addressing land degradation “invisible”—to be counted only by way of attribution and not as a conscious act of allocation. However, it is important that such programs (or components) are identified by the governments and supported by the development partners as a matter of conscious decisions to contribute to the implementation of the CCD. Otherwise, such support emerges as a case of post-facto attribution.*

B. Some Key Areas for Technical Assistance and Investment Support

57. The implementation of CCD/NAPs in Central Asia is in a state of stall for three basic reasons: (i) weak institutions, (ii) capacity limitations leading to underperformance, and (iii) lack of funds (which partly is responsible for the first two constraints). The Governments do accord high priority to desertification/land degradation and are aware of its serious consequences for growth and poverty. However, domestic resources are limited and other priority areas, particularly those heavily emphasized by the development partners in policy dialogue and in their own aid programs tend to crowd out land degradation concerns. Thus, technical assistance to boost the institutions involved in CCD/NAP implementation, and to build their capacity to better articulate, implement and manage the programmes to prevent and control land degradation would have a multiplier effect to raise the profile and performance of the CCD in the CARs. The main areas requiring support have been discussed in each Country IACD, and in Part II, and are briefly mentioned below:

- (i) **Institutional strengthening of the Focal Institution and NFPs.** The suggestions emerging from the NFPs in this connection at the Working Meeting in Tashkent in October 2002 (see Para 14 of Section C, Part II) merit serious consideration of the governments to formalize the status of the NFP/CCD and to raise the profile of CCD/NAP as an important development program to be supported both from the domestic budgetary resources and with external technical assistance in areas such as (a) staffing and equipment; (b) electronic/internet connectivity; (c) translation facilities. NFPs, as the operating arm of CCD need to be empowered to be able to effectively discharge their challenging task.
- (ii) **Capacity-building support for the Focal Institution and other concerned agencies.** The main areas requiring TA support are:
 - (a) Program/project preparation capacity—to strengthen capacity to develop cross-sectoral and participatory project proposals to combat land degradation. These documents need to be prepared to the standards and requirement of the interested donor agencies—such support may require use of international consultants working with national counterparts drawn from focal institutions as well as other relevant agencies. The training should include areas such as project identification, design and implementation.

- (b) Funds for quality translation of NAPs, project proposals and related supporting documents, and relevant legislative provisions and regulations. Provision may also be made for translation and publication of relevant policy or technical papers for wider dissemination.
 - (c) Selective training in donor agency procedures and requirements, as well as in key cross-cutting policy concerns—gender, participation, NGO/civil society involvement.
- (iii) **Capacity building support to local governance structures, NGOs and community organizations.** NGOs in Central Asia have considerable expertise to be used as service providers. However, they need training in social mobilization, group dynamics, accounting and implementation of community-based pilot initiatives. This is an area where GTZ has been active in the CARs.

58. Capacity building is an area which has received extensive support from donor agencies, including under the UNDP (Agenda 21 Capacity Building Project and also under ASBP). Therefore, to the extent possible existing capacity building programs, mechanisms or funding sources could be used to meet the critical capacity building needs for the CCD implementation. If possible, a regional trust fund arrangement may be considered, to be nested in one of the international institutions, to manage and oversee capacity building needs in each of the Central Asian countries in respect to CCD/Rio Conventions.

59. Based on the discussions in the Country IACD reports, a number of high priority areas for research or for pilot activities, suggested by the CCD-NFPs, have been mentioned (with a cautionary note that given resource constraints, strict criteria should be applied in establishing priorities). Apart from the need-based criteria about relevance and on-the-ground applicability, a problem and response prioritization process should be based on: the biophysical dimensions of a particular problem; the number of expected beneficiaries (especially poor and women; institutional feasibility, and benefit-cost calculations of alternatives. In this context, two regional studies covering all the five CARs, to be essentially undertaken by national experts under international supervision, are mentioned below for potential support:

- (i) *A study on improving the ongoing monitoring systems relating to land degradation as defined in the CCD.* All CARs have systems in place to monitor data on climate trends, temperature regimes and rainfall, erosion and deflation of soils, water flow rates, changes in land use etc, which are mentioned in the NAPs. Some of them also include discussion on methods, indicators and areas of research on problems of desertification and drought, including work on remote-sensing. However, these monitoring systems seem to have two broad areas of weakness: (a) while considerable time series data, disaggregated by oblasts and sub-districts, is available on different aspects of ecology or desertification, gathered by different agencies, the discrete data-bases are not yet tied together into a coherent system to yield meaningful outputs for an early warning system or other actionable tools; (b) the monitoring systems are often part of a larger environment monitoring exercise with diffused focus. As a first step, it would be useful to have a state of art study focused on land and water degradation control. This could be entrusted to an expert group from all the five countries, under some appropriate international supervision.
- (ii) *Best practices in technologies and approaches to combating desertification.* Considerable research has been undertaken since the Soviet era in various research institutions in the region on improving soil fertility, infiltration irrigation (or sub-irrigation) as way of feeding water directly into the sub-soils, improved quality of fodder production. Some of these researches were discontinued for want of funds. Some of them may no longer be valid. While there may be some best practices which require further field testing and validation, for possible replication. As a first step, a TA grant would focus on the design of such a study or workshop, to identify the best practices based on current knowledge base in the CARs in areas which at this stage could be grouped into broad clusters: agriculture and ecology; water management;

pastures & fodder management; institutional innovations, including beneficiary participation and local knowledge. It could then be determined if, and how, the knowledge on the most relevant best practices could be captured for more in-depth research or field trials. Again, much of this work could be undertaken by national researchers under international supervision.

60. As discussed in the Country IACDs, the NAPs do not include much by way of proposals for investment projects to combat desertification/land degradation. The Country Situation Papers also included only projects requiring technical assistance. However, there are real sector investment needs in rural infrastructure, irrigation and drainage, drinking water supply, forests and shelter belts, land rehabilitation. These projects pertain to agencies outside the CCD Focal Institution. Hence, these are kept out of the purview of the CCD NAP. However, both the World Bank and ADB have investment projects in their pipelines for the CARs which, with some design modification, could include components of direct relevance to land degradation control. Thus, at present, it is preferable to focus on projects being considered by multilateral financing institutions in agriculture, water, natural resource management, rangelands and forests, where land degradation problems arise. The CCD Focal Institution/NFP may collaborate with concerned government agencies with a view to incorporating some relevant activities or reorienting some components in such projects from the perspective of CCD concerns. In the current state of budgetary stringency, any new investment projects would need to meet PIP criteria for inclusion in the public investment program.

C. Developing a Regional Umbrella Central Asia/GEF Cooperation Program to Control Land and Water Degradation

61. A new window of opportunity has opened with the amendment to the GEF Instrument “to designate land degradation, primarily desertification and deforestation, as a focal area, as a means of enhancing GEF support for the successful implementation of the UN Convention to Combat Desertification.” In this context, the GEF draft OP-15 on Land Management states that “GEF assistance would focus on funding the agreed incremental costs of accelerating country-driven actions on sustainable land management to preserve ecosystem stability, functions, and services; reduce carbon dioxide emission and improve carbon sequestration; or stabilize sediment storage and release in waterbodies”. GEF assistance could cover three inter-related types of interventions—capacity building, on-the-ground investments, and targeted research—at the community, national, and/or transboundary levels.

62. Draft OP-15 also emphasizes that the environmental conventions need to develop *joint work programs* to address land degradation and deforestation to achieve multiple global benefits, including poverty alleviation; and preservation of ecosystem stability, functions, and services such as soil and watershed protection, carbon uptake and storage, water purification, climate regulation; and nutrient retention.

63. It is suggested that a program approach may be pursued in the Central Asia region on the model of a GEF program for Western China being implemented by authorities of the People’s Republic of China (PRC) which ADB is facilitating. The program is called PRC/GEF Partnership on Land Degradation in Dryland Ecosystems—Multiple Focal Areas/OP 12 on Integrated Ecosystem Management. It follows the program approach, with individual sub-projects identified by the PRC authorities being appraised for inclusion in the umbrella program.

64. A similar umbrella program may be conceived in the context of Central Asia, with sub-projects being identified by each participating CAR for financing under the Program. The implementation model may follow the principle of regionally coordinated and nationally executed program. The umbrella program, focused on prevention and control of land degradation, would comprise a string of specific sub-projects, to be identified by each participating CAR, which address certain aspects of land degradation in specific local contexts, such as a river basin, or a rangeland. Such a sub-project, besides addressing the prevention and control of land degradation at the local

levels will also address the global environmental dimensions of such an intervention and meet GEF criteria both on project scope and cost sharing/ cofinancing. Some regional activities under the proposed CCD SRAP for Central Asia could be included in the umbrella program, which may be cofinanced by interested SPA partners. A tentative outline of such an umbrella program is provided in Annex 4.

D. Conclusions

65. The Central Asia region faces serious problems of land degradation due to a complex interplay of natural and human causes, with serious consequences for natural systems, soil fertility and the quality of water resources. The main problem areas are: (i) increase in land and water salinization; (ii) decline in production and yields of major cash and food crops critical for foreign exchange earnings and national food security; (iii) degradation of pastures due to overgrazing and loss of fodder productivity and quality due to removal of vegetative cover; (iv) severe degradation in the quality of water and its wasteful use; and (v) the drying up of the Aral Sea, with huge adverse socio-economic and environmental effects. An estimated US\$ 2 billion (about 5% of Central Asia's GNP) is lost annually due to salinization. Agricultural yields have decreased by 20 to 30 percent.³¹

66. The Central Asian Republics are cognizant of the enormity of the challenge posed by desertification. All the CARs were prompt in ratifying the UN Convention to Combat Desertification, designating major government agencies as focal institutions, and senior officials in those agencies as national focal points for CCD. All CARs have prepared the National Action Programs (NAPs) for implementation. The process of implementation has, however, languished due to lack of financial resources and follow-up policy attention.

67. Apart from these domestic budgetary constraints, the CARs have been unable to access donor funds, because of the inability of the countries to use NAPs as a dynamic instrument of resource mobilization. While the CAR NAPs are serious technical documents, they are weak in programmatic content, are available mainly in Russian and have largely remained documents for the shelf.

68. The interface between the NAPs and the process of preparing national strategies for poverty reduction and the Public Investment Programs has been weak, if not altogether absent. This has resulted in difficulties in integrating NAPs into the PRSP framework to capture attention of the senior policy making organs.

69. The PRSP process itself has not made much headway, because most governments of the region have opted for a gradual, and in some ways cautious approach to second generation economic and social policy reforms. Major problem areas include administered prices and subsidies, weak fiscal discipline and lack of transparency, rising debt burden, delays in relaxing restrictive foreign exchange and trade regimes, slow process of privatization, corruption and poor governance. However, progress in policy reforms shows considerable variation among the CARs.

70. The major challenge for CCD implementation is the strengthening of linkages between land degradation issues and agricultural policies. Slow progress in land reforms, treating water as a virtually free good, and weak agricultural support services have all aggravated pressure points on an already delicate ecological situation. While statute books are replete with an extensive range of laws dating from the Soviet times and independence period—including nature protection legislation, land and water codes—such laws are often vague, lack clear set of regulations, and machinery to enforce them. Urgent interventions are needed at the level of both policies and programs to tackle these problems, focusing in particular on issues of direct relevance to combating desertification.

³¹ GEF/World Bank, Project Document, Aral Sea Basin Program, May 1998;

71. Priority actions in the area of policy include:

- (i) Water resources management at national and regional levels to improve water allocation arrangements, strengthen and rehabilitate irrigation, drainage and water storage infrastructure, prevent deterioration in water quality and improve water efficiency. At the regional level, issues of water sharing between riparian states are quite sensitive, and the Aral Sea environmental management program, being implemented by the regional institutional framework (IFAS) has been slow in progress.
- (ii) Agriculture sector and land reforms are crucial with a view to (i) correcting policy bias against using it as a resource to extract surplus for the rest of the economy, (ii) ensuring secure and long term land use rights, and (iii) encouraging private service providers for agricultural support services including rural financial services.
- (iii) Flexible and workable frameworks for regional cooperation to tackle transboundary issues and to harmonize national actions to combat desertification. Regional cooperation should aim to enhance mechanisms for regional cooperation, and establish a decision support system to strengthen regional cooperation.

72. Priority actions at the level of program support include:

- (i) Technical Assistance to: (a) strengthen institutional framework and capacity of national focal institutions and focal points responsible for UNCCD in the CARs; (b) train staff of the focal institution and other concerned agencies in program development; (c) strengthen capacity of local governance structures, NGOs and community leaders in participatory local area development; and (d) stand alone TAs in certain important areas such as strengthening monitoring systems, capturing best practices.
- (ii) Investment program support based on projects and programs evolving from the pipelines of IFIs with a view to incorporating activities or components to reflect CCD concerns in the course of design of such projects.
- (iii) Preparation of an umbrella CARS/ GEF partnership program focused on land degradation as a distinct GEF focal area—with potential to serve as a basis of wider resource mobilization in collaboration with GM.

73. Capacity building is an area which has received extensive support from donor agencies. Therefore, to the extent possible existing capacity building programs, mechanisms or funding sources could be used to meet the critical capacity building needs for the CCD implementation. If possible, regional trust fund arrangement may be considered, to be nested in one of the international institutions, to manage and oversee capacity building needs in each of the Central Asian countries in respect to implementing commitments under multilateral environmental agreements, including the UNCCD.

74. The donor agencies, at multilateral and bilateral levels, while supportive of the global environmental agreements, have largely treated them at the fringes of the core instruments of policy articulation, or the agenda for policy dialogue. More direct support for the CCD and other environmental conventions in the PRSP process would help raise their profile in national development framework.

A. National Action Plans (NAPs) for Rio-Conventions

UN CONVENTION	(a) Year when Ratified; (b) Year when NAP Adopted				
	Kazakhstan	Kyrgyz Republic	Tajikistan	Turkmenistan	Uzbekistan
Convention to Combat Desertification (UNCCD)	(a) July 1997 (b) 1997*	(a) Sep. 1996 ^x (b) 1999+	(a) Aug. 1997 (b) 2000	(a) June 1996 (b) 1996	(a) Aug. 1997 (b) 1999
Convention on Biological Diversity	(a) Sep. 1994 (b) 1998	(a) Aug. 1996 ^x (b) 1998	(a) Feb. 1997 (b)	(a) June 1996 ^x (b)	(a) Oct 1997 ^x (b) 1998
Framework Convention On Climate Change	(a) May 1995 (b)	(a) (b)	(a) Aug. 1997 (b)	(a) June 1996 (b)	(a) May 1993 ^x (b)
Some Other Environmental Action Plans					
Preparation of NEAP (National Environment Action Plan)	1998	1995		2000	
Termination of the Use of Ozone Destructive Substances	2000				1998
Others		1997 (Human Development & Environmental Safety)	Ecological Programme- 1998-2008	1999 Government Commission for the fulfillment of the Obligations of Turkmenistan in respect of the Conventions and Programs of the UN in the environment sphere	1998 National Action Plan for the Environmental Hygiene. 1999 National Strategies on the decrease of the Greenhouse Emissions

Source: The Regional Environmental Centre For Central Asia on NAPs, and other diverse sources for dates of ratification/accession/ approval.

* A revised NAP expected to be adopted in 2002 by Kazakhstan; ^x Accession;

+ The Kyrgyz NAP was formally approved on 8 December, 2000.

B. National Focal Institutions & Focal Points for UNCCD

Country	Focal Institution -CCD	National Focal Point/ National Coordinator of -UN CCD
Kazakhstan	Ministry of Environment Protection, Astana	Mr. Atamura Shamen Director of the Department of Ecological Policy Tel. (7-3162)-255-478. Gen:(7-3162) 255-538 Fax: (7-3162) 255-537
Kyrgyz Republic	Kyrgyz Scientific and Research Institute of Irrigation (National Center to Combat Desertification) Ministry of Agriculture & Water Resources, Bishkek	Dr. Kubanychbek Kulov, Director (996-312) 541.168 kulov@elcat.kg
Tajikistan	State Committee For Land Management of the Republic of Tajikistan	Davlatsho K. Gulmahmadov Chairman (Deputy Minister) (992-372) 21.73.21 nusrat@tadjik.net
Turkmenistan	National Institute of Deserts, Flora & Fauna Ministry of Nature Protection	Dr. Muhamet H. Durikov Head of the Laboratory of Forests & Rangelands (99 312) 357-298 crsptur@online.tm
Uzbekistan	Main Administration of Hydrometeorology (GLAVGIDROMET), Cabinet of Ministers, Tashkent Sanigmi@albatros.uz	Mr. Zokhidjon Nazirov Deputy Director of Central Asia Research Hydrometeorological Institute (SNIGMI) of Glavgidromet (99871) 136-0758 uzhymet@meteo.uz

**C: ADB-RETA: 5941 REG: Combating Desertification
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Water Resources & Use in Central Asia

	Kazakhstan	Uzbekistan	Turkmenistan	Kyrgyz Republic	Tajikistan	Total CARs
1. Size & Population						
Total Area (Km ² million)	2.7	0.5	0.5	0.2	0.1	4.0
Population (mil)	14.9	24.7	4.8	4.9	6.3	55.6
2. Area under irrigation (1995) (million ha)						
(i) Amu Darya Basin	0	2.48	1.74	0	0.43	4.65
(ii) Syr Darya Basin	0.74	1.80	0	0.46	0.29	3.29
Total (i+ii)	0.74	4.28	1.74	0.46	0.72	7.94
% of total irrigated area (%)	9	54	22	6	9	100 %
3. Water Resource (km ³ /year)						
(i) Amu Darya Basin						74 - 75.
(ii) Syr Darya Basin						42 - 43
Total (i+ii)						116 -118 ^a
4. Total water use (km ³ /year)						
(i) Amu Darya Basin	0	34.9	23.1	0	8.1	66.1
(ii) Syr Darya Basin	11.0	23.1	0	5.1	3.9	43.1
Total (i+ii)	11.0	58.0	23.1	5.1	12.0	109.2
To Aral Sea						
(i) Amu Darya Basin						+ 5.1
(ii) Syr Darya Basin						+ 2.8
Aral Sea (i+ii)						+7.9
Total water use						117.1
5. Water Use for Irrigation (km ³ year)	9.7	53.0	22.4	4.6	10.3	100.0
% for irrigation use	88%	91%	97%	90%	88%	91%

Source: For 2, 4 & 5: GEF Project Document "Water & Environment Management Project", 1998. Table 2.

^a See estimates in Annex 3.

Annex 3A. Dominant Forms of Land Degradation Occurring in Major Ecosystems in Asia

Type of Ecosystem	Predominant form of land degradation
<i>Forest</i>	<ul style="list-style-type: none"> • Deforestation – Considered as one of the most pervasive problem in the region. The World Resources Institute (WRI) recently estimated that the annual deforestation in Asia is placed at 3 million ha per year. The destruction of the forests is mainly a result of clearance for agriculture. The search for fuel wood and the growing frequency and severity of forest and bush fires have also taken their toll. • Soil erosion – A serious form of land degradation especially once the vegetative cover is removed. Predisposing factors are the high intensity of rains (common in monsoon areas), steep slopes, and the low resistance of the soil to water erosion.
<i>Agro-ecosystem</i>	<ul style="list-style-type: none"> • Soil erosion – A prevalent problem for agroecosystems. The causes depend on many factors such as the type and characteristics of soil and location. The key agents, however, are water and wind. FAO and WRI in their recent assessment identify soil erosion in the region could seriously undermine the long-term productive capacity of many agricultural systems. • Nutrient depletion – A form of degradation that deals with the reduction or loss of valuable soil nutrients or organic matter. This form of degradation occurs when inappropriate agricultural management techniques are applied, e.g., misapplication of inorganic fertilizers, use of inappropriate crops for the type of soil, and improper harvesting techniques that remove the organic matter in the soil. • Waterlogging – A common occurrence in irrigated areas where the water table rises to the root zone of the soil profile. As a result, plants are deprived of oxygen and “drown”. Waterlogging is a serious problem in most flat and plain agricultural areas where drainage is poor. • Salinization – A soil degradation problem associated with waterlogging. It is the slow buildup of salts in the soil and sodification, the saturation of the exchange complex with sodium.
<i>Grassland</i>	<ul style="list-style-type: none"> • Overgrazing – Most grasslands in the region are under attack from intensive grazing and from the incursion of marginal agriculture which often fails and leaves behind degraded land. In the region, as grazing areas decreased, livestock sizes increased. Grazing areas are often located at the source of important catchment areas, influencing downstream agricultural and settlement so the cost of their deterioration is high. Similarly, degradation of grasslands is particularly serious in countries where grazing lands are used communally, but livestock are treated as private property.
<i>Coastal</i>	<ul style="list-style-type: none"> • The conversion of mangrove areas for aquaculture is a leading cause of coastal erosion. Urban expansion following the phenomenal shift of population from rural to urban areas have also set the stage for encroachment on prime agricultural areas which has become a major form of land degradation.

Source: ADB, “Opportunities for implementing the UN Convention to Combat Desertification in Asia”, 2002.

**Annex 3B. Extent of Desertification of Lands in Aral Sea Basin
By Type and Intensity (in km²/ %)**

Type of degradation	Class of degradation			
	weak km ² /%	moderate km ² /%	strong km ² /%	Total km ² /%
Lands used or potentially suitable for use				
1. Degradation of vegetation cover	<u>750954</u> 53.5	<u>307957</u> 21.9	<u>23704</u> 1.6	<u>1082615</u> 77.0 %
2. Deflation of sands	<u>14677</u> 1.0	<u>2140</u> 0,2	<u>3970</u> 0.3	<u>20787</u> 1.5 %
3. Water erosion of soils	<u>53009</u> 3.8	--	--	<u>82578</u> 5.9 %
4. Salinization of irrigated land	<u>12959</u> 0.9	<u>105095</u> 7.4	<u>11125</u> 0.8	<u>126179</u> 9.1 %
5. Salinization of land caused by lowering of the Aral Sea level	<u>6115</u> 0.4	<u>4027</u> 0.3	<u>39055</u> 2.9	<u>49197</u> 3.6 %
6. Technogenic desertification	--	<u>20208</u> 1.4	<u>14296</u> 1.0	<u>34504</u> 2.4 %
7. Swamping of pastures	--	<u>5360</u> 0.4	<u>1620</u> 0.1	<u>6980</u> 0.5 %
Total	<u>837714</u> 59.6	<u>474356</u> 33.7	<u>9370</u> 6.7	<u>1405840</u> 100 %
Source: A.G. Babaev, Problems of Arid Land Development, 1996, Moscow University Press. P.176.				

Annex 3C. Country Breakdown of Land Resources in Aral Sea Basin by Main Uses

Table: Land resources in the Aral Sea basin (in 000 ha)				
Country	Total	Cultivable area ^a	Cultivated area	Actual irrigated area
Kazakhstan*	34440	23872	1659	786
Kyrgyz Republic*	12490	1570	595	422
Tajikistan	14310	1571	874	719
Turkmenistan	48810	7013	1805	1735
Uzbekistan	44884	25448	5208	4233
The Aral Sea basin	154934	59474	10146	7895

^a. Potentially arable area, not yet under cultivation.

Source: Based on FAO data, 1997; Source: Uzbekistan: Country Situation Paper.

Tentative Outline of an Umbrella Central Asia/ GEF/ SPA Regional Partnership Program on Land Degradation in Central Asia

Introduction

A new window of opportunity has opened with the amendment to the GEF Instrument “to designate land degradation, primarily desertification and deforestation, as a focal area, as a means of enhancing GEF support for the successful implementation of the UN Convention to Combat Desertification.”

In this context, GEF draft OP-15 on Land Management states that “GEF assistance would focus on funding the agreed incremental costs of accelerating country-driven actions on sustainable land management to preserve ecosystem stability, functions, and services; reduce carbon dioxide emission and improve carbon sequestration; or stabilize sediment storage and release in waterbodies”. GEF assistance would cover three inter-related types of interventions – capacity building, on-the-ground investments, and targeted research – at the community, national, and/or transboundary levels.

Draft OP-15 also emphasizes that the environmental conventions need to develop joint work programs to address land degradation and deforestation to achieve multiple global benefits, including poverty alleviation; and preservation of ecosystem stability, functions, and services such as soil and watershed protection, carbon uptake and storage, water purification, climate regulation; and nutrient retention

GEF requires cofinancing from participating national governments and/or other donor agencies

First Step. The first step would be to prepare a PDF-B Application for development of the proposed “Central Asia/GEF Partnership Program on Land Degradation. The main parameters for developing this proposal may be as follows:

- (i) **Objectives:** The objective of the proposed Partnership Program is to combat land degradation in the arid ecosystems in the Central Asian Republics (CARS). This will be done through selective support for the CCD-NAP in synergy with other programs and projects that address land degradation in the CARS. The Central Asia/GEF/ SPA Partnership will formulate strategies and implement supporting interventions, including pilot projects and programs to reverse the trend of ecological deterioration and promote sustainable natural resources management as an integral part of national development and poverty reduction strategies and mutually agreed regional frameworks to address transboundary land degradation concerns. The Partnership will strengthen synergies with the Biodiversity Convention and the Framework Convention on Climate Change. The Partnership will closely collaborate with GM/UNCCD Secretariat to mobilize resources from other development partners for achieving the objectives of sustainable development and use of productive land and water resources in the region.
- (ii) **Focal Area and OP:** Land degradation; draft OP 15 on land management
- (iii) **Executing Agency:** To be determined
Focal Agencies in Central Asia: Respective CCD Focal Institutions.
- (iv) **Areas of Program focus:**
 - (a) reversing productivity decline in agriculture;
 - (b) enhancing efficiency of water use;
 - (c) sustainable management of pasture & fodder resources.
- (v) **Tentative Financing:** GEF: PDF-B: \$ 450 000
Others: (to be determined)
- (vi) Funding of PDF-B Application preparation: Sources to be determined