



Kazakhstan: Issues and Approaches to Combat Desertification

Discussion Draft

June 2003

Shiv Saigal, Consultant
TA 5941-REG: Combating Desertification in Asia

The views expressed in this report are those of the author and do not necessarily reflect the views and policies of the Asian Development Bank, or its Board of Governors or the governments they represent.

The Asian Development Bank does not guarantee the accuracy of the data included in this report and accepts no responsibility for any consequences of their use.

Use of the term "country" does not imply any judgment by the authors or the Asian Development Bank as to the legal or other status of any territorial entity.



CURRENCY EQUIVALENTS

US\$ 1 = Tenge 150 (April 2002)

ABBREVIATIONS

ADB	–	Asian Development Bank
CAMIN	–	Central Asian Mountain Information Network
CARs	–	Central Asian Republics
DMC	–	Developing Member Country of the Asian Development Bank
ESCAP	–	Economic and Social Commission for Asia and the Pacific
EU	–	European Union
GDP	–	Gross Domestic Product
GEF	–	Global Environment Facility
GM	–	Global Mechanism of the UNCCD
GWP	–	Global Water Partnership
ICAS	–	Interstate Council for the Aral Sea (merged into IFAS)
ICIMOD	–	International Center for Integrated Mountain Development
ICSD	–	Interstate Commission for Sustainable Development
ICWC	–	Interstate Commission for Water Coordination
IFAS	–	International Fund for Saving the Aral Sea
KAZ	–	Kazakhstan
KYR	–	Kyrgyz Republic
MEAs	–	multilateral environmental agreements
MOU	–	memorandum of understanding
NAP	–	National Action Program under UNCCD
NFP	–	National Focal Point
NEAP	–	National Environmental Action Plan
NGO	–	non-governmental organization
ODS	–	ozone-depleting substances
PIP	–	Public Investment Plan
PRC	–	People's Republic of China
PREGA	–	Promotion of Renewable Energy, Energy Efficiency and Greenhouse Gas Abatement Projects, an ADB RETA
POP	–	persistent organic pollutant
PPTA	–	Project Preparation Technical Assistance
RAP	–	Regional Action Program under UNCCD
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
SRAP	–	Sub-regional Action Program under UNCCD
TA	–	Technical Assistance
TACIS	–	Technical Assistance for the Commonwealth of Independent States
TAJ	–	Tajikistan

TRK	–	Turkmenistan
UNCCD	–	UN Convention to Combat Desertification and Drought
UNDP	–	United Nations Development Program
UNEP	–	United Nations Environment Program
USAID	–	United States Agency for International Development
UZB	–	Uzbekistan
WB	–	World Bank

COMBATING DESERTIFICATION IN CENTRAL ASIA

KAZAKHSTAN: ISSUES AND APPROACHES TO COMBAT DESERTIFICATION (IACD-KZ)

Table of Contents

	Page
Map	i
Abbreviations	ii
Executive Summary	v
Introduction	1
I. The Macroeconomic and Poverty Context	1
A. General	1
B. Economy and reforms	1
C. Poverty	2
II. Land Degradation & Desertification Situation	4
A. Main areas affected by degradation	4
B. Types of land degradation and underlying causes	5
C. The economic costs of land degradation	7
III. Implementation of UNCCD	8
A. The Nation Action Programme (NAP)	8
B. The Focal Agency & Institutional Framework	11
C. Strengthening NAP process and participatory approaches	13
IV. Policy Framework	14
A. Macro Policy Agenda	14
B. Poverty Reduction Strategy	15
C. Legal Framework	16
D. Natural Resources Management and Environmental Policies	17
E. Agricultural Policies	18
F. Water Conservation Policies	21
G. Evolving a cohesive strategic framework to combat land degradation	22
V. Priorities and Programs to Combat Land Degradation	23
A. Priorities of the Government to combat land degradation	24
B. Assistance to Kazakhstan from external donor agencies	27
C. Support for sub-regional/ regional programs to combat land degradation	31
VI. Issues & Opportunities in Implementing UNCCD in Kazakhstan	33
A. Obligations to support UNCCD implementation under the Convention	33
B. Improving the understanding of the root causes of land degradation	35
C. Institutional factors constraining implementation of NAP	36
D. The policy and legislation related constraints	37
E. Constraints to effective program development and implementation	38
F. The possibilities of greater GEF involvement in land degradation	40
G. Forging strategic partnership among donors and domestic stakeholders	41
Annexes	
1 Economic, Social and Environmental Indicators	
2 Poverty Indicators	
3 NAP-2002 – Action Plan	
4 Agricultural Sector – Tables	
5 GEF Project Portfolio in Kazakhstan	
6 Bibliography	

COMBATING DESERTIFICATION IN CENTRAL ASIA

KAZAKHSTAN: ISSUES AND APPROACHES TO COMBAT DESERTIFICATION (IACD-KZ)

EXECUTIVE SUMMARY

1. The ADB RETA 5941, cofinanced by the Asian Development Bank (ADB) and the Global Mechanism (GM), aims to provide technical assistance to the Central Asian Republics (CARs) to facilitate the implementation of the National Action Programs (NAPs) to combat desertification. The outcomes and activities of the RETA would serve to enhance the operations of a growing strategic partnership of donors interested in working together with the CARs to strengthen the implementation of the UNCCD in Central Asia.

2. The IACD takes into account the country situation paper (CSP) prepared by the domestic consultant for Kazakhstan, Ms. Kuralay Karibayeva, and a large number of other background documents. The report focuses on (i) macroeconomic & poverty context, (ii) land degradation/desertification, (iii) the implementation of the Convention to Combat Desertification (CCD), (iv) the policy framework, (v) priorities and programs to combat land degradation, and (vi) issues and opportunities in implementing UNCCD in Kazakhstan.

3. **Macroeconomic & poverty context.** Kazakhstan has undertaken a number of reforms towards macroeconomic stabilization and economic reforms since achieving its independence in 1991: price liberalization, a reduction in trade distortions, privatization of small- and medium-scale enterprises, and the introduction of a new tax code and bankruptcy law. Since the second half of 1999, Kazakhstan's economy has performed vigorously due to high oil prices and robust regional demand for Kazakhstan's exports. Gross domestic product ('GDP) grew by 9.6 percent in 2000 and 13 percent in 2001. GDP is expected to grow at 9.5 percent in 2002, with inflation at 6.5% percent. However, despite the prospects for oil-fueled growth in the future, Kazakhstan faces two main challenges: (a) avoiding the volatility inherent in commodity-led growth, through careful management of oil revenues and promoting growth in non-extractive sectors; and (b) ensuring that growth is widely shared, thereby improving living standards for the majority of the population and reducing poverty.

4. Poverty remains a major challenge, as the proportion is still high (30 percent) compared with 25 percent in 1992. Poverty is more pervasive in rural than urban areas. Uneven growth, rising income inequalities and growing unemployment are other major problems facing the economy. The four poorest oblasts¹ recorded the lowest GDP growth and house more than half of the country's poor population. Other troublesome aspects of the poverty situation are poor access to social services and a lack of safety nets for the vulnerable sections of society. Environmental problems exacerbate the poverty situation. Poverty incidence ranges between 45 and 87 percent in environmentally unfavorable areas. The major factors are water and air pollution and desertification.

5. The Government has undertaken to develop a more comprehensive mid-term program on fighting poverty for 2003-2007. The Poverty Reduction Strategy and Program (PRSP) is being developed with the support of ADB, the World Bank and the UNDP. It is important that the CCD- National Focal Point be proactive in ensuring that the PRSP and the macroeconomic and sectoral policy reforms clearly reflect the land degradation concerns.

¹ The four oblasts are: Almaty, Jambyl, Kyzylorda, and South Kazakhstan.

6. **Land degradation/ desertification.** The total area of degraded lands in the Republic is estimated to comprise 66% of its territory. The main zones of ecological stress and land degradation are in the Aral and Caspian regions and the abandoned marginal cereal growing areas in the northern region of the country development. The Aral Sea was once the world's fourth largest inland water body but has in recent decades shrunk to less than one third of its former size. The rising level of the Caspian Sea is causing the flooding of coastal areas, including active oil production areas, populated areas, agricultural land, and pastures in Western Kazakhstan. Radioactive pollution of soils at the former nuclear *test* site at Semipalatinsk poses a particular danger. Desertification is caused mainly by anthropogenic factors, such as extensive development of irrigation networks, excessive use of water for cotton production, inadequate drainage, and degradation of the ecosystem. The desertification of a large territory has been accompanied by pollution of soils, ground and subsurface waters, and a decline in the entire region's biological potential. Deficiency of water is one of the main causes of a critical ecological situation and of social tension in Kazakhstan. Finally, droughts have become more common than in previous times, now accounting for between 30 and 50 percent of years in the southern parts of the steppe zone. *The main areas to be addressed in controlling desertification are: preventing the spread of salinization and water erosion in the Aral sea basin; dryland management targeting the abandoned marginal cereal growing areas in the northern region of the country (the subject of a \$12 million World Bank/Global Mechanism/Global Environment Facility initiative); and controlling flooding and pollution in the Caspian sea basin.*

7. The main economic consequences of desertification/land degradation are reduction in yield and crop production, decrease in cattle and camel stock and animal-raising productivity, decrease in export capacity of agriculture, stagnation of food and light industry development, and sharp decrease in tax funds from agricultural and processing sectors. Total annual economic loss due to desertification in Kazakhstan is estimated at 93 billion tenge (US\$ 6.2 billion) amounting to approximately x percent of GDP². Land degradation impacts particularly the poor households. According to one estimate, the percentage of people with income less than a living wage has grown from 34.6% in 1996 to 43.4% in 1998.

8. **Implementation of the CCD.** The National Action Program (NAP) to combat desertification is the main instrument to implement the Convention. The Government of the Republic of Kazakhstan adopted the NAP in 1997, but due to a number of reasons the CCD implementation has been slow. The 1997 NAP incorporates a number of strategic directions, but was weak in programmatic content and linkages with the national development strategy and Kazakhstan's long term policy goals. A new NAP has been drafted (NAP-2002), which is more operationally oriented and places emphasis on better coordination and cross-sectoral integration. It also stresses active participation of non-governmental organizations (NGOs) and other elements of civil society in the implementation process. It includes an Action Plan for the implementation of the NAP, which lists a series of activities to be implemented during the period of 2002 to –2011 (see Annex 3). However, the draft NAP-2002 is still under consideration of the Government.

9. The Focal Agency for the implementation of the CCD-NAP in Kazakhstan is *the Ministry of Environmental Protection*. The draft NAP -2002 proposes institutional restructuring – establishment of an Interdepartmental Commission to Combat Desertification (IDCCD), a combined coordinating mechanism for the three Rio Conventions, a Center to Combat Desertification to function as an office of interdepartmental and interdisciplinary technical management and coordination, and Oblast Committees to combat desertification, which will also involve NGOs and CBOs. An early decision on these proposals would strengthen the institutional framework for the implementation of the Convention. The proposed creation of a National Commission on Sustainable Development to coordinate all such activities is

² Kazakhstan NAP.

another important institutional innovation that must be reconciled with the NAP implementation approach.

10. The effective implementation of the 1997 NAP-CCD was constrained by a number of factors, which may also impede the performance of the proposed new draft NAP-2002. One of these constraints was the geographic isolation of the CCD- Focal Agency in Kokshetau). With the relocation of the Ministry of Environmental Protection in Astana, the national capital, coordination with other concerned government agencies should improve. Other constraints to CCD implementation include weak capacity of the concerned government agencies to identify & prepare specific projects and programs to claim domestic budgetary allocations, much less to attract external donor assistance. The situation has been further complicated by stringent budgets, which has made it difficult to access budgetary resources even for the implementation of small pilot projects that were initiated under the CCD-NAP. Due to lack of funding, there is practically no research carried out in such important areas as: natural feeds, vegetation composition and structure, and yield changes as the result of their use And there is no system of comprehensive local monitoring of the development of negative processes in soils.

11. Integration of NAP into the planning framework: It appears that NAP is being treated as a “stand-alone” document and is not integrated into macroeconomic development and poverty reduction strategies. The issues of combating desertification and land degradation have not been covered in the national indicative development plans and budgetary financial programs. It is expected that this problem will be solved together with the increase of the NAP status, once the new NAP-2002 receives Governmental approval. However, mainstreaming of the UNCCD and NAP remains an unfinished agenda. There is also need to take practical measures to extend the outreach of the NAP process to the local levels and promote participatory approaches for the active involvement of local populations in community-based initiatives to combat land degradation.

The Policy Framework

12. Macroeconomic policies have been reasonably effective in achieving the key goals of macroeconomic stabilization and economic growth based on a relatively open market economy with a high level of foreign investment and internal savings. However, the country faces a two-fold challenge: to manage efficiently the large increase in income related to rapid oil sector development while achieving internal and external balance; and to persist with structural reforms so as to lay the foundation for sustained economic growth and employment creation. The main challenges in this context are: ensuring good governance; promoting private sector driven and broad-based growth; making poverty reduction more inclusive to narrow growing income disparities; and combating severe problems of environmental deterioration and land degradation. *However, the interface between the policy reform agenda and environmental and land degradation issues is rather weak – a deficiency which needs to be overcome through mainstreaming of these issues into the policy making process.*

13. The poverty reduction strategy. The PRSP, still in the process of being fully articulated³, has set a five-pronged basic directions framework: (i) measures that will improve program efficiency; (ii) measures to improve poverty level indicators; (iii) measures to reduce poverty of the vulnerable and disabled groups; (iv) measures that will address income-based and non-income poverty; and (v) measures that will improve the institutions of the state, its relations with NGOs and trade unions, and the private sector. *The strategy needs to reflect more directly the environmental and land degradation concerns. This would require, however, that the NFP/CCD plays a proactive role in the policy delineation process.*

³ ADB is a lead agency in assisting the Government in developing a comprehensive strategy for poverty reduction and growth, working closely with the World Bank and the IMF.

14. The legal framework. The fairly extensive current environmental legislation lacks clarity about: (i) the competence of government bodies in management, use, and conservation of a natural objects; (ii) the rights for natural resource use, types of use, terms, nature use licensing, duration of use, natural resource monitoring procedure, its cadastre, structure, and the system of payments; (iii) measures of legal responsibility for the breach of these laws; and (iv) international cooperation in conservation and use of natural resources. Strict and transparent enforcement of compliance is a major constraint throughout Central Asia. A new Environment Act is currently before the relevant committee in Parliament that would address some of these deficiencies. *The NAP emphasizes the need for rationalizing and improving environmental legislation, particularly with a view to strengthening the provisions with respect to combating desertification.*

15. Natural resources management and environmental policies. The Inter-Ministerial statement for the WSSD (August 2002) has suggested that the following key environmental problems face Kazakhstan: (i) deficit of water resources; (ii) environmental pollution with industrial and municipal solid waste; (iii) degradation of pastures and arable lands; (iv) air pollution of urban areas; (v) environmental pollution in oil field areas; (vi) shortage of forests and especially protected natural territories; and (vii) wastewater pollution of water bodies. *Water quantity* issues are of paramount concern as misuse and overuse of water for irrigation and excessive diversions of major rivers has resulted in shortages of surface waters of suitable quality for agricultural and other uses. There is a very large amount of information on environment issues, but much of it is irrelevant for useful policy development or even sound assessment of the environmental conditions⁴.

16. Agricultural sector policies on land reforms are still grappling with issues of indebtedness of privatized farms, and the handling of bankruptcies and restructuring of farms into medium-sized farm units. This has led to a decline in production and investment. Policies to revive agriculture place high reliance on direct state subsidies rather than on sustainable institutions. Lack of working capital, high state taxes, and low output prices are perceived by the farmers as major disincentives. The Government has taken a number of steps to improve delivery of services, inputs and credit to revitalize production of the private sector farm units, but the impacts are only being slowly realized.

17. Government strategy for desertification control includes emphasis on rehabilitation of the abandoned drylands in the northern areas of the country with alternate sustainable land-use systems. In Kazakhstan, there are an estimated 59 million ha of degraded rangelands of which 10 million ha have been ploughed and abandoned. With reseeded and improved management of these areas, it should be possible to substantially increase animal and/or animal product off-take (meat, milk, milk products, hides and wool etc.) and directly benefit about 0.5 million people (120,000 farming families) in the dryland areas of Kazakhstan. In this context, GOK, with support from the World Bank, GM and IFAD have prepared a pilot project for funding from GEF, which is now at the appraisal stage. The project, located in marginal cereal growing areas in the Shetsky Rayon of Karaganda Oblast, has considerable potential for replicability in similar agro-climatic zones in Kazakhstan and Central Asia⁵.

18. Water conservation policies have not yet managed to find ways to check excessive and wasteful use of water. The shortage of water defines the limits of ecologically admissible development for industry and agriculture in Kazakhstan. The policy issues involved in the water sector are complex and varied requiring action at the level of: (a) tackling transboundary issues⁶ through regional cooperation; (b)

⁴ ADB TA 3350: Kazakhstan Country Environmental Analysis, Scott Wilson Kirkpatrick & Co. Ltd., September 2002.

⁵ World Bank, Kazakhstan: Drylands Management Project (GEF), Project Concept Document, March 11, 2002 (Project ID # P071525).

⁶ These issues include the problems of water distribution between countries and the cross border transfer of pollutants in air and water, which have become acute for the Central-Asian region.

rehabilitation, up-gradation and maintenance of storage and distribution infrastructure; (c) establishing an incentive framework that would penalize wasteful use of water; (d) active participation of water users through mechanisms such as water users associations, which go beyond the objective of cost-sharing; and (e) tackling issues of water quality control and monitoring.

Priorities and Programs to Combat Land Degradation

19. The Government's *Concept of Rational Use and Protection of Land Resources of the Republic of Kazakhstan during 1994-1995 and the Period till 2010* to be financed through the national and local budgets and state and private land users, lists the following program priority areas:

- (i) conservation of agricultural lands and improvement of lands of other categories;
- (ii) restoration of forests through forestation, creation of protection plantings on fields, pastures, waste lands in environmentally unfavorable regions;
- (iii) increase of areas under lands of nature protection, and promoting their use as health, recreation resorts – i.e. through development of eco-tourism;
- (iv) improvement of 3 million ha. of fallow lands to be transformed into improved pastures;
- (v) zoning and inventory of land resources as the basis for development of measures on combating water and wind erosion (37.8 million ha.), melioration, improvement of feed fields, introduction of soil protection technologies and reconstruction of irrigation systems; and
- (vi) organization of the use of farm lands, monitoring and control over land use and protection, and substantial (2.5 times) increase in the volume of field soil and geobotanical research and other related measures.

20. *However, activities or projects in pursuance of the above priorities are held up due to lack of budgetary support. Notwithstanding the Government's stringent fiscal and budgetary policies, it is emphasized that the Government has undertaken certain obligations under the articles of the CCD to provide financial and other support for its implementation. It is therefore suggested that appropriate budgetary allocations be released at least for activities, projects or programs which have already been launched by the Ministry of Environmental Protection or other agencies at national, oblast or local levels.*

21. Many of the activities to implement the NAP involve research, training or pilot projects. These are appropriate for external support on the basis of technical assistance and grant financing. Of course, lack of external technical assistance support is not the main problem for Kazakhstan with its comfortable resource situation. The problem lies in insufficient awareness at the political level of the true costs to the country from an increasing desertification process and consequences for the country's economic growth and poverty reduction. As result, a balanced state program is lacking which can target these problems in a comprehensive way. Implementation of such a program would require technical and financial support from the international institutions. However, it is equally crucial that the program should be properly coordinated to be successful.

22. There are a number of high priority areas which would benefit greatly from investment projects. However, capacity to develop projects which directly address land degradation issues is limited in concerned agencies. Besides, such projects need cross-sectoral approaches to tackling major problem areas of land and water degradation—salinization, deforestation, overgrazing and declining soil fertility—

through well designed project interventions with particular focus on dryland management.⁷ This calls for closer inter-agency collaboration, which would need to be promoted.

23. External donor agencies, while active in assisting the Government both through technical assistance and investment projects, have not yet factored into their programming a more direct and conscious support to UNCCD related activities (see Box 5 for current involvement by development partners by main sectors/ sub-sectors). Thus, the NAP process needs to enhance its ability to access assistance from donor agencies. *There is need to look beyond the conventional projects to carve out a programmatic approach to addressing land degradation issues in conjunction with the broader goals of rural development. There are also opportunities in the area of carbon sequestration and trading which can be worked into a joint collaborative program of UNCCD and UNFCCC.⁸ Such an investment platform could become the catalyst to mobilize resources and technical support from the interested donor agencies at the level of policy, investment programs and technical assistance/advisory support. This approach could complement the NAP and serve as a rolling action plan to implement the CCD/NAP to facilitate a focused approach to enlist the support of domestic stakeholders, donors and NGOs.*

24. A new window of opportunity for enhanced financing of CCD/NAP initiatives has been opened with the amendment to the 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.”

25. Another opportunity to accelerate implementation of UNCCD/NAP is offered by the GM and ADB initiative in forging strategic partnerships. The Strategic Partnership Agreement (SPA) between the GM, ADB, Germany and Canada, with possible joining of Switzerland, IFAD and ICARDA would offer new opportunities to enhance the implementation NAPs and SRAPs and to promote regional cooperation among CARs. Vigorous follow up of the outcomes of current RETA would provide the concrete instruments to forge strategic partnerships among donors and domestic stakeholders and also to provide a coherent platform for the mobilization of resources for UNCCD in Kazakhstan and elsewhere in Central Asia.

Main Conclusions/Recommendations

26. Part VI of the main report pulls together the main issues in implementing the CCD in Kazakhstan. Many of these issues have been briefly discussed in the preceding summary. The main conclusions/recommendations from that section are given below:

1. *It is observed that implementation of a number of programs initiated in Kazakhstan within its NAP framework is held up for want of financial resources. This situation needs to be reviewed at senior levels by the Government to make necessary financing from domestic resources available for the priority programs which have already been approved for implementation. As for the development partners, a number of multilateral and bilateral aid programs already support activities which are indirectly supportive of*

⁷ The main priority areas for TA and investment support, both at national and regional levels, identified by the UNCCD – National Focal Points from CARs are: (i) monitoring, assessment of desertification processes and environmental impact assessment; (ii) improving the use of water in agriculture; (iii) combating erosion, salinization and swamp formation; (iv) agro forestry and forests resources management on the plains and in the mountains; (v) watershed management; (vi) rangeland management; and (vii) nature and biodiversity conservation; ecotourism development.

⁸ The Unit Policy Studies of the Energy research Centre of the Netherlands ECN has published a new report which sheds light on the project characteristics of the first traceable 100 million tonnes of CO₂ equivalents intended for contracting under the project-based mechanisms of the Kyoto Protocol.

UNCCD objectives, but direct and conscious support to UNCCD implementation through NAP framework is yet to materialize.

2. *In an environment of funding constraints, there is a clear need to establish priorities in the related current scientific and research agenda being pursued in Kazakhstan. The key priority areas to improve the understanding of the root causes of land degradation and desertification in the country and how to address them are:*
 - *To complete the ongoing work of ecological and economic zoning.*
 - *To design a comprehensive system of monitoring of desertification/land degradation processes.*
 - *To identify community-based local area development (LADP) initiatives through a participatory action research approach.*
 - *To initiate research directed at identifying points of integration among economic, social and environmental sectors in the context of the goal of sustainable development*
 - *Considering the rich spectrum of problem areas in the overlapping fields of environment, ecology, desertification, land degradation, biodiversity, and climate, to constitute a multi-disciplinary task force to take stock of what research is being carried out on issues of relevance to desertification and land degradation and where. Based on this, priorities need to be established with a higher weight given to applied research linked to the objectives and approach of the UNCCD. This exercise at priority setting would be a good candidate for TA support by interested donor agencies.*
3. *Institutional constraints to implementation of UNCCD comprise: (i) weak capacity to identify, design, implement or manage NAP and related projects and programs to combat land degradation; and (ii) problems of institutional structures, interface, coordination and outreach. There is need for well targeted support for capacity development and skill up-gradation. On the first count, there is a case for a thorough and systemic “needs assessment” exercise to identify capacity and skill gaps in the institutional units involved in UNCCD/NAP activities or processes from the standpoint of accelerating UNCCD implementation. On the second count, the proposals contained in the draft NAP-2002 for strengthening the institutional framework for UNCCD coordination and outreach merit serious consideration of the Government (also see conclusion no. 5 below).*
4. *The main focus of macroeconomic policy is on structural reform issues, with linkage to poverty reduction through stimulating the process of broad-based economic growth. Poverty reduction objectives are also supported through sectoral policies for revival of agriculture, employment generation, programs for social sector development and social safety-net support. The policy making organs in the Government as well as the development partners need to be sensitized to mainstream CCD objectives and response to land degradation concerns explicitly into the policies and programs of key sectors. Part of the reason for land degradation concerns being less evident in the policy framework is the “stand alone” nature of the NAP process. Even Kazakhstan’s draft NAP-2002 is weak in policy content. This raises the issue of mainstreaming to a level of urgency. Action is needed to address this concern through issues of land degradation being considered in the broader, cross-sectoral economic development context. Some of the key action areas to address issues of mainstreaming and an integrated cross-cutting approach to the implementation of UNCCD are discussed in Section E.*

5. *The challenge of effective implementation of the UNCCD/NAP is to undertake certain concrete actions to overcome the constraints affecting the implementation process. These actions would be:*
- (a) *The NAP should not be treated as a 'stand alone' document, but mainstreamed into the national policy making process. For this purpose, the NAP's policy and programmatic content should be strengthened. The programs should cover not just the Focal Institution's priorities but be more inclusive to include programs and projects of other agencies which address land degradation issues and concerns. Such programs should have Government ownership and some form of financial commitment. Identification of such programs, particularly of pilot projects, should be the outcome of a participatory process involving local communities and community-based initiatives.*
 - (b) *There appears to be an urgent need to strengthen capacity in the concerned agencies to prepare project concepts and develop them into more detailed project documents. Also the Focal Institution and other concerned agencies have limited translation facilities from Russian into English to develop a program portfolio for submission to donor agencies for their consideration.*
 - (c) *Administrative mechanisms should be evolved for integration of NAP into the national development and poverty reduction strategies. Appropriate administrative regulations should be adopted for integrating NAP/CD into the national planning, budgetary and PIP processes.*
 - (d) *The areas of convergence and common ground between the NAP/CD and the action plans of other Multilateral Environmental Agreements (especially the Rio Conventions) and the National Environmental Action Plan should be explored.*
 - (e) *An investment platform of priority projects and programs to combat desertification/land degradation would be useful to mobilize resources for CCD implementation. This compilation of high priority projects for financing would complement the NAP and serve as a rolling action plan to facilitate a focused approach to catalyze support of the domestic stakeholders, NGOs, and donors.*
 - (f) *A new window of opportunity for enhanced NAP implementation financing has opened with the designation of "land degradation, primarily desertification and deforestation", as a focal area to enhance GEF support for the successful implementation of the UN Convention to Combat Desertification. To avail of these resources, the Government would need to identify suitable projects which meet the GEF selection criteria.*

COMBATING DESERTIFICATION IN CENTRAL ASIA

KAZAKHSTAN: ISSUES AND APPROACHES TO COMBAT DESERTIFICATION (IACD-KZ)

Introduction

1. The ADB RETA 5941, cofinanced by the Asian Development Bank (ADB) and the Global Mechanism (GM), aims to provide technical assistance to the Central Asian Republics (CARs) to facilitate the implementation of the National Action Programs (NAPs) to combat desertification. The outcomes and activities of the RETA would serve to enhance the operations of a growing strategic partnership of donors interested in working together with the CARs to strengthen the implementation of the UNCCD in Central Asia.

I. The Macroeconomic and Poverty Context

A. General

2. Kazakhstan, the largest of the Central Asian Republics, extends almost 2,000 km from the Caspian Sea in the west to the border of China in the east and nearly 1,300 km from central Siberia in the north to eastern Uzbekistan in the south. The Republic borders Turkmenistan, Uzbekistan, and the Kyrgyz Republic in the south, Russia in the north, China in the east, and the Caspian Sea in the west. The country has an area of 2.72 million km² and a population of 14.8 million, with a low population density of 6.2 persons per km².

3. The wide variety of geological, soil and vegetation conditions, and the inner continental location of Kazakhstan's land mass produce an extreme continental climate, characterized by frequent atmospheric and soil droughts, high summer temperatures, low precipitation, scarcity of water resources. Most of Kazakhstan's territory is deserts, semi-deserts and steppes. The picturesque mountain areas of southeast Kazakhstan are under increasing pressure from the development of the tourism and recreation industry. Within the limits of Kazakhstan, the rivers Ural and Irtysh are the most polluted because within their basins various industries have been developed for more than two centuries.

B. Economy and reforms

4. Since independence in 1991, **Kazakhstan** has undertaken a number of measures towards macroeconomic stabilization and economic reforms: price and trade liberalization, privatization of small- and medium-scale enterprises, and the introduction of a new tax code and bankruptcy law. It has been able to achieve significant progress in restoring macroeconomic stabilization and bringing inflation under check. However, institutional reforms have lagged behind macroeconomic stabilization and policy reforms. The institutions and legal framework necessary for a market economy to function are not fully developed; governance and accountability issues in the public sector hinder the efficient allocation of public resources; and corruption and a lack of transparency raise the cost of doing business, constraining private sector development. Implicit subsidies to enterprises as well as wage and pension arrears create an environment of "unpaid bills" that slows the development of market economy.¹

¹ The World Bank: *Country Assistance Strategy for the Republic of Kazakhstan*, January 16, 2001, Report No.: 21607 KZ and World Bank Kazakhstan Country Brief, September 2002.

5. Since the second half of 1999, Kazakhstan's economy has performed vigorously due to high oil prices and robust regional demand for Kazakhstan's exports. Gross domestic product ('GDP) grew by 9.6 percent in 2000 and 13 percent in 2001. GDP is expected to grow at 9.5 percent in 2002, with inflation at 6.5% percent. The fiscal situation has improved, helped by higher revenues from exports of oil and metals, and the Government's prudent fiscal policy. For the first time since independence in 1991, Kazakhstan achieved a budget surplus equivalent to 0.1 percent of GDP in 2000. The balance of payments situation improved significantly, with the current account surplus equivalent to 5.9 percent of GOP in 2000. The surplus resulted from a doubling of exports (mainly oil and metals) as a result of higher world prices, an increased oil export quota through the Russian Federation pipelines, and the positive effects of the currency devaluation in 1999. GDP growth is driven by strong growth in the petroleum sector. With proven reserves of 8 billion barrels, Kazakhstan's oil production is expected to increase from 35 million tons in 2001 to 64 million tons in 2004. Oil revenues are accumulated in the National Fund, established in 2001. Reserves of the National Bank reached US\$3.1 billion by end-2002, while assets of the National Fund now exceed US\$2 billion. The overall policy environment facing Kazakhstan was undergoing significant change because of very high world oil prices and, over the medium term, sharply rising oil export volumes.² External public debt decreased from \$4.1 billion (24.1 percent of GDP) at the end of 1999 to \$4.0 billion (21.8 percent of GDP) at the end of 2000.³

6. *However, despite the prospects for oil-fueled growth in the future, Kazakhstan faces two main challenges: (a) avoiding the volatility inherent in commodity-led growth, through careful management of oil revenues and promoting growth in non-extractive sectors; and (b) ensuring that growth is widely shared, thereby improving living standards for the majority of the population and reducing poverty.*

C. Poverty

7. While comprehensive poverty analyses are lacking,⁴ official statistics show that the proportion of the population living below the poverty line declined from 34.5 percent in 1999 to 31.8 percent in 2000. However, poverty remains a major challenge as the proportion is still high compared with 25 percent in 1992. Poverty is more pervasive in rural than urban areas. Income and non-income poverty indicators showed a downward trend in the past 3 years (Annex 2-Table 1). By the third quarter of 2001, 29.7 percent of the country's population was living below the subsistence minimum (a measure of income poverty), a decline of 7 percent from the previous year.⁵ Furthermore, the overall Human Development Index and Human Poverty Index, composite indices of well being, recorded improvements through the years (Annex 2-Table 2). Literacy rates remain high, comparable to developed economies, and health indicators as shown by the different mortality rate indices, exhibited declining trends. The ADB is the lead agency, working in close collaboration with the World Bank, to assist the Government in the preparation of a national poverty reduction strategy.⁶

8. The ongoing poverty analysis work indicates the following main characteristics of the poverty situation in Kazakhstan:

² IMF Mission to Kazakhstan February 20 to March 9, 2003, Press Release No. 03/33.

³ The Asian Development Bank, *Kazakhstan: Country Strategy And Program Update (2002-2004)*.

⁴ The latest poverty study was undertaken by the World Bank in 1998 using 1996 data. World Bank. *Kazakhstan Living Standards during the Transition* (Report No. 17520-KZ). 1998. Washington DC.

⁵ ADB, Internal Paper: *Poverty in Kazakhstan- Key Issues and Suggested Agenda for Action (provided to the consultant on informal basis through courtesy of KRM)*.

⁶ ADB has approved a technical assistance grant (TA-3550) for US\$ 830 000 in November 2000) to finance a poverty analysis and help the Government Develop a medium term poverty reduction program.

- **Unequal growth:** The benefits of growth were unevenly distributed, with the core poor (those living at subsistence level, the elderly, disabled and large families) largely bypassed by growth.⁷ The poor constitute 39% of the population in rural areas as compared with 24% in urban areas. This uneven growth is particularly illustrated in the case of Mangistau and Atyrau, two of the country's oblasts that registered in 2000 the highest regional GDP (RGDP) at the aggregate and per capita levels because of their oil and gas endowments, but more than half of their population was receiving lower than the subsistence minimum levels (Annex2-Table 3).
- **Poverty is oblast-specific:** The oblasts of Almaty, Jambyl, Kyzylorda, and South Kazakhstan recorded the lowest RDGP and house more than half of the country's poor population. The population of the 4 oblasts is dependent on their rural economy. Desertification has adversely affected the agriculture lands of South Kazakhstan and Jambyl. Environmental problems and restricted water supply exacerbate the poverty situation in Kyzylorda, which showed rising infant mortality rates, tuberculosis incidences, as well as infectious and parasitic illnesses.
- **Lack of access to basic social services:** Poverty is characterized by unequal access not only to productive but also to social services that are key to ensuring a balanced well being (Annex2-Table 4). The high literacy rates and improvements in health indicators mask the fundamental problem of unequal access to basic social services. About 19 percent of the 18 year olds and 13 percent of those belonging to the 20-24 years age bracket did not have secondary education; also, three-fourths of children who are out of school are from poor or disadvantaged families. Moreover, access to potable drinking water, heating (which is critical given the harsh winters), medical facilities and sanitation services has also been lopsided in its outreach to the poor and the vulnerable groups.
- **Weak empowerment:** Poverty is exacerbated by the absence of participatory structures and weak civil society organizations with not much say partners in deciding on activities that will improve the access of the poor to both productive and social services.
- **Environmental degradation:** Worsening environmental conditions are directly associated with increases in poverty. Poverty incidence ranges between 45 percent and 87 percent in environmentally unfavorable areas. The major factors are water and air pollution and desertification.

9. The main objective of ADB's assistance strategy for Kazakhstan is to reduce poverty by promoting sustainable economic growth, facilitating social development, and supporting good governance. It is however important to recognize that growth in itself is a necessary, but by no means sufficient condition for poverty reduction. The nature and source of growth are equally important so as to ensure that the benefits of growth are shared by the poorest among the poor across oblasts and sectors. Growth needs to be broad-based, employment- and income-generating and sensitive to environmental sustainability concerns.

⁷ The difference in income of the wealthiest and poorest residents increased from 4 (1996) to 11 times (1998): Kazakhstan Country Situation Paper (CSP).

II. Land Degradation & Desertification Situation

A. Main areas affected by degradation⁸

10. According to the statistics as of the 1st of January, 2000, the total area of available lands in Kazakhstan is 272,5 million ha, of which 222.5 mln/ha comprises agricultural lands.⁹ The total area of degraded lands in the Republic is 179,9 million ha. or 66% of its territory. Kazakhstan is divided into ten climatic zones, four of which are the dominant ones - the wooded steppe, the steppe, the semi-desert zone and desert zone. The *desert zone* covers most of southern and western regions of Kazakhstan. Beginning just north of 47^oN latitude it stretches in an unbroken strip from the Caspian Sea in the west to the foothills of the Tarbagatai Mountains in the east, covering approximately 44 percent of the country. Yearly total precipitation ranges from 100 to 200 mm. The *semi-desert zone* is a transition area between the steppe and the desert which stretches across the country from east to west roughly between 51^oN and 48^oN latitude, including virtually all of the depressions bordering the Caspian Sea, and covers about 17 percent of the Republic's territory. Yearly precipitation usually does not exceed 280 mm in regions bordering the steppe and declines to 150 mm in areas bordering the desert. Winter temperatures are relatively low (ranging from -12^o C in the west and - 20^o C in the east). Summers are hot and dry, with average air temperature in July from 23 to 25^o C in the west and from 18 to 22^o C in the east.

11. The main zones of ecological stress and land degradation are the Aral and Caspian Sea basins, and the regions of nuclear pollution, oil and gas exploration and industrial and agricultural development. The main causes of degradation in a nutshell are:

- location of the most part of Kazakhstan in the Aral-Caspian flow less extra-arid region, where processes of deflation and salt accumulation are widely developed;
- breach of hydrological system, disturbing the natural water balance, due to excessive regulation of flows of the main river arteries: Irtysh, Ili, Syrdaria, Shu, Ural, Talas and others;
- presence of regions of ecological crisis: the Aral basin, territories of Balkhash and former Semipalatinsk nuclear testing field; and
- technogenously polluted areas in the zone of intensive oil and gas exploration and intensive production in the Caspian region.

12. The Aral Sea, on the border of Kazakhstan and Uzbekistan, was once the world's fourth largest inland water but has in recent decades shrunk to less than one half its former size. The area around the Sea suffers from salinization and depletion of the soil, substantial amounts of wind borne salt and dust, and pollution by toxic chemicals. Irrational use of water resources from the river basins feeding the Sea, the Amu Darya and the Syr Darya, caused the Aral Sea's level to drop by approximately 17 m and increased the water's mineralization from 10 to 46 g/l. A total of 3.4 million ha of the former Sea bed, 1.8 million of which are in Kazakhstan, have dried and turned into desert of sand beds and salt flats. The average annual total of particulate matter carried by wind from the Kazakhstan portion of the Aral Coastal area is over 75 thousand tons per year. This is caused mainly by anthropogenic factors, such as extensive development of irrigation networks, excessive use of water for cotton production, inadequate drainage, and degradation of the ecosystem. The desertification of a large territory has been accompanied by

⁸ ADB, *Central Asian Environments in Transition*, July 1997; Country Situation Paper by the Domestic Consultant; and the Kazakhstan National Action Program to Combat Desertification, 2002 (draft).

⁹ This comprises 185.2 mln/ha of pastures, 21.9 mln/ha of arable lands, 10.3 mln/ha of fallow lands, 5.0 mln/ha of hayings

pollution of soils, ground and subsurface waters, and a decline in the entire region's biological potential. Deficiency of water is one of the main causes of a critical ecological situation and of social tension in Kazakhstan. According to the experts' estimates, in Kazakhstan, individual consumption should not be less than 5,000m³ of fresh water a year, but in most regions of Central Asia, including Kazakhstan, not more than 700-1000m³/year is available. The uneven distribution of water resources over the area of Kazakhstan significantly complicates the situation. The yearly availability of water resources from 70,000 m³/km² in the southeastern part of the country to 6,500 - 8000 m³/km² in central and northern Kazakhstan.¹⁰

13. The rising level of the Caspian Sea causes the flooding of coastal areas, including active oil production areas, populated areas, agricultural land, and pastures in Western Kazakhstan. Over the last decade, the level of water in the Caspian Sea has risen by 2.4 m. The zone which is subject to flooding and substrata flooding is home to 32 oil and gas fields with total reserves of 5 billion tons; seven fields have already been entirely flooded while 25 other fields are directly threatened by flooding, including the largest at Tengiz. The measured concentration of oil products in sea water along the northeastern coast has recently reached more than 30 times the maximum allowable concentration, which has contributed to periodic excessive death rates for sturgeon and migrating birds, including rare birds which are on the list of endangered species in Kazakhstan and the CIS. Drilling for oil in the fields along the northeastern coast of the Caspian Sea alone has caused up to 8.5 million m³ of salty substrata water with a chlorine and calcium composition to be discarded onto the surface.

14. Radioactive pollution of soils at the former nuclear *test* site at Semipalatinsk poses a particular danger. Nuclear weapons tests conducted here on a combined territory of about 2 million ha from 1949 to 1985 included a total of 459 explosions, of which 119 were above ground. The soil is highly polluted by radio nucleids, which have become the major source of radioactive elements in plants and agricultural products and, hence, into the food chain of animals and human beings. This has led to high rates of serious forms of genetic and somatic illnesses and cancer among the populations of Semipalatinsk, Pavlodar and East Kazakhstan *Oblasts*.

15. The conditions for potential ecological danger are also found in the chernozem region of Northern Kazakhstan, the country's breadbasket, due to the extensive, non-sustainable use of the relatively fragile soils for a grain monoculture, with resulting loss of humus, resistance to water-logging, and the intensification of water and wind erosion. During the period of extensive development of cultivation in this region (the period of the Virgin Lands Campaign from 1954 to 1960), 18 million ha of soil was brought into cultivation. The total area of the cultivated land in the chernozem region reached 25 million ha, dedicated primarily to summer wheat. Tillage methods used were not applicable to Kazakhstan's climate and the resulting loss of humus has exceeded a billion tons over the past forty years. Finally, droughts have become more common, now accounting for between 30 and 50 percent of years in the southern parts of the steppe zone.

B. Types of land degradation by underlying causes

16. According to the Kazakhstan National Action Program to combat desertification, 1997, the main types of degradation are described as follows:

- *Wind soil erosion (deflation)* has covered all plain landscapes including 20.5 million ha. of arable lands, and about 25 million of pastures with spot desertification on sands;

¹⁰ Kazakh CAMIN Working Group, *National Strategy and Action Plan for Sustainable Mountain Area Development of Kazakhstan*, ADB Project RETA #5978-REG "Regional Cooperation for Sustainable Mountain Development in Central Asia".

- *Water erosion* is observed on area of 19.2 million ha. melted snows and rains remove up to 60 million tons of soil, 11.9 million ha. of steppe black earth and brown soils are exposed to water erosion, of which 5.2 million ha. are severely degraded. Irrigation erosion affects some 1.8 million ha of irrigated lands.¹¹
- *Soil dehumification* is shown on area of 11.2 million ha. of virgin lands of the steppe zone. In the Northern Kazakhstan since 1960-ies soils generally lost 20-30% of humus as a result of natural erosion processes and irrational methods of soil use. In deserts, soil dehumification is connected with irrigation erosion (1.8 million ha.) and excessive grazing alongside with deflation processes;
- *Salinization of irrigated soils* is typical for hydromorphic soils and salt marshes. Saline soils affect 376,700 ha. (25%) of irrigated arable lands. 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;
- *Soil salinization in the process of drying-up of lakes* is observed during drying-up of swamp soils, causing deterioration of water and physical properties, formation of salt marshes;
- *Technogenous desertification* predominates in districts of industrial production, construction of transport and engineer infrastructures. Technogenously damaged lands are observed on area of 181,300 ha., including 87,600 ha. in the process of mining;
- Along *oil and gas pipelines* (21,000 km.) there are desertificated land strips; there is a risk of pollution of soils, vegetation, air during frequent emergency leakages;
- *High-voltage electricity transmission lines* (458,000 km.) create a corridor of degraded lands (up to 3 m wide) and present a source of electromagnetic pollution of environment);
- Negative impact on ecosystems and human beings of *space and military fields*, which create specific forms of technogenous desertification, revealed to various extents on area, constituting 6% of the territory of the country.
- The following table provides an overview of land degradation by the main types.

¹¹ The total area of irrigated lands is 2.3 mln/ha, 1.4 mln/ha of which are arable lands. A good part of irrigated lands appear to have been rendered out of operation due to degradation, siltation, or breakdown of irrigation infrastructure.

Table 1: Land degradation and types of erosion

(in million of hectares)

Type of erosion	Area of arable land affected	Area of pasture lands affected	Total area affected	% of total land area
1. Wind soil erosion of which (severely deserted)	20,5 (focal) 0,01	25,0 (focal) 1,59	45,5 1,6	25,3
2. Water erosion of which (severely deserted)	11,9 5,2	7,3 0,5	19,2 5,7	10,7
3. Lands affected both by wind and water erosion	0,001	0,199	0,2	0,07
Eroded agricultural lands	32,4	32,5	64,9	36,1
4. Salinization of agricultural lands out of them strongly affected	2,1 0,1	32,3 14,0	34,4 14,1	19,1
5. anthropogenic degradation and other types (including irrational nature use impact, natural unfixed sand dunes, alkali soil etc.)	-	-	80,6	44,8
Total area of degraded lands in Kazakhstan	34,5	64,8	179,9	66,0
Total territory	21,4 + 2,9	187,1	272,5	-

Note: Within the last years the area of the degraded lands has been reducing due to change of purpose for their usage. Lack of certain data on degradation degree of some agricultural lands is due to lack of financing for carrying out researches and monitoring land state.

17. The main characteristics of desertification processes at work in Kazakhstan¹² (as elsewhere in Central Asia) are:

- loss of vegetative cover due to irrational use of pastures;
- reduction of biological diversity, degradation of flora and fauna;
- exhaustion, salinization and pollution of water and drying up of its sources;
- intensification of drylands erosion while using them in high farming without taking into account peculiarities of top-soil;
- devastation of vegetative cover and top-soil due to road-building and industrialization, geological exploration, mining, settlement building and irrigative constructions;
- forest destruction;
- devastation of fragile top-soil due to motor transport;
- secondary salinization, alkali accumulation and flooding of irrigated lands;
- departure from traditional forms and methods of management of natural resources due to introduction of intensive and specialized agricultural production, such as mono-culture.

C. The economic costs of land degradation

18. The main economic consequences of desertification/land degradation are:

- reduction in yield and crop production,
- decrease in cattle stock and cattle-raising productivity;
- decrease in export capacity of agriculture;
- stagnation of food and light industry development;
- sharp decrease in tax funds from agricultural and processing sectors.

¹² Kazakhstan: National Action Program to Combat Desertification, 2002 (draft).

19. The 2002 draft NAPCD provides estimates¹³ of average annual economic losses from desertification as follows:

- 37500 tenge – from each hectare of irrigated lands affected by moderate degradation,
- 5700 tenge – from each hectare of non-irrigated arable lands affected by moderate degradation,
- 1050 tenge – from each hectare of pasture lands affected by moderate degradation.
- *Total annual economic loss* due to desertification in Kazakhstan is estimated at 93 billion tenge (US\$ 6.2 billion), including land resources exhaustion – tenge 25 bl.; exhaustion of water resources (desiccation) – 10 bl.; soil pollution – 14 bl.; and loss of vegetation – 44 billion tenge. Though the data is perhaps an intelligent guestimate, it gives nevertheless a rough idea of the dimensions of economic loss on account of degradation of agricultural resources.

20. The increase in land degradation has both direct and indirect negative impact on the poverty and unemployment situation in the country, leading to sharp reduction in production of food products and even to complete loss of land fertility.¹⁴ There are no exhaustive data on impact of land degradation processes on the level of income and population employment. Nevertheless, there is considerable anecdotal evidence that the critical environmental situation and sluggish economy have seriously damaged the living standard of population, especially in the zones of ecological disaster. For example, in the Aral Sea region, exhaustion of water resources and decline of fishery caused decline in production and unemployment. According to estimates in NAP-1997, the number of unemployed in 1995 rose to 16,000 in Kzylorda oblast, of which 12,000 being in rural areas. Virtually every family was affected by unemployment, which touched the lives of over 100,000 people. According to one estimate, percentage of people with income less than a living wage has grown from 34.6% in 1996 to 43.4% in 1998.

III. Implementation of the UNCCD

A. The National Action Programme (NAP)

21. The Republic of Kazakhstan ratified the UN Convention on combating desertification in 1997. In the same year, the Government set up a national group of experts, with financial support of UNEP and UNDP, which developed the National Action Program on combating desertification. The NAP preparation was generally managed by the National coordination body (NCB) under the Ministry of ecology and bio-resources (present Ministry of environmental protection). The 1997 NAP incorporates a number of strategic directions. These are summarized below along with the current status of their implementation:

- Development of the main principles on environmental zoning of the territory of Kazakhstan. The aim is to identify and estimate (by degree of desertification) ecological

¹³ The annual economic damage made by desertification in Kazakhstan is estimated by methods of UNKOD. Although the estimates are quite relative, they give an idea of size of economic losses as a result of degradation of land resources. The total annual damage was estimated at \$ 4.6 billion in NAP-1997, as compared to \$ 6.2 billion in the draft NAP- 2002. The 1997 estimates are: Damage made by degradation of pastures in Kazakhstan is estimated at US\$ 963.2 million a year and by humus loss on arable lands – US\$ 2.5 billion. Lost revenues in the result of erosion of pastures constitute US\$ 779 million, in the result secondary salinization, swamping and other reasons – US\$ 375 million. (*The National program on combating desertification, 1997*).

¹⁴ Lack of soil protection technologies led to loss of humus by 18-25%, decrease of soil fertility and yield by 20%. Cultivation of lands with low productivity in the steppe zone (saline lands, sand and salinized soils) resulted to date in withdrawal of 17 million ha. of these lands to fallow lands. These were pastures having productivity of 5-10 centners per ha., on which up to 10 million heads of cattle on the average could graze.

and geographical regions, in order to plan the rational use of natural resources and devise a system of environmental protection on the basis of the Territorial comprehensive schemes of nature protection (TERCSNP). At present such ecological and economic zoning has been carried out for the Kazakhstan part of the Aral and Caspian regions.

- Organization of the system of monitoring of desertification processes. Due to lack of required funding, such system has not been developed, although some its elements (system of monitoring of land resources, environment and climate through hydrometeorological surveys) are functioning and allow to certain extent periodical estimates of meteorological data. Efforts are underway, subject to availability of funds, to develop a unified and comprehensive state system of environmental monitoring.
- Improvement of the system of management of nature protection activities, with particular emphasis on the development of legal framework for nature use and financial and economic mechanisms to support such activities. To date new laws have been adopted, such as laws "On Land", "On Atmospheric Air Protection" and "On Administrative Offences", and certain provisions have been clarified and amended in the ongoing legislation "On Environmental Protection" and "On Specially Protected Natural Territories". The work is being carried out on the law "On Environmental Insurance" and on new versions of Forest and Water Codes. As regards financial mechanisms, with enforcement from January 1, 2002 of new Tax Code, a more rational system of payments for nature use was established. As a consequence, the earlier special funds at the Republican and oblast levels to finance specific nature protection activities, have been abolished, causing a serious set back to their implementation, at least in the short run.
- Measures on rational use of natural resources are wide ranging in their coverage and address: (i) elimination and prevention of degradation of soils, vegetation and raw material resources, pastures, hayfields, forest, zoological and water resources; (ii) phytomelioration and supplying of pastures with water; (iii) restoration of fertility of eroded and dehumified soils, (iv) melioration of lands of secondary salinization; (v) recultivation of technogenously damaged landscapes; (vi) restoration of forests and (vii) biodiversity conservation.
- An important measure requiring pointed mention relates to the **development of network of specially protected natural territories (SPNT)**. Regarding this Program, the government adopted in 2000 the Concept of SPNT development (2000), which aims at expansion of their network. However, so far total area of all SPNT has increased to only 4% due to funding constraints.
- Development of the program "Kazakhstan Forests". This includes a number of projects to be implemented with assistance of international organizations. However, these projects have local demonstration character and the lack of funds does not allow to ensure their wider dissemination;

22. The above program of the 1997 NAP builds upon the Government approved Concept of rational use and protection of land resources of the Republic of Kazakhstan during 1995 - 2010 to be financed through the republican and local budgets and state and private land users. The Concept envisaged three implementation stages to solve the following strategic aims: improvement of land tax policy, implementation of land reform taking into account multi-structural character of economy, maintaining of state land cadastre and land monitoring. Solving of these issues shall ensure reproduction of land fertility,

control over use of land resources, including arable lands, pastures, perennial plantings, forest fund lands. The following main measures on land melioration and protection are envisaged in the Concept:

- conservation of agricultural lands and improvement of lands of other categories;
- change of structure of lands of forest fund through restoration of forests, creation of protection plantings on fields, pastures, waste lands in environmentally unfavorable regions;
- increase of areas under lands of nature protection, health, recreation, historical and cultural purposes;
- improvement of 3 million ha. of fallow lands to transfer them to improved pastures;
- zoning and inventory of land resources as the basis for development of measures on combating water and wind erosion (37.8 million ha.), melioration, improvement of feed fields, introduction of soil protection technologies and reconstruction of irrigation systems;
- organization of the use of farm lands, monitoring and control over land use and protection, 25 time increase of the volume of field soil and geo-botanical research and other measures.

23. The Concept implementation started in 1995; however not all envisaged activities have been carried out due to frequent reforming of general government structures and lack of funding. Moreover, criteria of estimation of the processes of land degradation, applied by the bodies on management of land resources, do not comply with the CCD indicators, which make it difficult to integrate its activities within the framework of actions on combating desertification – an issue which needs to be resolved through a more holistic approach to monitoring.

24. External assistance for NAP preparation: The initial preparation of NAP was assisted by the UNCCD Secretariat and some other donor agencies. Grant assistance amounting to a total of US\$ 624,000 has been extended to Kazakhstan by international organizations for implementation of activities within the Convention on combating desertification during the period after its signing with the following breakdown:

- development of the National preparation activity, National Program and National Strategy and Action Plan on combating desertification - US\$ 160,000;
- holding of seminar on preparation of national reports for countries of Central Asia, East Europe and Caucasus and preparation of the First National Report of the Republic of Kazakhstan on combating desertification - US\$24,000;
- - implementation of projects on restoration of pastures (the Aral Sea region) and management of arid lands (Karaganda oblast, began in 2001) - US\$ 440,000.

25. The 2002 (draft) NAP: In 1999, the second stage work on the National Strategy and Action Plan on combating desertification (NSAPCD) was started as a part of the wider national policy on environmental and food safety, sustainable development, specified in the Government's long-term strategic vision for the country's development- called "Kazakhstan – 2030."¹⁵ The Long-term Country Development Strategy - 2030 has as its integral part a long-term strategy on "Environment and Natural Resources - 2030", which envisages four priority objectives directly related to the problems of combating desertification:

¹⁵ The Government's vision for the development of Kazakhstan, described in *Kazakhstan 2030—Prosperity, Security and Improvement of the Welfare of All Kazakhstan People*, is to “build an independent, prosperous and politically stable state with its inherent national unity, social justice and economic welfare of all the population.”

- creation of environmentally safe environment;
- balanced use of natural resources;
- conservation of fauna and flora diversity; and
- environmental education.

26. The work on aligning the 1997 Action Program to the above objectives led to the need for a more coordinated inter-sectoral approach to the problem of combating desertification. The exercise therefore evolved into the development of a new version of NAP with greater attention to a clear programmatic content, and an indicative timeframe for the implementation of specific activities, with some estimates of their costs and expected sources of their funding. As a result, at the end of 2001 a new document "The National Action Program on combating desertification" was prepared, which envisages implementation of number of activities during the period till 2011. Currently, this document is being considered by concerned state bodies and expected to be approved by the Government in the course of 2002.

27. **The 2002 NAP (draft)** is a crisper and operation-oriented strategic document. It also recognizes the importance of synergies between the UNCCD and the Conventions on Biodiversity and Climate Change and the need for a cross-sectoral approach to implementation of programs to combat desertification. It includes an Action plan on the implementation of the National Action Programme to Combat Desertification, which lists a series of activities to be implemented during 2002-2011 – see Annex 3. The new draft NAP (2002) is the work of the national experts, under the direction of the Ministry of Natural Resources and Environmental Protection, without much reliance on external technical or financial resources. However, the 2002 NAP is yet to be approved by the Government.

B. The Focal Agency & Institutional Framework

28. The Focal Agency for the implementation of the UNCCD-NAP in Kazakhstan is the Ministry of Natural Resources and Environmental Protection (MNREP)—renamed in a the latest reorganization as *the Ministry of Environmental Protection*. The Ministry is the focal agency for all the three Rio Conventions. Other agencies closely involved in the NAP process are: Ministry of Agriculture; Agency of Land Management; Ministry of Education and Science; and the local governments of the Republic of Kazakhstan, or akimats, at the provincial and district levels. The National Focal Point for the UNCCD, since December 2002 is: Mr. Atamurat Shamen, Director of the Department of Ecological Policy, Ministry of Environmental Protection.¹⁶ Till recently, the location of the focal ministry in Kokshetau, over 300 km from the seat of the national government in Astana, had affected its capacity to coordinate the UNCCD/NAP implementation with other concerned agencies, including resident missions of donor agencies. However, according to the decision of the Government of RK, the Ministry of Environmental Protection moved to Astana in December 2002, where the Government and all other ministries are situated.

29. The 2002 draft NAP contains a number of proposals to strengthen coordination arrangements. It states: "Intersectional character of desertification problems requires establishment of a coordinated multilevel management structure on action plan implementation". The following set up is proposed in the 2002 draft NAP:

- *Interdepartmental Commission to Combat Desertification (IDCCD)*, and/or a combined coordinating mechanism for the three Rio Conventions, to be called "*United Interdepartmental Coordination Commission U IDC*" to be responsible for carrying out

¹⁶ As part of the recent changes in September 2002, Mr. Aitekenov, the previous NFP, moved on promotion to the Ministry of Economy and Budget Planning.

commitments of international environmental treaties and agreements (U IDC). The latter is conceived as a body at the political level to ensure interdepartmental management.

- *Center to Combat Desertification (CCD)* that will function as an office of interdepartmental and interdisciplinary technical management and coordination of desertification measurers in the Republic of Kazakhstan.
- Special executive agencies in charge of programs and projects to provide technical project management support at the sectoral level, and local Project implementation units (PIU) to be established within the CCD structure.
- *Oblast Committees to combat desertification* attached to oblast akims' staff involving NGOs, large-scale nature users and oblast-authorized services.

30. Constraints to implementation of UNCCD: The effective implementation of the 1997 NAP-CCD was constrained by a number of factors. Geographic isolation of the MNREP (the CCD- Focal Agency located in Kokshetau) from the other concerned government agencies based in the capital city of Astana, handicaps efforts at closer coordination, a situation which has now been rectified with the movement of the Ministry of Environmental Protection to Astana. Another constraint is the weak capacity of the concerned government agencies to identify & prepare specific projects and programs to claim domestic budgetary allocations, much less to attract external donor assistance. The situation has been further complicated by stringent budgets, which has made it difficult to access budgetary resources even for the implementation of small pilot projects that were initiated under the CCD-NAP.

31. Synergies between the Rio Conventions: The responsibility for implementation of UNCCD rests with the Director of Environment Policy Department, in the Ministry of Environmental Protection, which ensures a greater sensitivity to the need to place CCD/NAP implementation within the perspective of overall environmental issues, including synergies between the desertification control efforts and conservation of biodiversity and climate change related issues. It may be noted here that Kazakhstan has been very active in the climate change Convention. The Focal Point¹⁷ of the FCCC functions as an NGO, outside the formal government structure, with its office in Astana. Kazakhstan has also formally asked to be included in Annex 1 countries¹⁸ to the Kyoto Protocol. Of the five Central Asian countries, *only Kazakhstan has ratified* in 2001 the UN Convention "On Protection and Use of Trans-boundary Water Flows and International Lakes" (the main water source in the country are trans-boundary rivers, Caspian and Aral Seas) and is negotiating with neighboring countries the principles and terms of joint use of trans-boundary waters, participates in international Caspian environmental program, has closed the Semipalatinsk nuclear field and is conducting research on the problems of rehabilitation of these lands, implements under assistance of international organizations a number of environmental and social and economic projects in the Aral Sea region. Thus, there is considerable scope for collaboration between the UNCCD and the other environmental Conventions.

32. Integration of NAP into the planning framework: It appears that NAP is treated as a "stand-alone" document and has not yet been integrated into macro-development and poverty reduction strategies. The issues of combating desertification have not been covered in the national indicative development plans and budgetary financial programs. It is expected, that this problem will be solved together with the increase of the NAP status, once the new 2002 NAP receives the Government approval.

¹⁷ Mr. Kanat Baigarin, Director, Climate Change Coordination Centre, Astana. kbaigarin@climate.kz

¹⁸ Annex1 countries are developed countries that agreed to specific targets for reduction of gas emissions.

C. Strengthening NAP process and participatory approaches¹⁹

33. The main reasons of slow implementation of the NAP on combating desertification in Kazakhstan are the lack of intergration of environmental and economic policies of the government, inter-sectoral coordination, necessary institutional framework and established economic mechanisms, and weak awareness and training of farmers and rural entrepreneurs in methods of sustainable agricultural activity. To eliminate these reasons it is necessary:

- to accelerate adoption by the Government of the new version of NAP on combating desertification;
- to create necessary structures on inter-sectoral coordination and management of combating desertification at all levels;
- to create necessary legal framework; and
- to develop economic mechanism, envisaging planning and budgetary financing of activities on combating desertification, development of the system of micro-lending and insurance of agricultural activity;

34. The focus of NAP implementation should be on a three-pronged approach:

- Mainstreaming
- Participation of Civil Society organizations, such as NGOs and CBOs
- Operational orientation to the implementation process

35. **Increased role of NGOs in UNCCD implementation.** In the recent years the participation of the civil society in Kazakhstan has considerably increased through the development of the networks of non-governmental organizations (NGOs). At present the number of these organizations amounts to 1700, 300 institutions of which deal with environmental issues. Among them about 10 organizations work on desertification problems.

36. To integrate efforts of public organizations in environmental decision-making the First EcoForum was established in 1997, which united more than 70 NGOs. To date three sessions of Ecoforums were held and a fourth one is being planned to take place in near future. One of the main results of NGO EcoForum is the adoption of the Programme “Combating desertification and biodiversity conservation” (CDBC). This programme consolidates all the interested public associations both registered ones and those which are still under registration. A number of NGOs implement projects on combating desertification in certain regions of Kazakhstan and are members of RIOD -international network for non-governmental organizations.

37. In October 2000 Kazakhstan ratified the Aarhus Convention. In January 2002 within this Convention, the Government of Kazakhstan approved the Concept of state support for non-governmental organizations of the Republic of Kazakhstan which envisages the following forms of support:

- Informational – through raising awareness on NGOs activities in mass media
- Consultation – through providing consultation services
- Methodical – through development of special methodic recommendations
- Organizational and technical – though holding informational and educational activities and joint actions on social important issues
- State social order to implement special social measures and programs

¹⁹Ms. K. Karibayeva, Country Situation Paper for Kazakhstan. A supplementary section on NGO participation was supplied by her in response to the discussions in the Tashkent meeting in October 2002.

38. Participation of NGO in solving desertification problems is elaborated in new version (2002 draft) of the National Action Programme to Combat Desertification in the following activities:

- Regulation of interaction with NGOs of UNCCD parties;
- Development of organizational structure for national NGOs network;
- Development of the NGO national action plan and its integration into NAPCD;
- Increasing public awareness on the processes of desertification and degradation, objectives and provisions of the convention and NAPCD goals;
- Collection of the information on desertification processes;
- Participation in implementation of new technological projects on restoration of land productivity;
- Introduction of new projects on alternative livelihood sources;
- Providing maximum participation of the local population in NAPCD implementation;
- Increasing of women and youth role in the countryside;
- Undertaking of measures on improving economic situation to exterminate poverty and promote sustainable development at the local level.

IV. Policy framework

39. The main policy issues in the context of UNCCD are:

- A. Macro Policy Agenda
- B. Poverty Reduction Strategy
- C. Legal Framework
- D. Natural Resource Management and Environmental Policies
- E. Agricultural Policies
- F. Water Conservation Policies
- G. Evolving a cohesive Strategic Policy Framework

A. Macro Policy Agenda

40. Kazakhstan Government has moved decisively and with vigor in pursuing some of the key goals of national policy, such as national security, internal political stability and consolidation of society, macroeconomic stabilization, and economic growth based on an open market economy with high level of foreign investment and internal savings. Major progress was made in privatization, price and exchange rate liberalization, in reform of the pension system, civil service, finance and banking system, in public procurement, tax administration, and communal services. The country's economic performance has improved markedly since late 1999 owing to a favorable external environment, and to prudent macroeconomic policies. The country faces a two-fold challenge- to manage efficiently the large increase in income related to rapid oil sector development while achieving internal and external balance, and to persist with structural reforms so as to lay the foundation for sustained economic growth and employment condition. The main challenges in this context are:

- **Good governance** with particular emphasis on reforming the public sector, improving the efficiency and effectiveness of public services, and management of fiscal resources in a transparent manner. The reforms need to focus on: (i) fiscal stabilization, (ii) strengthening transparency and accountability, and (iii) introducing institutional and administrative mechanisms to improve the quality of public services.

- **Promoting private sector driven and broad-based growth** to generate employment opportunities and improve incomes of the work force in urban and rural areas. This would also help diversify the production base and commerce and trade to reduce the current dependence of the economy upon the export of a few commodities, e.g., oil and semi-processed metals, and extractive raw materials.
- **Poverty reduction** through targeted safety-net programs for the most vulnerable and improved access of the poorest to basic public social services.
- **Environment protection** to control damage to ecology and public health and promote a rational and sustainable use of natural resources. Addressing environmental degradation would require restoring marginal lands, cleaning up contaminated rivers and water resources, improved management of drainage, water use and sewage practices, and curbing industrial pollution.

B. Poverty Reduction Strategy

41. Poverty and land degradation could limit Kazakhstan's growth potential. The Government introduced in 2000 a program to fight poverty and unemployment during 2000-2002. It envisages employment of at least one family member, stabilization and improvement of living standards. The program aimed at reduction of unemployment by 8.7% in 2002 as compared with 1999, and a somewhat modest target of creation within three years of 165 jobs in agriculture. The Government has since undertaken to develop a more comprehensive Mid-term program on fighting poverty for 2003-2007. The Program is being developed with the support of ADB, the World Bank and the UNDP.

42. The ADB is currently assisting Kazakhstan with a poverty study which will be an important building block in developing initially a three-year Poverty Reduction Program (PRSP) for the period 2003-2005 by the Government, in cooperation with the key development partners. The PRSP being drafted currently by the Government consolidates the existing programs and legislations of the Government that directly or indirectly impact on poverty into a cohesive and sustainable approach to poverty reduction. The stated goal is to reduce poverty and the basic directions for achieving this goal are five-pronged: (i) measures that will improve program efficiency, (ii) measures to improve poverty level indicators, (iii) measures to reduce poverty of the vulnerable and disabled groups, (iv) measures that will address income-based and non-income poverty; and (v) measures that will improve the institutions of the state, its relations with NGOs and trade unions, and the private sector. State interventions are envisioned to be through three modalities:

- policies and institutional reforms that will provide the enabling environment for the private sector to play a catalytic role in growth that will generate incomes and jobs;
- public support for the build-up and delivery of social services that are considered as public goods in nature; and
- social protection and social assistance schemes for the vulnerable and most disadvantaged groups.

43. The Program will need to be further refined because (i) the implied approach of Government is one of greater government intervention and larger budgetary commitments to social expenditures that may turn out to be unsustainable; (ii) equity-based growth (through wide-reaching restructuring measures that combine sound macroeconomic and sector-based reforms) does not seem to be a priority; and (iii) intervention measures as well as the funding sources and requirements are not clearly prioritized. It was envisaged that the Program will be presented in a national conference by end-April for approval by the President and the Parliament in the beginning of 2003. The ADB hopes to use the Program as the basis

for drafting its Poverty Reduction Partnership Agreement with the Government. However, there is need for stronger advocacy to influence the Government in reviewing the Program's approach and focus so that it will effectively impact on poverty.

44. *It is important that the CCD- Focal Point is proactive in ensuring that the Poverty Reduction strategy and program (PRSP) clearly incorporate the land degradation concerns in the PRSP.* The ADB draft Paper on "Poverty in Kazakhstan- Key Issues and Suggested Agenda for Action" proposes that in order to address environmental concerns, the direction of intervention should be: (i) development of environment projects that are income-generating and employment-creating in environmentally-affected areas with high poverty incidence combined with ameliorative measures that address proactively the health-related problems or lack of incomes (through micro-financing schemes or civil works during the slack economic seasons); and (ii) innovative resettlement schemes especially for households residing in areas classified as highly ecologically at risk zones because of proximity to the Aral Sea or those that previously served as nuclear testing sites during the Soviet period. *In addition, particular attention should be paid to the problems of dryland management in the abandoned drylands in the northern areas of the country, given its ecological and economic implications.*

C. Legal Framework

45. The central issue is not the dearth of legislation, but rather its poor implementation. In practice, the enforcement of compliance is severely lacking throughout Central Asia. The Laws and Codes adopted in the republic (the Laws "On the Air Protection", "On Conservation, Renewal, and Use of the Animal World", the Forestry Code, the Water Code, the Presidential Decrees "On Land", "On Mineral Wealth and Use of Mineral Wealth", the Law "On Oil") have regulated or covered the following main aspects:

- Characteristics of the competence of the government bodies in management, use, and conservation of a natural objects, and division of functions between the Government, ministries, regional and local government bodies is carried out;
- The rights for natural resource use, types of use, terms, nature use licensing, duration of use, natural resource monitoring procedure, its cadastre, structure, and the system of payments;
- Measures of legal responsibility for the breach of these laws; and
- International cooperation in conservation and use of natural resources

The work on modification of the current legislation and development of the legal and regulatory documents on a variety of directions of nature use and management of environmental protection was undertaken by the Ministry of Natural Resources and Environmental Protection under a program for drafting of laws and regulations during 1999-2002. This Program includes modification of 13 laws currently in force and development of 14 new laws and more than 40 regulatory acts under the existing legislation.²⁰

46. The main laws & regulations of the Republic of Kazakhstan of relevance to the UNCCD are listed in the (draft) NAP-2002 as follows:

²⁰ Vladimir Mamaev, Ph.D., Woods Hole Group, Inc., *Sustainable Development in Central Asia: Assessment and Challenges of Agenda 21*, Zero Draft Report, August 16, 2001.

- Article 31 of the Constitution of the Republic of Kazakhstan (1995) which states: “State set itself the conservation of environment favorable for human life and health as an object”.
- «On Land» (2001), where the priorities for sustainable use and land conservation are defined as integral part of the state’s economic development,
- «On Environmental Protection» (1997), that states that the nature itself and natural resources lay the basis for life and activity of the people of the Republic of Kazakhstan, their sustainable social and economic development and improvement of well-being. It also determines legal, economic and social basis of environmental protection for the sake of the present and future generations,
- «Concept of ecological safety», states that ecological safety is one of the substantial components of the National safety and one of the most important aspects to protect interests and priorities of the country in international integration processes,
- Concepts for rational land usage and conservation in the Republic of Kazakhstan for 1994-1995 and till 2010. (the main regulations),
- Strategy of forest sustainable development in Kazakhstan till 2030 and Concepts of forestry, fishery and hunting development, specially protected territories in the Republic of Kazakhstan for 1999-2003 (main regulations). *It should be clarified that the Strategy and Concepts concerning forest resources are not the operating documents since they are yet to be finished off and approved by the Government.*
- Though not specifically mentioned by the NAP, laws, such as those covering privatization of farms, the land and water codes, and regulations concerning water users associations, credit unions and micro-finance are of direct relevance to the objectives of UNCCD.
- *There is also need to factor in sustainable development of dryland agriculture and address the problems of land degradation in rainfed areas.*

47. The NAP emphasizes the need for rationalizing and improving environmental legislation, particularly with a view to strengthening the provisions with respect to combating desertification. It sets out the following tasks to be realized in this context:

- Systematization of all existing standard and legal documents;
- Identification of measures on effective implementation of environmental legislation documents;
- Harmonization of environmental legislation with correspondent legislation of the main industrialized countries of the world taking into account environmental principles approved by world community including on combating desertification.
- Relevant 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.

D. Natural Resource Management and Environmental Policies

48. The Inter-Ministerial statement for the WSSD (Aug 2002), has suggested that the following key environmental problems face Kazakhstan: (i) deficit of water resources; (ii) environmental pollution with industrial and municipal solid waste; (iii) degradation of pastures and arable lands; (iv) air pollution of urban areas; (v) environmental pollution in oil field areas; (vi) shortage of forests and especially protected natural territories; and (vii) wastewater pollution of water bodies. Kazakhstan has other environmental problems such as pollution associated with wind blown dust and salt from the desiccation of the sea bed

of the Aral Sea, which receded severely due to major poorly planned irrigation schemes diverting the flows of the transboundary Syrdarya & the Amudarya. A similar fate might await the Illi-Balkhash basin. *Water quantity* issues are of paramount concern as misuse and overuse of water for irrigation and excessive diversions of major rivers has resulted in shortages of surface waters.²¹

49. There is a very large amount of information on environment but much of it is irrelevant for useful policy development or even sound assessment of the environmental conditions. Moreover, resource management and pricing in the FSU systematically failed to take account of the scarcity value, and thus the opportunity costs, of natural resources and so reinforced the unsustainable patterns of use. Another legacy that is a particular problem for the contemporary regional environment of Central Asia and not just Kazakhstan, are the old institutional structures, and their narrow practices for managing regionally used resources, such as the waters of Syrdarya, Amudarya, or the resources of the Caspian Sea, for a single purpose i.e. just irrigation or just fisheries or just cotton.

50. With the transition to market economy in the post independence period, economic instruments and funds for environmental protection were established. Fees, based on Government Decree number 280, are levied for: (a) the use of natural resource and pollution charges; (b) the protection and restoration of natural resources; (c) environmental insurance; and (d) creation of environmental protection funds. The *Strategic Plan for the Development of Kazakhstan up to 2010*, adopted by Presidential Decree of 4th December 2001, No. 735, deals with environment-health as well as environment-agriculture issues and establishes certain key strategic targets for environmental policy. The short term environmental management objectives for 2002 – 2004, were established as: (i) supplying safe, high quality potable water and reducing water resource deficit; (ii) increasing the area covered with forests; (iii) rational use of forests and other flora and fauna resources; (iv) alleviating impacts for the environment caused by economic activity; and (v) increasing re-use of industrial and household wastes. Implementation of these objectives, however, has been constrained by shortage of funds and weak environmental management capacity. In this context, ADB's assistance to Kazakhstan is based on a three fold approach: to build the capacity of environmental institutions; to respond to specific natural resource management needs; and to draw Kazakhstan into the Bank's regional initiatives.

E. Agricultural Policies

Issues facing the agricultural sector

51. Kazakhstan's agricultural sector is characterized by intensive mono-culture of wheat in the north and rice in the south, and development of concentrated livestock farming using deficit feed base. Such unsustainable cultural practices have compounded the land degradation process and resulted in the following serious problems in the agricultural 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;
- Sharp reduction of tax revenues in the budget, received from agrarian and processing sectors.

²¹ ADB TA 3350: Kazakhstan Country Environmental Analysis, Scott Wilson Kirkpatrick & Co. Ltd., September 2002.

52. Total grain production declined by half from 28.5 million tons in 1990 to 14.26 million tons in 2001. Production of meat, milk and other food products also showed a marked decline (see Annex 3-table 1). The share of agriculture in the GDP fell from 12.3 % in 1995 to 8.0% in 2000. The number of loss making agricultural enterprises rose from 1427 in 1995 to 1735 in 2001(see Annex 3- table 2). Land degradation, coupled with disruption caused by land reforms, resulted in decline of productivity. Average yield of grain on all categories of farms declined from 12.2 centners/ha in 1990 to 9.4 centners/ha in 2002 (see Annex 3- table 3). Livestock – an important agricultural activity in Kazakhstan- also shows a steady decline in stock of livestock, though peasants have managed to make modest increases in their livestock holdings (see Annex 3- table 4).

53. The depressed state of agriculture acts as a damper on farm units and agricultural enterprises to invest and grow. According to a survey conducted by the Statistics Agency of the Republic of Kazakhstan in 2001, the agricultural producers were asked about the factors, which they considered constraining production and entrepreneurial activity. The results of the survey are summarized below:

Constraining Factors as experienced by respondents	% of those surveyed	
	Agriculture enterprises	Peasant farmers
1. Lack of funds	60%	40%
2. Lack of working capital	41%	27%
3. High taxes	51%	33%
4. Low purchase prices	65%	80%
5. Buyers' insolvency	27%	47%
6. Old material & technical facilities	25%	33%

Note: About 20% of respondents think that economic state of their farms in the subsequent period can worsen or be close to bankruptcy.

Source: Kazakhstan: Country Situation Paper

54. The above responses show that both agricultural enterprises and peasant farmers feel most constrained by low prices for their produce and by lack of funds or credit. The agricultural policy therefore must address these concerns to improve incentives for higher production and improved productivity. In this context, the Government has approved in 2001 some reforms to revitalize the farm sector by providing for land use rights, credit and farm machinery on lease.²²

Drylands Management.

55. Government strategy for desertification control includes emphasis on rehabilitation of the abandoned drylands in the northern areas of the country with alternate sustainable land-use systems. In Kazakhstan, there are an estimated 59 million ha. of degraded rangelands of which 10 million ha. have been ploughed and abandoned. With reseeded and improved management of these areas, it is possible to substantially increase animal and/or animal product off-take (meat, milk, milk products, hides and wool etc.) and directly benefit about 0.5 million people (120,000 farming families) in the dryland areas of Kazakhstan. In this context, GOK, with support from the World Bank, GM and IFAD have prepared a pilot project for funding from GEF. The project proposal, which was recently approved by GEF, will target 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. The project will provide technical assistance to these new, inexperienced farmers and demonstrate the benefits of re-vegetation, the adoption of improved technologies for sustainable rangeland/pastureland management, the management of existing shelterbelts, and better marketing of

²² Kazakhstan: Country Situation Paper provides details.

milk, meat and livestock products. The project also addresses three global environment objectives of OP 12 as follows: (a) conserving and sustainably using biological diversity, as well as the equitable sharing of benefits arising from bio-diversity use, for example, promoting eco-tourism and using biomass for energy; (b) reducing net emissions and increasing storage of greenhouse gases in terrestrial ecosystems; and (c) conserving and sustainably using water bodies. The project is currently at appraisal stage.²³

56. The project, located in marginal cereal growing areas in the Shetsky rayon of Karaganda oblast in Kazakhstan, has considerable potential for replicability in similar agro-climatic zones in Kazakhstan and Central Asia.²⁴ The DMP, through its various components, has the potential to reverse declines in biodiversity by increasing the number of non-weedy species and the productivity of the land. Through training in rangeland and livestock management, flora and fauna populations should be enhanced. This, combined with the re-vegetation of abandoned croplands, should improve the quality of underground and surface water, thus reducing the pollution of international waters from non-point sources. Also, through better water management practices, precipitation will be conserved and its quality improved to the benefit of both domestic and agricultural consumers. GEF funds will help reduce the barriers to farmers adopting environment-friendly agro-pastoral practices and allow the Government to consider scaling-up the program.

Privatization of farms & problem of rising indebtedness

57. Kazakhstan has had a chequered history of land reforms in the post Soviet era. Like other CIS countries, Kazakhstan at independence inherited a state-owned farm sector. The farm sector was characterized by large rain-fed grain farms in the north and smaller, largely irrigated mixed farms in the south. In practice, the reforms aimed at privatization of state farms meant conversion of state and collective farms into producer cooperatives, with little real change in pattern of ownership, management and control. The farms suffered losses caused primarily by low prices for outputs due to continued state controls on marketing, while input prices were liberalized, and disruption of earlier state support structures. The farms incurred large debts, hoping to be bailed out by the government. In order to stem the fiscal burden this imposed, the government passed the Bankruptcy Law in 1997 extending the bankruptcy procedures to the farm sector, so as to facilitate liquidation of insolvent and unviable farms. In order to revitalize the farm sector, it decided to write-off much of the debt accumulated as a result of directed lending through the Agricultural Support Fund. This has led to restructuring and changes in the management of the farms that survive liquidation. The new form of organization, which takes ownership of the non-farm assets, is the formation of a partnership of few individuals to give them a firm stake in running the farm enterprises and making them viable economic entities. This, however, reduces the status of the farm workers from shareholders to wage laborers. Within the northern oblasts a rapid process is underway of acquisition of ownership and control of complete entities by large grain and food industry companies, which are buying up groups of complete former state and collective farms, but mainly in the wheat growing zones. This transformation based on corporate governance is being encouraged by the Government as a means to halt uneconomical farming. Those left out of this process of acquisition and modernization are evolving into various type of farm units.²⁵ For them, the issue of formalization of titles to land rights would become most relevant. However, the whole situation appears to be in a melting pot. Much will depend on employment generation potential of the non-farm sector to absorb any excess supply of farm workers made redundant in a modernized agriculture sector.

²³ The project costs are estimated at USD 10.28 million, with GEF funding amounting to \$5.01 million, GOK \$2.71 million, beneficiaries and other donors (including IFAD and GM) \$2.56 million. In addition PDF B assistance amounted to \$ 0.35 million. GEF and IFAD had also contributed towards preparation costs.

²⁴ World Bank, Kazakhstan: Drylands Management Project (GEF), Project Concept Document, March 11, 2002 (Project ID # P071525).

²⁵ World Bank Technical Paper # 458, Kazakhstan, A review of Farm Restructuring, John Gray, March 2000.

58. The 2001 legislation and support measures to revive agriculture rely heavily on subsidization and cheap credit. Kazakhstan, like many other transition economies, has essentially two types of support policies directed towards agriculture. They are price interventions and direct government subsidies. The Government uses the methods of supporting through price interventions to support grain-sowing farms. It also can fix appropriate volumes and adequate prices for products purchased to supplement state reserve.

59. *The ADB, within the framework of promoting good governance, approved in 2000 the Farm Restructuring SDP and associated advisory TA²⁶ to support the Government's efforts for agriculture reform, improve farm management, develop a legal framework for secured lending, enhance participation in agriculture reform and development through a nationwide campaign, and reduce interference by local governments in farms and rural business affairs. Likewise, the World Bank's ongoing Agricultural Post-Privatization Project and proposed ASSP to improve farm productivity and rural incomes offer good entry points to address land degradation control and UNCCD objectives. It should be possible to piggy-back some of the NAP activities within the framework of this program. The CCD-Focal Point may explore this with the concerned Government counterpart Agencies*

F. Water Conservation Policies

60. In Kazakhstan, as in the rest of Central Asia, excessive use of water resource to meet the growing demands of industry and agriculture, has shown little regard to the problems of preservation and restoration. The loss of water through evaporation has increased sharply because of the filling of reservoirs and expansion of the water area. Moreover, the mode of water release from reservoirs dictated by the interests of hydro energy has considerably changed the characteristics of river run-off.²⁷ The shortage of water defines the limits of ecologically admissible development for industry and agriculture in Kazakhstan. In this regard, one of the most important items is the problem of the estimation of renewable water resources and of the anthropogenic effects on river run-off. A special aspect of this problem is the assessment of ecological and socio-economic consequences of flow regulation by the reservoirs, for energy purposes.

61. Water in conditions of the arid climate in Kazakhstan is a major factor of agricultural production, which is concentrated in irrigated lands. According to the data of the Agency of the Management of Land Resources, irrigated agricultural lands constitute 2.2 million ha. The largest areas under irrigated lands are located in Almaty, Jambyl, South-Kazakhstan and Kzylorda oblasts. As compared to 1995, there has been a marked reduction in areas under agriculture production -- arable lands reduced by 454,000 ha., perennial plantings and pastures -- by 6,000 ha., layfields -- by 4,500 ha. The major reason is collapse of existing system of water use and operation of irrigation networks, and sharp deficit of water for irrigation from the surface water sources. The latter is connected with both reduction and pollution of water resources from trans-boundary rivers and uneconomical water use, which several times exceeds average percentage of water consumption in other countries with similar natural conditions. The main reasons for inefficient use of scarce water resources are -- primitive watering technologies and water transportation, and lack of proper traditions and economic incentives for water saving. As a result, large filtration losses and excessive watering norms lead to secondary salinization, swamping, water erosion and withdrawal of irrigated lands from rotation. Discharge of drain water leads to pollution of rivers by fertilizers, pesticides and increase of mineralization of river water.

²⁶ TA 3541: Deepening of Agricultural Reforms and Development Program, for \$800,000, approved on 14 November 2000. See: ADB, *Kazakhstan- Country Strategy and Program Update (2002-2004)*.

²⁷ Downstream of the rivers Irtysh and Syr-Darya there are cascades of hydropower plants and the Kapchagai reservoir. The ecosystems of the floodplain of the Irtysh and the deltas of the rivers Iii and Syr-Darya are now being degraded.

62. The Government is fully aware of the seriousness of the water situation. It approved in January 2002 the Concept of development of water sector of economy and water policy. The Concept proposes policy actions at a number of levels: (i) to keep state ownership of water resources and continue to charge for special water use; (ii) a holistic approach to water management based on water basin as a single entity; (iii) to envisage participation of water users in covering costs for maintaining and operation of water facilities to ensure sustainability of water sector; (iv) water supply systems shall use modern technologies of water storage and discharge control outlets, and ensure comprehensive use of water resources and reduction of water losses during transportation to users; and (v) supply of potable water would involve attention to restoration and improvement of the existing water supply systems as well as exploration of new and alternative water supply sources and options, improved quality of water supply, and rational use of potable water. It is envisaged that the above Concept will become a basis for elaboration of specific programs and activities on the development of water sector and water policy of the government.

63. The policy issues involved in the water sector are complex and varied requiring action at the level of: (a) tackling transboundary issues²⁸ through regional cooperation; (b) rehabilitation, upgradation and maintenance of storage and distribution infrastructure; (c) incentive framework that would penalize wasteful use of water; (d) active participation of water users through mechanisms such as water users associations, which go beyond the objective of cost-sharing; and (e) tackling issues of water quality control and monitoring. *In this context, the report of the Kazakh CAMIN Working Group on NSAP for Sustainable Mountain Area Development identifies the following priority areas, which would require support for in-depth technical studies:*

- Estimation of the renewable water resources, climatic and anthropogenic changes in run-off.
- Problems of cross-border water sharing.
- Estimation of the dynamics of the quality of natural waters and cross border transfer of pollution in water and the atmosphere.
- The processes of surface and ground water interaction.
- Estimation and prediction of climatically- and anthropogenically based changes in activity of the natural processes and phenomena that affect the dynamics of mountain ecosystems and the conditions for run-off formation.²⁹

G. Evolving a cohesive strategic framework to combat land degradation

64. The preceding analysis shows that the Government has been keen to respond to the emerging problem areas in search of policy solutions to combat desertification, revive agriculture, improve water resource management and more generally to move the economy forward to realize the long-term goals as set out in the milestone Government document *Strategy of Development of Kazakhstan to 2030*. The draft CCD-NAP-2002 seeks to align the *Action plan to Combat Desertification* (see Annex 3) to this evolving national policy context. The main building blocks for constructing a cohesive strategic framework comprise: (i) mainstreaming, involving integration of measures to combat desertification into the national programs on economic and social development, ; (ii) exploiting synergies between the NAP-CCD and the other RIO conventions and NEAP, ensuring consolidated implementation of international conventions

²⁸ These issues include the problems of water distribution between countries and the cross border transfer of pollutants in air and water, which have become acute for the Central-Asian region.

²⁹ There is a close interaction between climate and water flow trends. The anthropogenic changes in the condition of mountain watersheds and the reduction in ice resources over the last 30 years affect water flow. This is probably the main reason for the statistically reliable changes in annual distribution of run-off within the Ili-Balkhash.

and agreements ; and (iii) informing and ensuring participation of all groups of population in the implementation process concerning desertification problems.

65. **Mainstreaming** implementation of CCD- NAP to combat desertification into the broader development policy and programs is a major challenge in Central Asia. The draft Kazakh NAP-2002 recognizes the importance of mainstreaming, but is not so clear on the mechanics of achieving this objective. This calls for action at (i) strengthening the management of the Focal Institution, (ii) putting in place processes to improve inter-agency coordination and cross-sectoral integration, and (iii) ensuring linkages between programs to combat desertification and the national budgetary and PIP processes, so that such programs are part of the screening process to determine national investment priorities. This would facilitate their access to domestic and external funding sources.

66. **Synergies** between CCD and the broader environmental agenda and action-programs of the biodiversity and climate change conventions exist but need to be exploited through proactive collaboration. With the inclusion of land degradation as a focal area of GEF,³⁰ there would be greater scope for development of single or multi-focal programs addressing global land degradation and related environmental problems with funding support from GEF. Each of the CARS has prepared a National Environment Action Plan (NEAP) and at the regional level there is a Regional Environmental Action Plan (REAP) for Central Asia, which was prepared with support from ADB/UNEP and received ministerial level endorsement from all the CARs in September 2001. The REAP emphasizes close interface between environmental and natural resource management concerns.

67. **Active participation** of the local governments, NGOs and CBOs and the civil society in the CCD/NAP implementation process is crucial for extending the outreach of the implementation of the UNCCD to the grassroots. In this context, the Kazakhstan NAP-1997 emphasized the need for “defining roles of various organizations (state, NGOs, international, scientific and educational) and of international cooperation in combating desertification in Kazakhstan, envisaging spheres for their participation in solving the mentioned problems as well as directions of research and activities on information dissemination and training.”

V. Priorities and Programs to Combat Land Degradation

68. This Part discusses the issues of support at the level of programs for the prevention and control of land degradation through sustainable land management. Such programs should be conceived within the strategic framework of tackling broader environmental concerns and how they interact with issues of broad based economic growth and poverty reduction. It may be noted here that Kazakhstan is considered by multilateral financial institutions, such as the World Bank and ADB, as being eligible to borrow on ordinary terms, and not from their soft windows. The Government is therefore becoming increasingly selective in borrowing on hard terms. The Government’s preference is to get external assistance in the form of grants. The discussion is organized into following sections:

- A. Priorities of the Government to combat land degradation.
- B. Assistance to Kazakhstan from external donor agencies.
- C. Support for sub-regional/ regional programs.]

³⁰ The proposed amendment to the GEF Instrument is expected to be approved by the Second GEF Assembly scheduled to meet in Beijing on October 16-18, 2002. As a result, GEF would “designate land degradation, primarily desertification and deforestation, as a GEF focal area, as a means of enhancing GEF support for the successful implementation of the UN Convention to Combat Desertification.” GEF/A.29 July 31, 2002.

A. Priorities of the Government to combat land degradation.

A.1 Main priority areas

69. The Government's 'Concept of rational use and protection of land resources of the Republic of Kazakhstan during 1994-1995 and the period till 2010' to be financed through the national and local budgets and state and private land users, lists the following program priority areas:

- conservation of agricultural lands and improvement of lands of other categories;
- restoration of forests through forestation, creation of protection plantings on fields, pastures, waste lands in environmentally unfavorable regions;
- increase of areas under lands of nature protection, and promoting their use as health, recreation resorts – i.e. through development of eco-tourism;
- improvement of 3 million ha. of fallow lands to be transformed into improved pastures;
- zoning and inventory of land resources as the basis for development of measures on combating water and wind erosion (37.8 million ha.), melioration, improvement of feed fields, introduction of soil protection technologies and reconstruction of irrigation systems;
- organization of the use of farm lands, monitoring and control over land use and protection, and substantial (2.5 times) increase in the volume of field soil and geobotanical research and other related measures.

70. The *draft* UNCCD NAP-2002 provides an Action Plan containing a more current list of priority activities from the perspective of combating desertification/land degradation. The Action Plan is given in Annex 3 and is summarized in terms of broad categorization in Box 1. *The various program activities listed in the Action Plan relate to the grant assisted activities, including some being currently assisted by donor agencies. These would need to be complemented by investment projects of agencies, such as Agriculture, Irrigation and Land Development, which address land degradation concerns. Such programs would need to be identified and prioritized to access domestic and external funds. For this purpose, the priority programs would need to be placed within the government's strategic policy framework, prepared more fully, and brought into the national review and screening process for allocation of scarce budgetary resources and for inclusion into the Kazakh Public Investment Plan (PIP). The PIP is an important enabling instrument to access assistance from donor agencies, as this makes such agencies aware of the projects or programs which are accorded high priority by the Government.*

Box 1. Abstract of Action Plan to implement CCD (Kz-draft NAP-2002)
1. Creating of a sustainable nature use policy
1.1. Activities aimed at reducing desertification and drought effects 1.2. Conservation and restoration of pastures 1.3. Forest conservation and restoration
2. Social, economic and political aspects of nature use and struggle against desertification
2.1. Increasing of income and employment of local population 2.2. Information systems, e.g., market intelligence 2.3. Social and economic instruments to combat desertification 2.4. Integration of programmes to combat desertification into complex development plans
3. Institutional frameworks, scientific and informative support
3.1. Creation of a national mechanism on combating desertification management 3.2. Regional and international cooperation in combating desertification 3.3. Informing and educating local population how to combat desertification 3.4. Scientific support of the assessment, prevention and struggle against desertification
Note: See Annex 3 for more details.

A.2 Projects under implementation

71. A number of relatively small projects supportive of UNCCD have received, or are expected to receive, grant assistance from donor agencies. These are listed in Box 2. The Government's National Action Plan on Environmental Protection for Sustainable Development (NEAP-1997) provides for five projects on conservation of arable lands and pastures. Of these, the first two are under implementation, while the implementation of the three remaining projects is stalled for want of funds:

- (i) "Inventory of environmentally damaged low productivity lands and their transformation" (implementing agencies – bodies on management of land resources and local executive bodies);
- (ii) "Improvement of the system of rational use of pastures, creation of sown pastures to prevent desertification processes in Kyzylorda, South Kazakhstan and Almaty oblasts" (implementing agencies – NGOs under assistance of government organizations and external donors). The project was transformed to several local projects, some of which are being implemented, while some others are still under preparation.
- (iii) "Land inventory and withdrawal of environmentally affected and low-yield arable lands from crop rotation",
- (iv) "Establishment of a Centre on land degradation in Akmola Oblast",
- (v) "Development and implementation of activities to improve arable lands fertility".

72. Drinking water supply is another area of high priority. The Government approved in January 2002 the Sector Program: Potable waters" for 2002-2010. The program aims at providing sustainable supply of potable water in required quantity and of guaranteed quality. The program accords particular priority to the Kyzylorda oblast, which is considered a zone of ecological disaster. The program envisages implementation in this oblast of the earlier planned activities on construction of 5 group water pipelines, 60 local water sluices to villages, not supplied with water as well as complex of repair and restoration works at existing water supply systems. In the regions with prevailing mineralized underground waters it is planned to construct desalination facilities. The complex of similar works is planned by expanding the program to all oblasts of the Republic. The Program activities will involve 3,700 rural populated areas at an estimated cost of 115.1 billion tenge. Water supply facilities of oblast, rayon and local significance are funded on the basis of targeted programs, approved by local bodies of state management or adopted by NGOs through the funds of local budgets, loans, direct external or domestic investments as well as funds of economic entities.

Box 2. Main projects on combating desertification in Kazakhstan

(funded by grant assistance from donor agencies)

1. UNDP/UNSO project KAZ98/X19 “Conservation of pasture ecosystems” with funding in amount of US\$90,000 (funding source – UNSO), which was implemented in 1999-2000 in the form of three independent parts:
 - The main project on restoration of pasture ecosystems in Bogen village of Kzylorda oblast, amount of funding – US\$ 50,000, funding source -UNSO. Within the project together with the local NGO activities were implemented on determining of season productivity of pastures on area of 15,000 ha. The maps with database in GIS system were compiled. For the first time in Kazakhstan manual for shepherds was prepared, containing recommendations on the balanced use of local natural feed fields. There were carried out forest melioration works on sand strengthening and cleaning of school area from barkhan on area of 3 ha. as well as activities on environmental education for schoolchildren and local people. Funds are required for further project development.
 - “Zhanartu” project of the Kazakhstan Farmers Association. Within the project UNSO funded its second stage in amount of US\$10,000 (total project funding – US\$165,920 including contribution of implementing agency – US\$110,327, GEF/SGP – US\$ 45,493).The main results of the two stages of the project: alfalfa seeds were laid by the local community of Zhangel'dy village of the South-Kazakhstan oblast on area of 20 ha, un milked part of the community's livestock was transferred to more remote pastures (5-6 km. from the village), 5 wells and irrigation canal were repaired and cleaned, community's needs in alfalfa seeds were met to create feed fields on irrigated lands, 8 training seminars were conducted. Funds are required for further project development.
 - The project of Water Users Association on water supply in Kazalinsk rayon of Kzylorda oblast, amount of funding – US\$20,000, source of funding – UNSO. Within the project local communities carried out construction and repair and restoration works on irrigation sluices and installation of collectors.
2. “Oasis” project of “Envirs” Environmental research Center. Amount of funding – US\$22,614, source of funding – GEF/SGP. The aim – conservation and restoration of biodiversity of saxaul and tamarisk ecosystems and combating desertification in the Aral Sea region, environmental education and public awareness. The main results: with participation of local NGOs and schoolchildren there were laid protection forest belt on area of 4 ha, 3 landscape and 3 protected oases in the outskirts of Aral'sk city of Kzylorda oblast, environmental study group for schoolchildren was set up.
3. The project KAZ/98/008 “Program of development and provision of humanitarian aid to the Aral Sea region “Potential-21” (financial support: UNDP – US\$195,000, Trust Fund “Capacity-21”, UNSO and International Fund on Salvation of the Aral Sea (IFSA) – US\$216,000, Kzylorda oblast administration – US\$182,000). The main aim of the project is strengthening of potential of local community and government structures. The project includes 3 main sectors: 1. Program of management of water resources (water supply and sewerage, support of Association of water users, training and seminars, development of remote populated areas – support from the Scandinavian Fund; 2. Economy restoration (micro-loans and small business development, revival of small entrepreneurship, industry restoration); 3. Program on social protection and health (support and coordination of UNFPA and UNICEF programs together with the Kzylorda local administration). Period of project implementation – 1999-2001. Number of local projects will be implemented under auspices of the program.
4. “Coniferous forests belt” project of the Public Association “Istok” (city of Semipalatinsk), supported by GEF/SGP (period of implementation – 2002-2003). The aim of the project- conservation and restoration of areas under unique pine forests of East-Kazakhstan oblast, damaged by forest fires. The expected result: improvement of forest protection on area of project implementation, restoration of burnt forests on area on 100 ha., activation of nature protection activity and enhancing of life support of local citizens.
5. The project on “Management of arid lands” to be implemented under support of the World Bank/GEF, Global mechanism, implementation site – Shet rayon of Karaganda oblast. The aim of the project – conservation, restoration and sustainable use of natural resources on the territory with difficult conditions for grain production as well as restoration of over 1 million ha. of weakened or abandoned arable lands. The project includes 4 components: a) Development of alternative land use, restoration of ecosystems for conservation of flora and fauna biodiversity; b) monitoring of the level of absorption of carbonic acid by the plants; c) building institutional base, strategy of public awareness and experience replication; d) project implementation group. The total project cost is US\$14.35 million (US\$ 7 million – GEF, US\$ 7.35 million – other donors, government). The World Bank grant in amount of US\$ 350,000 has been extended for project preparation.
6. In March 2002 the Agreement was ratified between the Republic of Kazakhstan and the IBRD on loan for implementation of the project on “Regulation of the Syrdaria river bed and preserving of the northern part of the Aral Sea (phase 1). The loan amount – US\$ 64.5 million, loan period – 2001-2006, co-financing of the Government of the Republic of Kazakhstan – US\$ 21.29 million The aim of the project – accident-free discharge of water for rated consumption along the Syrdaria river bed and improvement of social and economic and environmental situation in the region through preserving and stabilization of the Aral Sea. The project is envisaged to define at the preliminary stage technical and economic feasibility of increase of water inflow from the Syrdaria river to the Aral Sea, rehabilitation of hydrotechnical structures, dams and dykes. The project includes 3 stages: exploration works and feasibility study on low-level dam in the northern Aral Sea; research and feasibility study on infrastructure of the Syrdaria river and its delta; detailed project and tender activities.
7. Currently the joint projects are under preparation: “Modeling of desertification processes” (NATO, Uzbekistan, Turkmenistan, Kazakhstan), “Combating desertification in the Aral Sea region” (under support of GTZ it is expected to implement projects on combating desertification and poverty in the Aral Sea region and South Balkhash region),

8. "Experience sharing in combating desertification on local level" (support of Global Mechanism), "Regional technical assistance to the NAPCD implementation" (under support of the ADB).
 9. Program of rehabilitation of Semipalatinsk region. The aim of the Program: completion of evaluation of radio-ecological situation, temporary closing-down of polluted lands, environmental justification of economic use of the Field, support of water supply of population in the region. The Program includes 6 projects: a) Complete radiological evaluation of the Field; b) Environmental monitoring; c) Sustainable land use strategy; d) Evaluation of landscape and dynamics of biodiversity; e) Accessibility of good quality water; f) Clean-up of underground waters from aviation fuel pollution. The Program is at the stage of donors search, preparation and beginning of project implementation:
 - Funds of the NATO program "Science for peace" (US\$500,000) were allocated for the part of works within the project "Complete radiological evaluation of the Field". Dosimeter equipment has been brought.
 - The UK Department of international development has agreed to fund the project on "Sustainable land use strategy" (US\$750,000). At present the project terms are being discussed.
 - The projects "Environmental monitoring" and "Clean-up of underground waters from aviation fuel pollution" have been accepted for consideration by TACIS.
 - Ministry of Foreign Affairs and IAEA have prepared and appeal to donors on allocation of funds for completion of the Project on "Complete radiological evaluation of the Field".
 - Moreover, a new Program on "Institutional strengthening for sustainable development" (PIS/SD) for 2001-2004 has been adopted (under support of UNDP). One of the aims of the Program is being analysis, evaluation and support of procedures on implementation of conventions on environment, including the CCD.
- Source: Kazakhstan: Country Situation Paper

B. Assistance to Kazakhstan from external donor agencies.

The World Bank (ADB)

73. Since independence, Kazakhstan has received substantial assistance from external donors in a broad range of areas to support the transition to a market-based economy and minimize the decline in people's welfare due to the reform process. As of July 2001, the World Bank has approved US\$1,885 million for 22 projects in Kazakhstan, including five adjustment operations, two technical assistance loans, and fifteen investment loans. The most recent project, approved in June 2001, is the Syr-Darya Control and Northern Aral Sea Project (US\$64.5 million). The Bank's lending program was designed to support the government's efforts to build a market economy through balance of payments support for macroeconomic stabilization; structural reforms through enterprise restructuring, financial sector reforms, and privatization; protection of vulnerable groups through an effective social safety net; and sectoral reforms through operations in energy, agriculture, infrastructure, environment, institution building, and reinforcement of the government's implementation capacity. Box 3 shows the breakdown of WB lending by main sectors. The World Bank has also provided policy advice in the agriculture, financial, and energy sectors and has helped with petroleum legislation, taxation reform, and legal reform and training. The World Bank's advisory role in Kazakhstan is expected to increase in the future. In addition, six activities financed by the Bank's Institutional Development Fund (IDF) have been providing training and technical support for coordination and management of external assistance, strengthening the country's statistical system, improving the wheat sector, and organizing a study tour of industrial countries for government officials and managers of industrial enterprises. The most recently approved IDF grant aims to address issues of gender and violence.

**Box 3.
World Bank Lending to
Kazakhstan by Sector
since 1992 in US \$ million)**

Social Protection	341
Public Sector	262
Management	
Finance	242
Agriculture	160
Electric Power & energy	140
Transportation	140
Oil & Gas	123
Health, Nutrition	43
Population	
Water Supply & Sanitation	24
Environment	10
Total	1,885
<i>As of July 2001</i>	
<i>Disbursement (Sep. 2002) 1,340</i>	

74. The World Bank is actively supporting international efforts to reverse the severe environmental degradation of many areas of the country. The Bank played a major role in the development and implementation of projects under the National Environmental Action Plan and Aral Sea Basin Program (GEF). The Bank is also the implementing agency for the Kazakhstan: Drylands

Management Project (GEF) aimed at sustainable rangeland/pastureland management in the abandoned marginal cereal growing areas in the northern region of the country. As discussed in an earlier section, the project is an important initiative in testing innovative approaches to drylands management in Kazakhstan. The project, currently at appraisal stage, involves working closely with IFAD, Global Mechanism (GM), USDA, USAID, GL/CRSP (USAID). project. In addition, a number of other projects supportive of UNCCD objectives are planned for the next years, such as the Agricultural Support Services Project (ASSP) and drinking water supply projects to improve water supply and management in several cities and areas of the country.³¹

The Asian Development Bank (ADB)

75. From 1994, ADB has provided total lending of \$508 million (of which \$56 million was from ADF) and TA grants totaling \$21.2 million. Lending has been provided for, among others, foreign exchange support for imports of critical medicines and medical supplies and imports required by public and private enterprises; support for the transition to a market-based agriculture sector, including strengthening social and environmental protection; rehabilitation of priority national highways; rehabilitation and improved management of irrigation systems and agricultural land; rehabilitation and strengthening the management and provision of basic education; and reform of the pension system to a fully-funded, defined contribution system that is sustainable. In addition, TA has also supported public sector capacity building, including improving environmental management, investment planning capabilities and institutional reforms in various sectoral agencies. A major ongoing TA is assisting the Government to prepare a medium-term poverty reduction strategy that takes into account the multi-dimensional nature of poverty in Kazakhstan and involves a wide range of stakeholders to ensure greater ownership and success in its implementation.

76. ADB plans to extend US\$285 million in loans to Kazakhstan over the next two years, according to its Country Strategy and Program Update for 2003-2004. ADB's lending program for the country consists of four public sector projects with a strong pro-poor component, focused on education, agriculture and rural development, and transport and communications.

In terms of technical assistance, ADB helped the Government prepare its poverty reduction strategy and a study on the so-called company towns. Assessments on governance, the private sector, and environment are also under way. The technical assistance program for 2003–2004 will include eight projects totaling US\$4.2 million, tackling capacity building and developing strategies in ADB's focal interventions for the country. Box 3 provides details based on the CSP 2002-2004 update.

Box 3: ADB Loan & Technical Assistance Program (2002-2004)		
Sector	No of Projects	Total (OCR)
I. Lending Program		
		\$ ml.
Agriculture & Natural Resources	2	105
Social Infras Infrastructure	2	130
Transport & Communications	1	50
Total lending Total (planned)	5	285
II. Technical Assistance		
	No.	\$ ml.
Agriculture & Natural Resources	4	2.40
Social Infrastructure	7	3.55
Transport & Communications	4	2.30
Others	3	1.60
Total TA	18	9.85
Source: ADB: Kazakhstan Country Strategy & Program Update 2002-2004. Based on Appendix 4, Ta table A4.1& A4.2		

³¹ World Bank Group, *Country Brief, Kazakhstan*, Updated September 2001

77. The following two projects in the ADB pipeline may afford a window for including components/ activities that address directly or indirectly the land degradation issues:

- (i) Natural Resources- (\$ 50 million), Ministry of Agriculture. The project will support rehabilitation of irrigation and water resources infrastructure in the southern regions, including water storage facilities in the Mahataaral Rayon;
- (ii) Agricultural & Rural Development (\$ 55 million), Ministry of Agriculture. The project will provide integrated assistance to develop rural finance institutions and improve the access of the farms, rural enterprises, and the rural poor to financial services

United Nations Development Program (UNDP)

78. The UNDP has been assisting the Government of the RK with programs for institutional strengthening of the MNREP. In addition, the UNDP has been assisting the Government with addressing selected pressing human and environmental problems in Semipalatinsk, the Aral Sea Basin and the Caspian coastal oblasts. In May 2000 the Government and the UNDP adopted a Framework for cooperation on sustainable Development for 2000-2004. This is intended to facilitate “a more cohesive programme approach in our cooperation and away from the previous approach which relied on a series of individual and discrete projects.”³² Box 4 provides an overview of UNDP assistance to Kazakhstan within the framework for cooperation to promote sustainable development.

Box 4: UNDP/RK - Framework for Cooperation on Sustainable Development for 2000-2004		
The GEF Portfolio	Other Ongoing Projects	New Program on Institutional Strengthening
<ul style="list-style-type: none"> · Strategy to implement the Convention on Biodiversity · Conservation of migratory bird wetland habitat · Preservation of mountain agrobiodiversity · Wind power production in Kazakhstan · Energy efficiency of hot water and heat supply · Phasing out of ozone depleting substances · Conservation of biodiversity in the Altai-Sayan montane ecoregion (regional) · Transboundary environmental issues in the Caspian Environment Programme (regional) · GEF Small Grants Programme 	<ul style="list-style-type: none"> · Support for Government environmental strategy implementation · Aral Sea region development and humanitarian assistance programme · National action programme to combat desertification · Caspian oblasts development programme · Strategic support to the Semipalatinsk region · Kazakhstan natural disaster preparedness plan · Establishment of the Central Asian Regional Environment Centre (regional) · Aral Sea Basin Capacity Building for Sustainable Development (regional) 	<ul style="list-style-type: none"> · Analysis, evaluation and support for the implementation of international environmental conventions · Environmental administration review and strengthening · Removing barriers for intersectoral cooperation for sustainable development. Support for the development of Kazakhstan’s Agenda-21 · Support for regional cooperation in environmental management and sustainable development
<p>Source: Government of the Republic of Kazakhstan and UNDP: <i>Framework for Cooperation on Sustainable Development for 2000-2004</i>, Almaty, May 2000.</p>		

³² UNDP, *Framework for cooperation on sustainable Development for 2000-2004*, Almaty, May 2000.

EBRD, Islamic Development Bank, Germany (KfW) & USAID indirect support to UNCCD objectives

79. While 68% of investments in Kazakhstan by the European Bank for Reconstruction and Development (EBRD) are to the private sector, it has supported small and medium enterprise (SME) development, through financing (about \$1 18 million) and associated technical assistance from the European Union-TACIS program, which strengthened SME lending capabilities of participating commercial banks. EBRD is also pursuing strengthened linkages between SMEs and major investment project, in response to recent Government directives to increase domestic content in all large private investment undertakings. Other donors supporting SME development include the Islamic Development Bank (\$14 million in loans), Germany's KfW (\$12 million in loans) and GTZ (technical assistance for entrepreneur training to complement KfW loan), USAID technical assistance and credit lines from the Central Asian American Enterprise Fund. The small and medium sector development in areas affected by land degradation could contribute to the UNCCD objectives of alternative sources of income generation which would relieve pressure on fragile lands as the primary source of livelihood for rural populations. Box 5 provides an overview main sectors and main development partners supporting those sectors.

The Global Mechanism & SPA partners

80. The GM facilitated the establishment of a Strategic Partnership Agreement for the Implementation of the U. N. Convention to Combat Desertification and Drought (UNCCD) in the Central Asia Subregion (**SPA**). The SPA was entered into between the Global Mechanism (**GM**), the Asian Development Bank (**ADB**) through its technical assistance RETA 5941, the Canadian International Development Agency (**CIDA**) and the CCD Project of **GTZ** (Germany) on 10 October 2001 at the Fifth Conference of the Parties (COP5/UNCCD) in Geneva, Switzerland. Other donors- Switzerland, IFAD, ICARDA are anticipated to join the SPA framework. A number of activities have been initiated in the context of the SPA:

- The GM and ADB launched a Regional Technical Assistance Programme (**RETA 5941 for Combating Desertification in Asia**) in 2000 for assisting select Asian countries which include the five Central Asian Republics (CARs), for assessing the enabling environment governing the implementation of the UNCCD and for enhancing National Action Programmes (NAPs) and identifying Global Environment Facility (GEF) eligible activities.
- The GM through its **Community Exchange and Training Programme (CETP)** developed in partnership with GTZ, a project to support local communities and NGOs/CBOs by establishing a cadre of "community mobilisers/trainers". The project aims at enhancing and developing the capacities of local stakeholders so that they are better prepared to implement projects.
- The CCD Project of GTZ has been supporting the elaboration of the Subregional Action Programme in Central Asia (SRAP-CD), in addition to providing support for the implementation of NAPs and capacity building of NGOs and CBOs. GTZ committed to support the implementation of the SRAP-CD priorities through the development of pilot projects. The Pilot-Project in Kazakhstan aims at improvement of the living conditions of the local population by implementation of a model of sustainable land use during increasing desertification conditions in the Balkhash-Ili region
- Likewise, CIDA through its **South Europe/Central Asia Climate Change Support Fund** intends to support selected SRAP-CD priorities through the development of pilot projects aimed at illustrating the tight coupling of land degradation with climate change.
- The GM has allocated resources for supporting SRAP-CD priority activities. The GM's resources will develop complementary activities to the pilot projects of CIDA's Climate

Change Support Fund and the CCD Project of GTZ's work in Central Asia. This will ensure the creation of holistic programme interventions for Central Asia.

- ICARDA – Regional Office has initiated on farm trials and field demonstration of legume crops to promote seed multiplication of promising varieties. Seeds were delivered to Research Institute of Green Farming, Kazakhstan for planting in May. Under another regional program of ICARDA, a new barley variety for Azerbaijan is being evaluated for cold tolerance in Krasniy Vodopad Breeding Station, Kazakhstan.³³

C. Support for sub-regional/ regional³⁴ programs to combat land degradation

81. Kazakhstan participates in a number of regional cooperation mechanisms. Land degradation requires regional cooperation to address some of the root cause problems which cut across national boundaries and to work together on the basis of coordinated prevention and control strategies. This is best illustrated by the transboundary water management issues of the Aral Sea Basin, as also by the issues associated with the water sharing arrangements from the common river systems. The five countries have given importance to regional cooperation and promotion of sustainable development policies and mechanisms. This importance has resulted in a series of regional declarations and agreements. These include: Almaty (1992, 1997), Kyzyl-Orda, Issyk Kul, Nukus, Cholpon-Ata and Ashgabad declarations. There are a number of other agreements in the areas of economic cooperation and trade, social development, water and energy sharing, and others related to sustainable development of the region.³⁵ The following regional frameworks already in place are particularly relevant in the context of the need for regional cooperation to combat desertification/land degradation:

- (i) The International Fund for Aral Sea (IFAS) is one of the existing regional mechanisms. IFAS has the mandate to set regional policy, and provide inter-sectoral coordination. The Presidents of CA countries are IFAS members. The Executive Committee of IFAS (EC-IFAS) is the secretariat responsible for implementation of the IFAS decisions. IFAS has two divisions:
- (ii) The Interstate Committee for Water Coordination (ICWC) with its two water management authorities for Amu Darya and Syr Darya rivers aimed at the cooperation in the area of water resources.³⁶ ICWC is supported by the Scientific Information Center (SIC); and
- (iii) The Interstate Sustainable Development Commission (ISDC) established to ensure that economic, social, and environmental factors are given equal weighting in development planning decisions. ISDC is also supported by the Scientific Information Center (SIC).

82. A number of donor agencies have provided technical assistance to strengthen regional cooperation in areas of relevance to UNCCD. For instance, the World Bank, GEF, UNDP, TACIS and GM are involved in the Aral Sea Basin Program. The ADB has provided RETA for the Promotion of

³³ CAC News, January-March 2002.

³⁴ In the context of this paper the term Regional refers to the five Central Asian countries. In the context of GM operations, the term Regional Action Program (RAP) refers to the program relating to the Asia Region, while the Sub-regional Action Program (SRAP/CD) relates specifically to the five Central Asian countries.

³⁵ ADB, UNDP, UNEP: *Concept Paper on Regional Cooperation in Central Asia*, Draft 9 April, 2002.

³⁶ It may be noted here that only Kazakhstan has ratified the UN Convention "On Protection and Use of Transboundary Water Flows and International Lakes". Other four countries perhaps have reservations about undertaking certain international commitments in this regard.

Renewable Energy, Energy Efficiency and Greenhouse Gas Abatement Projects (PREGA). ADB has also provided RETAs to support the preparation of the Regional Environment Action Plan (REAP) for Central Asia, and the Regional Strategy and Action Plan for Sustainable Mountain Area Development in Central Asia. USAID has under implementation a Central Asia Natural Resources Management Project (NRMP) to promote greater regional cooperation in the management of Central Asia's water, energy and land resources. UNDP Regional Aral Sea Basin Capacity Building Project has played a key role in the establishment and promotion of regional cooperation under the ISDC umbrella. The project has provided the resources necessary for ISDC activities. This Project has now been completed and leaves a vacuum in terms of support for the ISDC. The Swiss have been assisting the CARs through a "Central Asian Mountain Partnership (CAMP) – a long term programme of the Swiss Agency for Development and Cooperation (SDC) implemented by the Center for Development and Environment (CDE) of the University of Berne. There are number of other donor agencies involved with supporting various regional cooperation initiatives.

The Global Environmental Facility (GEF)

83. **GEF** has so far in its portfolio (see Annex 5) the following three regional projects in Central Asia.³⁷

- Water & Environment in the Aral Sea Basin (ASBP), approved in May 1997, and being implemented by the World Bank - GEF financing \$ 12 million out of total costs of \$ 71.5 million.
- Central Asia Transboundary Biodiversity Project, approved in November 1997, and being implemented by the World Bank, in Kyrgyzstan, Kazakhstan and Uzbekistan. GEF financing \$ 10.5 million out of total of \$ 14 million.
- Addressing Transboundary Environmental Issues in the Caspian Environment Program, approved in November 1998, and implemented by UNDP/UNEP/World Bank in Azerbaijan, Kazakhstan, Turkmenistan, Iran, and Russia. GEF financing \$ 8.34 million out of total project costs of \$ 18.32 million. Project endorsed by the GEF CEO in Feb. 2000.
- In addition and directly related to land degradation, the GEF pipeline³⁸ has one project in Kazakhstan - Dryland Management Project, with the World Bank (with preparatory financing from GEF PDF B (\$ 350 000) + GM and IFAD (\$ 200 000) as the implementing agency. The overall objective of the project is the conservation, rehabilitation and sustainable utilization of natural resources in the Shetsky Rayon of Kazakhstan. The project is conceived as a pilot, which could serve as a model for wider replication. The total project cost is estimated at US\$10.28. GEF contribution: US\$5.01 million; Government of Kazakhstan: US\$2.7 million; Beneficiaries: US\$1.8 million; Other donors include IFAD, and Global Mechanism.

84. *To conclude, Kazakhstan NAP and the Government's agriculture sector policies do highlight a number of priority areas supportive of UNCCD implementation. However, only a few of them have been projectized to access external financing. Implementation of some of its projects initiated for financing with domestic resources has been stalled due to budgetary constraints. A number of multilateral and bilateral aid programs do support activities which are indirectly supportive of UNCCD objectives, but **direct and conscious support** to UNCCD implementation through NAP framework is yet to materialize.*

³⁷ GEF has provided assistance to Kazakhstan for 3 projects – phasing out ozone depleting substances & wind power market development initiative; conservation of migratory bird wetland habitat. Besides, small grants enabling activity assistance has been provided.

³⁸ None of the other projects in the GEF pipeline relate to land degradation. A small unit in the UNDP, Uzbekistan, headed by Mr. Mark Anstey, UNDP/GEF Advisor is exploring "innovative" ideas to build up proposals for inclusion in the GEF pipeline.

Box 5: Development Partners' support to Kazakhstan							
Sector/Sub-Sector	World Bank Group	IMF	ADB	EBRD/ IsDB	UN System	Bilateral Donors	EU TACIS
Macroeconomic Policy Reforms	X	X	X				
Financial Sector	X	X	X	EBRD		USAID	X
Legal Framework	X					GERMANY USAID	
Governance	X		X		UNDP		X
Agriculture & Rural Development	X		X		UNDP FAO	Germany UK	X
Irrigation	X					Germany Japan (JICA)	
Water	X				UNDP	France Germany Kuwait Fund	
Environment	X (GEF)				UNDP	USAID	X
Small & Medium Enterprises/ Private Sector Development	X		X	IsDB	UNDP	Germany	X
Industry	X			EBRD		Germany	
Transport/Telecommunications	X		X	IsDB		Germany Japan Canada	X
Oil & Gas	X			EBRD	UNDP	Canada	X
Power	X		X	EBRD		USAID Canada	
Social Protection	X		X		UNDP	USAID	
Health	X				UNDP	Germany UK	X
Education			X			USAID Germany UK	X

Source: The World Bank: Country Assistance Strategy, January 2001 (Annex 18); ADB: Country Assistance Plan (2001-2003)

VI. Issues & Opportunities in implementing UNCCD in Kazakhstan

A. Obligations to support UNCCD/NAP under the Convention

85. This Part pulls together the main conclusions from the extensive review and discussion on the dimensions, consequences and costs of desertification in Kazakhstan, the progress and problems of the NAP/CD process, the main policy issues constraining effective realization of the UNCCD objective, and the main programs at national and regional levels and a broad overview of the extent of the assistance being provided by the donor community. The conclusions are organized in the form of issues that need particular focus and the opportunities which exist to further enhance the progress in effective implementation of the UNCCD at the national and regional levels. The conclusions have been framed against the overarching perspective of the cross-cutting and participatory approach and the obligations of both the developing and developed member countries set out in the Convention to Combat Desertification (CCD) - see Box 6. The Convention obligates the affected countries not only to prepare NAPs but also

take effective steps, including provision of appropriate budgetary resources, for the implementation of the activities and projects in the NAP to combat desertification.

Conclusion no. 1 *It is observed that implementation of a number of programs initiated in Kazakhstan within its NAP framework is held up for want of financial resources. This situation needs to be reviewed at senior levels by the Government to make necessary financing from domestic resources available for the priority programs which have already been approved for implementation. As for the development partners, a number of multilateral and bilateral aid programs do support activities which are indirectly supportive of UNCCD objectives, but **direct and conscious support** to UNCCD implementation through NAP framework is yet to materialize.*

Box 6: 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 subregional 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.

B. Improving the understanding of the root causes of land degradation

86. The two main priority areas for research or study emphasized in the NAP are:

- Development of the main principles on environmental zoning of the territory of Kazakhstan. The aim is to identify and estimate (by degree of desertification) ecological and geographical regions, in order to plan the rational use of natural resources and devise a system of environmental protection on the basis of the Territorial comprehensive schemes of nature protection (TERCSNP). At present such ecological and economic zoning has been carried out for the Kazakhstan part of the Aral and Caspian regions. This would require research on soils and geo-botanical and hydrological factors for the purpose of defining areas affected by desertification and to what degree.
- Organization of the system of monitoring of desertification processes. Due to lack of required funding, such a system has not been developed, although some of its elements (system of monitoring of land resources, environment and climate through hydro-meteorological surveys) are functioning and allow to certain extent periodical estimates of meteorological data. Efforts are underway, subject to availability of funds, to develop a unified and comprehensive state system of environmental monitoring. A related research area is development and application of space technology for assessment and monitoring of desertification.

87. There is also need to establish a differentiation with the research on deserts as natural phenomena, which are largely irreversible. Research in this area which has preoccupied a good part of research effort in the Soviet era, though quite valid, does not quite tie up the emphasis of the CCD on land degradation.³⁹ Land degradation is a complex phenomenon. Conditions for natural soil degradation are created by major climatic characteristics, mechanic composition of covering deposits, primary salinization of soil-forming rocks and bedrocks. Anthropogenic factors of land degradation include salinization, swamping, overgrazing, irrigation erosion, felling of shrub and woody vegetation, technogenic factors etc. The latter type of problems, caused by the interaction of human activities with natural phenomena, can be prevented or corrected through appropriate interventions. Priority attention should be accorded to community-based and location-specific interventions aimed at preventing or correcting land degradation through participatory efforts as part of local area development. *Such local area development projects (LADPs) need to be identified with active participation of local communities.*

88. There is also a multi-sectoral dimension of research which was brought out by the Government's 10-Year Progress Report on Agenda 21 Implementation⁴⁰ in Kazakhstan, prepared for the recent Rio+10 Conference. It mentions the following main barrier in the area of environmental research: "There is an absence of research directed at identifying points of integration among economic, social and environmental sectors in the context of the goal of sustainable development".

Conclusion no. 2: *In an environment of funding constraints there is a clear need to establish priorities in the current research agenda being pursued by the scientific and technical research in*

³⁹ In the Convention to Combat Desertification, by "desertification" the process is meant of land degradation in arid, semi-arid and dry sub humid areas as a result of certain factors including climatic changes and human activity. "Land degradation" means reduction or loss of biological or economic productivity of arable lands or capacity of pastures, forests and forest blocks under the impact of natural or anthropogenic factors.

⁴⁰ Republic of Kazakhstan *10-Year Progress Report on Agenda 21 Implementation in Kazakhstan, 2002*, a report prepared under coordination of the State Inter-agency Commission as preparation for the Rio+10 World Conference in Johannesburg, with technical and financial support from the UNDP.

Kazakhstan. The key priority areas to improve the understanding of the root causes and how to address them are:

- *To complete the ongoing work of ecological and economic zoning.*
- *To design a comprehensive system of monitoring of desertification/land degradation processes.*
- *To identify community- based local area development (LADP) initiatives through a participatory action research approach.*
- *To initiate research directed at identifying points of integration among economic, social and environmental sectors in the context of the goal of sustainable development*
- *Considering the rich spectrum of problem areas in the overlapping fields of environment, ecology, desertification, land degradation, biodiversity, and climate, it would be useful to constitute a multi-disciplinary task force to take stock of what research is being carried out on issues of relevance to desertification and land degradation and where. Based on this, priorities need to be established with a higher weightage to applied research linked to the objectives and approach of the UNCCD. This exercise at priority setting would be a good candidate for TA support by interested donor agencies.*

C. Institutional factors constraining implementation of NAP

89. The Kazakhstan NAP s of 1997 and the draft NAP -2002 indicate that knowledge about the desertification and land degradation processes and problems at the scientific and technical levels is not a major constraint, and there is a strong cadre of scientists and technicians who have considerable experience on how to tackle them at the technical level. The overwhelming problems are in the institutional area – weaknesses of institutional structures, inadequate staff, weak management and coordination capacity and absence of mechanisms and skills in areas such as project development and management of cross-sectoral approaches to implementation. Above all, lack of funds is an overarching constraint which does not provide much elbow room for sustained action. Both UNDP and ADB have supported the capacity building and administrative reforms of the Ministry of Natural Resources and Environmental Protection, but there are still many areas which need targeted capacity development and skill up-gradation support. Obviously, *there is a case for a thorough and systemic “needs assessment” exercise to identify such needs and gaps. Perhaps, this exercise could be conducted within the framework of the UNDP “Institutional Strengthening for Sustainable Development” project, with some additional funding support from interested donors.*

90. As discussed in this report, draft NAP-2002 has made a few proposals on institutional restructuring to ensure effective implementation of its Action Plan (see Annex 4). The Government has these proposals under its consideration. Early and positive decisions on these proposals, summarized below, would strengthen the National Focal Point’s capability to move forward with translating the Plan of Action into concrete action on the ground. The main proposals are:

- *Interdepartmental Commission to Combat Desertification (IDCCD), and/or a combined coordinating mechanism for the three Rio Conventions, to be called “United Interdepartmental Coordination Commission UIDC)” to be responsible for carrying out commitments of international environmental treaties and agreements (UIDC). The latter is conceived as a body at the political level to ensure interdepartmental management.*
- *Center to Combat Desertification (CCD) that will function as an office of interdepartmental and interdisciplinary technical management and coordination of desertification measurers in the Republic of Kazakhstan.*

- Special executive agencies in charge of programs and projects to provide technical project management support at the sectoral level and local Project implementation units (PIU) to be established within the CCD structure.
- *Oblast Committees to combat desertification* attached to oblast akims' staff involving NGOs, large-scale nature users and oblast-authorized services.

Conclusion no. 3. *Institutional constraints to implementation of UNCCD comprise (i) weak capacity to identify, design, implement or manage NAP and related projects and programs to combat land degradation, and (ii) problems of institutional structures, interface, coordination and outreach. There is need for targeted capacity development and skill up-gradation support. On the first count, there is a case for a thorough and systemic "needs assessment" exercise to identify capacity needs and skill gaps in the institutional units involved in UNCCD/NAP activities or processes from the standpoint of accelerating UNCCD implementation. On the second count, the proposals contained in the draft NAP-2002 for strengthening the institutional framework for UNCCD coordination and outreach merit serious consideration of the Government (also see conclusion no. 5).*

D. The policy and legislation related constraints

91. First about legislation. Kazakhstan, like the rest of Central Asia, has no dearth of environmental legislation, which covers virtually all important segments of the environmental spectrum. Only it is either too generic to be un-enforceable or too loosely framed as to make compliance difficult in the absence of authoritative interpretation, or detailed byelaws or regulations. The Government is fully seized of this problem and has taken action to plug the loopholes. Third, the policy of Government is evolving fast and legislation has a problem catching up with administrative decisions. Fourth, there are also issues of lax enforcement because of bureaucratic procedures or practices. As reported earlier, the NAP has some good suggestions to approve the situation. These are:

- Systematization of all existing standard and legal documents;
- Identification of measures on effective implementation of environmental legislation documents;
- Harmonization of environmental legislation with correspondent legislation of the main industrialized countries of the world taking into account environmental principles approved by world community including on combating desertification.
- Relevant 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.

92. At the policy level, The Government has been remarkably successful in providing an environment of political and macroeconomic stability, which has encouraged increased private sector investment. However, much of this investment has been skewed in favor of extractive industries, such as oil and gas, where as more investment is needed in manufacturing and agriculture to diversify the production and export base of the economy. As regards sectoral policies and associated investments, the focus of major donors is on water resource management, rural privatization and development of advisory and financial services to rural enterprises.

93. The policies in the agriculture sector have been slow to take shape. As indicated in this report, a number of measures have been taken in 2002 to revive the sluggish agricultural production. Land degradation has been a major contributor to the drop in productivity, withdrawal of arable lands from production in irrigated and rainfed areas and deterioration of pastures. However, these issues have not been directly addressed in the recent policies. The recent policy focus has been on farm restructuring and

improved support services to revive agricultural production. These policies rely on direct Government support through subsidized public services and directed micro-credit, which may not be sustainable in the long run. But policy makers are aware of these risks and the measures taken are consistent with their gradualist approach to policy reforms. However, two major challenges persist: increasing unemployment and uneven economic growth persist. *The agricultural policies and investments need to focus more directly on dryland agriculture, land degradation, quality of water for irrigation and safe drinking water supply, and employment generation.*

Conclusion no. 4. *The main focus of macroeconomic policy is on structural reform issues, with linkage with poverty reduction being through stimulating the process of broad-based economic growth. Poverty reduction objectives are also supported through sectoral policies for revival of agriculture, employment generation, programs for social sector development and social safety-net support. The policy making organs in the Government as well as the development partners need to be sensitized to mainstream CCD objectives and response to land degradation concerns explicitly into the policies and programs of key sectors. Part of the reason for land degradation concerns being less evident in the policy framework is the “stand alone” nature of the NAP process. Even the Kazakhstan’s draft 2002 NAP is weak in policy content. This raises the issue of mainstreaming to a level of urgency. Action is needed to address this concern through issues of land degradation being considered in the broader, cross-sectoral context. Some of the key action areas to address issues of mainstreaming and an integrated cross-cutting approach to the implementation of UNCCD are discussed in Section E.*

E. Constraints to effective program development and implementation

94. This section looks at two main issue areas relating to overcoming the constraints affecting program development and implementation of the UNCCD: (i) how to overcome the constraints to the mainstreaming of NAP as the main instrument to implement the Convention; and (ii) how to improve the involvement of donor community in the implementation of the UNCCD.

95. The NAP is thin on policy and program content. The draft NAP-2002 to combat desertification has a reasonably comprehensive and well classified list of programs and activities requiring grant financing (see Annex 3). However, like the 1997 NAP, it does not provide a clear policy thrust as to how to mainstream desertification/land degradation into the broader policy framework. As a consequence, land degradation issues remain somewhat on the fringes of central policy concerns. As regards the program content of the NAP, it does not include any investment projects to prevent or control land degradation. Even the projects listed for grant financing, unless already picked up by donors, perhaps do not have back up documentation in the form of elaborate project concept or inception briefs to make potential donors make an informed judgment to meet their basic program entry or selection requirements. This problem, of course, is not unique to Kazakhstan. Yet this is a crucial gap in efforts to mobilize external resources. There appears to be urgent need to strengthen capacity in the concerned agencies to prepare project concepts and develop them into more detailed project documents. Also the Focal Institution and other concerned agencies have limited translation facilities from Russian into English to develop a program portfolio for submission to the donor agency programming missions.

96. Reliance on “stand alone” projects or activities aimed at combating desertification, rather than incorporating these activities as components of cross-sectoral programs of ministries, such as Agriculture, Livestock, Water Resources or Forestry. Issues such as soil erosion, salinization, water logging, wind erosion, or loss vegetative cover need more comprehensive and cross-cutting approach requiring involvement of a number of agencies. Most agencies, however, work as enclaves concerned with their own mandates and budgets. This causes different ministries working in isolation and at times at cross

purposes. There is need to provide capacity building support to enable the NFP to leverage other agencies' programs to address land degradation concerns.

97. Influencing programs/projects in the pipelines of IFIs to reflect land degradation concerns. In the above context, the National Focal Point/CD (NFP) should be supported with trained staff who can stay in touch with agencies such as Agriculture and Water Resources to see that projects already in the pipeline of multilateral agencies such as the ADB or the World Bank incorporate in their design components which specifically address land degradation or dryland management concerns. Administrative processes should be in place to ensure that NFP gets a chance to review agriculture sector projects of other agencies to provide suggestions to incorporate activities of relevance to controlling land degradation as an integral part of project design.

98. Mechanics for integration of NAP into the national development and poverty reduction strategies. National development and poverty reduction frameworks need to take account of land degradation as an important determinant of poverty and loss of productivity. This is however recognized mainly as a rhetorical statement. There is need to provide a reasoned conceptual underpinning to the interface between land degradation and the goals of poverty reduction and economic growth in the specific country context. Secondly, there is need to develop mechanisms which would ensure that land degradation related concerns get adequately reflected both during the deliberative and formulation processes as well as in terms of contents of the development and poverty reduction strategies. This is an area where technical assistance to the National Focal Point/CD would be helpful.

99. Develop administrative regulations for integrating NAP/CD into the national planning, budgetary and PIP processes. This would involve creating a distinct budgetary cost center in accordance with domestic budgetary process. It may also require the proposed Center to Combat Desertification, headed by the National Focal Point/CD, being recognized as a distinct entity, and not just as an informal inter-agency group, within the Ministry of Environmental Protection.

100. Develop a framework to delineate the areas of convergence and common ground between the Rio Conventions and the large number of action plans which exist in Kazakhstan, each seeking priority attention. For instance, Kazakhstan, like some other CARS, has the following Action Plans, besides NAP/CD, in the environment sector:⁴¹

- The National Action Plan on Environmental Protection for Sustainable Development (NEAP/SD-1998)
- The National Strategy and Action Plan for the Preservation and Balance Use of the Biological Diversity (1999)
- The National Program for the Seizer of the Ozone Destructive Substances (2000).
- The National Action Plan on Environment Hygiene in the Republic of Kazakhstan (NAPEH), (approved by the Government in June 2000).

101. Existence of multiplicity of Action Plans and Frameworks leads to duplication, causes confusion and stretches limited human and financial capacity to manage and coordinate diverse activities. It would be useful to work out a framework based on synergies between these environment related concerns as a kind of common interest forum for mutual collaboration and to lobby for say in policy decision making and in allocation of resources. This could be done under the aegis of the State Commission on Sustainable Development, or some other appropriate umbrella public sector institution

⁴¹ CAREC/Interstate Commission on Sustainable Development of Central Asia, *Central Asia: Progress Review in Implementing of the Agenda 21*, Almaty, 2002.

102. Developing an investment platform of priority projects and programs to combat desertification/land degradation. The international development partners are actively involved in cooperating with the Government to support its priority programs in a number of sectors and in areas which are of relevance to CCD objectives. The challenge is to orient both the government and the international development partners to incorporate issues and responses to combat desertification/ land degradation into policies and programs from the early concept or design stage. *In this context, there is need to look beyond the conventional projects to carve out a program approach to address the land degradation issues through a holistic rural development program. There are also opportunities in the area of carbon sequestration trading options under the Kyoto Protocol which can be worked into joint collaborative program of UNCCD and UNFCCC.*⁴² *An investment platform would become the catalyst to mobilize resources and technical support from the interested donor agencies at the level of policy, investment programs and technical assistance and advisory support. This document would complement the NAP and serve as a rolling action plan to implement the CCD/NAP to facilitate a focused approach to enlist the support domestic stakeholders, donors and NGOs.*

F. The possibilities of greater GEF involvement in land degradation

103. At present there is only limited GEF active project portfolio in Kazakhstan (see Annex 5). However, a new window of opportunity has opened with the amendment to the 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.” The Elements of a GEF Operational Program for the Prevention and Control of Desertification and Deforestation through Sustainable Land Management,⁴³ outlines the main strategic considerations and operational principles that would guide the development of GEF-eligible activities. However, the Government of Kazakhstan would need to identify suitable GEF-able projects (both national and regional) in order to avail of GEF assistance.

Conclusion no. 5: *The challenge of effective implementation of the UNCCD/NAP is to undertake certain concrete actions to overcome the constraints affecting the implementation process. These actions would be:*

- (a) NAP should not be treated as a ‘stand alone’ document, but be mainstreamed into the national policy making process. For this purpose, NAP’s policy and programmatic content should be strengthened. The programs should cover not just the Focal Institution’s priorities but be more inclusive to include programs and projects of other agencies which address land degradation issues and concerns. Such programs should have Government ownership and some form of financial commitment. Identification of such programs, particularly of pilot projects, should be the outcome of a participatory process involving local communities and community-based initiatives.*
- (b) There appears to be urgent need to strengthen capacity in the concerned agencies to prepare project concepts and develop them into more detailed project documents. Also the Focal Institution and other concerned agencies have limited translation facilities from Russian into English to develop a program portfolio for submission to the donor agency programming missions.*
- (c) Administrative mechanisms should be evolved for integration of NAP into the national development and poverty reduction strategies.*

⁴² The Unit Policy Studies of the Energy research Centre of the Netherlands ECN has published a new report which sheds light on the project characteristics of the first traceable 100 million tonnes of CO₂ equivalents intended for contracting under the project-based mechanisms of the Kyoto Protocol.

⁴³ See documentation for the 20th Session of the GEF Council.

Appropriate administrative regulations should be adopted for integrating NAP/CD into the national planning, budgetary and PIP processes.

- (d) The areas of convergence and common ground between the NAP/CD and the action plans of other Rio Conventions and the National Environmental Action Plan should be explored.*
- (e) An investment platform of priority projects and programs to combat desertification/land degradation would be useful to mobilize resources for the CCD implementation. This document would complement the NAP and serve as a rolling action plan to facilitate a focused approach to catalyze support of the domestic stakeholders, NGOs, and donors.*
- (f) A new window of opportunity has opened with the designation of "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. To avail of this, the Government would need to identify suitable projects which meet the GEF selection criteria.*

G. Forging strategic partnership among donors and domestic stakeholders

104. The Strategic Partnership Agreement (SPA) between the GM, ADB, Germany and Canada, with the anticipated joining of Switzerland, IFAD and ICARDA offers opportunities to enhance the implementation of NAPs, and SRAP and promote regional cooperation among CARS. Vigorous follow up of the outcomes of current RETA would provide the concrete instruments to forge strategic partnerships among donors and domestic stakeholders and also provide a common platform for the mobilization of resources for UNCCD in Central Asia.

KAZAKHSTAN: IACD - Economic & Social Indicators

ECONOMIC INDICATORS

ITEM	1996	1997	1998	1999	2000	2001
A. Income And Growth						
1. GDP per Capita (\$, current)	1,298.5	1,394.0	1,409.9	1,063.2	1,224.4	1,263.6
2. GDP Growth (% , in constant prices)	0.5	1.7	(1.9)	2.7	9.6	7.0
a. Agriculture and Forestry	(5.0)	1.9	(18.9)	28.0	(3.3)	1.0
b. Industry and Construction	(3.5)	5.0	6.0	4.6	14.6	8.0
c. Services	3.2	0.9	(0.4)	(1.7)	7.9	2.1
B. Savings and Investment						
	(percent of GDP)					
1. Gross Domestic Investment	16.1	15.6	14.3	17.9	17.1	17.3
2. Gross Domestic Saving	19.8	17.1	14.9	16.9	20.8	20.3
C. Money and Inflation						
	(annual percent change)					
1. Consumer Prices (annual average)	39.1	17.5	7.1	8.3	13.2	6.9
2. Consumer Prices (end of period)	28.7	11.3	1.9	17.8	9.8	5.5
3. Broad Money (M2)	13.8	29.2	(13.3)	84.3	45.9	21.3
D. Government Finance						
	(percent of GDP)					
1. Revenue (including grants)	17.4	16.8	17.9	21.1	23.1	23.1
2. Expenditure (including net lending)	22.4	31.2	25.8	24.6	23.0	25.2
3. Overall Surplus/Deficit (-) ^a	(5.0)	(14.4)	(4.2)	(3.5)	0.1	(2.1)
E. Balance of Payments						
1. Merchandise Trade Balance (% of GDP)	(1.6)	(1.2)	(3.4)	(2.2)	0.1	8.9
2. Current Account Balance (% of GDP)	(3.6)	(3.6)	(5.6)	(1.1)	5.9	3.3
3. Export (\$) Growth (%)	21.8	9.6	(16.3)	2.0	52.6	1.3
4. Import (\$) Growth (%)	23.0	8.3	(8.4)	(15.4)	(10.5)	50.2
F. External Payments Indicators						
1. Gross Official Reserves (\$ million, end of period)	1,980.0	2,244.0	1,900.0	2,003.0	2,096.0	2,337.0
months of imports	3.1	3.2	4.1	3.7	3.3	3.4
2. External Public Debt Service (% of exports)	17.6	27.5	26.3	27.3	24.6	17.3
3. External Public Debt (% of GDP)	20.0	26.4	33.8	24.1	21.8	20.0
G. Memorandum Items						
GDP (current prices, T billion)	1,415.7	1,672.1	1,733.2	1,893.0	2,596.0	2,875.0
Exchange Rate (T per \$, annual average)		75.4	78.3	119.5	142.3	152.7
Population (million)	16.2	15.9	15.7	14.9	14.9	14.9

GDP= gross domestic product.

^a Figures in 1996-1997 do not include the extra budgetary funds.

Sources: The authorities of Kazakhstan and staff estimates

SOCIAL AND ENVIRONMENT INDICATORS

Item	1985	1990	Latest Year
Population Indicators			
Total Population (million)	15.7	16.4	14.9 (1999)
Rural Population (%)	44.2	43.2	44.3 (1999)
Annual Population Growth Rate (% change)	1.2	-0.5	-0.6 (1999)
Social Indicators			
Total Fertility Rate (births per woman)	3.0	3.0	1.9 (1997)
Maternal Mortality Rate (per hundred thousand live births)	66.6 (1987)	67.2 (1991)	49.6 (1999)
Infant Mortality Rate (below 1 year; per thousand live births)	30.1	26.3	20.7 (1999)
Life Expectancy at Birth (years)	67.7	68.6	65.7 (1999)
Female	73.1 (1987)	73.1 (1991)	71.0 (1999)
Male	63.9 (1987)	63.8 (1991)	60.3 (1999)
Adult Literacy (%)	99.0	97.5 (1989)	99.5 (1999)
School Enrollment for All Levels (% of children aged 6-24)	-	80.0 (1991)	79.0 (1999)
Population Below Poverty Line (%)	-	25.0 (1992)	31.8 (2000)
Income Ratio of highest 10% to Lowest 10%	-	-	11.3 (1998)
Rural Households with Access to Safe Water (%)	92.0	30.0	65.0 (1997)
Rural Households with Access to Sanitation (%)	90.0	19.0	61.0 (1993)
Public Education Expenditure as % of GDP	6.6	6.6	3.3 (2000)
Public Health Expenditure as % of GDP	3.1	3.3	2.1 (2000)
Social Security Expenditure as % of GDP	-	0.8 (1994)	6.6 (2000)
Human Development Index	-	0.802	0.742 (1999)
Human Development Ranking	-	54	75 (1999)
Environmental Indicators			
Forestry			
Total Forest Area (thousand hectares)	-	9,540.0	26,534.0 (1999)
Biodiversity			
Nationally Protected Area			
Area (thousand hectares)	-	-	7,337.0 (1997)
Number	-	-	70.0 (1997)
As % of Land Area	-	-	2.7 (1997)
Wetlands of International Importance			
Area (thousand hectares)	-	-	609.0 (1997)
Number	-	-	2.0 (1997)
Land Use (thousand hectares)			
Cropland	-	-	11,392.0 (1999)
Permanent Pasture	-	-	92,404.0 (1998)
Global Environmental Problems			
Total CO ₂ Emissions (thousand metric tons)	-	-	379.7 (1999)
Per capita CO ₂ Emissions (metric tons)	-	-	25.5 (1999)

- = not available; CO₂= carbon dioxide; GDP= gross domestic product.

Sources: National Statistical Agency, UNDP: National Human Development Report on Kazakhstan 2000

KAZAKHSTAN: IACD

Poverty Indicators

Table 1. GDP Growth Rates, Poverty Incidence,* and Inequality Indices for Kazakhstan 1996-2001

Year	Real GDP growth rate %	Headcount %	Poverty Gap %	Poverty Depth %	Severity of Poverty %	Gini coefficient	Ratio of 10% richest to 10% poorest
1996	0.5	34.6	11.4	32.9	5.2	0.319	
1997	1.7	38.3	12.1	31.6	3.1	0.338	10.2
1998	-1.9	39.0	12.8	32.8	3.8	0.347	11.3
1999	2.7	34.5	13.7	39.7	5.5	0.340	11.0
2000	9.5	31.8	10.3	32.4	4.0	0.343	11.9
3 rd Q, 2001	12.0	29.7	9.8	n.a.	4.4	0.354	10.2

* Poverty incidence is defined as percent of households whose expenditures fall below the subsistence minimum.

n.a.- not available

Source: National Agency for Statistics. 2001 are preliminary data for the first 9 months.

Table 2. Non-income indicators for Kazakhstan, 1996-2000

Non-income indicators	Year				
	1996	1997	1998	1999	2000
Human Development Index	.732	.738	.743	.755	
Human Poverty Index			31.0	28.1	
Education Indices					
• Literacy rate of adult population, %	98.9	99.1	99.3	99.5	
• Aggregate share of students aged 6-24, %	65.9	65.9	66.9	67.9	
Health Indices					
• Infant mortality rate (per 1000 live births)	25.4	24.2	21.4	20.2	19.6
• Maternal mortality rate (per 1000)	69.4	76.9	77.5	65.3	68.1

Sources: UNDP 2001, *Human Development Report for Kazakhstan (2000)*; Ministry of Economy and Trade of the Republic of Kazakhstan (draft as of March 2002), *The Republic of Kazakhstan State Poverty Reduction Program for 2003-2005*.

Table 3. So me Poverty Indicators by Oblasts

Oblast	RGDP, 000 Tenge (2000)	Endowments/ Environmental & Other Concerns	Share of poor population, % (1stQ2001)	Income ratio of 10% richest to 10% poorest (1stQ2001)	Share of rural poor as % rural population	Health Indicators			
						Infant mortality rating* (2000)	Maternal mortality rating* (2000)	TB rating* (2000)	Infectious & parasitic diseases rating* (2002)
High RGDP									
Mangistau	432, 1	Rich in oil & gas/poor water supply	52, 1	15, 1	87	26,2	16	15	15
Atyrau	581, 7	Rich in oil & gas/poor water supply	41, 5	11, 2	53	6	15	10	13
Low RDGP									
Almaty	72	Agri/poor water supply	44, 2	9, 7	45	1	5	2	1
Jambyl	50, 2	Agri/reclaimed barren lands/water supply disconnected	48, 5	8, 9	54	13	7	8	2
Kyzylorda	93, 4	Agri/company towns w/ high poverty/10-15% irrigated lands out of rotation due to deteriorating irrigation facilities, 20-25% pasture lands are degraded due to Aral Sea problems/poor water supply	51, 1	7	65	12	4	16	14
South Kaz	61, 1	Agri/company towns w/ high poverty/declining fertility of lands/poor water supply	31, 7	7, 4	36	10	6	3	3
Middle RGDP									
Pavlodar	175, 2	Industrial	19, 7	9	24	15	1	13	10
Aktobe	162, 5	Agri, mineral	27, 6	13	39	16	8	14	5
East Kaz	143, 3	Miner/water supply disconnected	28, 8	10, 5	36	8	13	4	9
Kostanai	144, 1	Agri	26, 0	11, 7	36	11	14	7	6
Akmola	94, 7		29, 4	8, 7	31	3	12	9	7
Almaty City	329	Industrial	12, 3	7, 8		2	11	1	12
North Kaz	98, 8	Agri/company towns w/ high poverty	15, 0	7, 1	20	4	10	5	8
West Kaz	203, 4		31, 4	9, 4	40	5	2	11	11
Karaganda	197, 2	Industrial/air pollution/water supplies disconnected	24, 9	8, 6	30	7	3	6	4
Astana City	254	Industrial	7, 3	11, 4		9	9	12	16

* 1- highest ranking in terms of incidence; 16- lowest ranking in terms of incidence

Source: National Statistical Agency

TABLE 4. SOME INDICATORS OF ACCESS TO BASIC SOCIAL SERVICES

Indicators	%
Access to education	<ul style="list-style-type: none"> • 30,000 pupils commute a distance of 5-40 kms to reach school • 75% of non-attending children is due to poverty
Access to health	<ul style="list-style-type: none"> • Tuberculosis incidence rose by 99.6% from Jan-Sept 2002 compared to same period in 1996 • 60% of pregnant women suffer from anemia • 24% of settlements do not have medics
Access to drinking water	<ul style="list-style-type: none"> • 4% of population import water • 50% of population drink unsafe water
Access to transport	Average level of access to passenger transport is 30%

Source: Ministry of Economy and Trade of the Republic of Kazakhstan (draft as of March 2002), *The Republic of Kazakhstan State Poverty Reduction Program for 2003-2005*.

Source: ADB: Poverty in Kazakhstan- Key Issues and Suggested Agenda for Action

KAZAKHSTAN: IACD

Action plan on the implementation of the National Action Programme to Combat Desertification (NAP-2002)

?	Activities	Outcome	Period	Financial volume, thousand tenge	Source of financing	Responsible body
1. Creating of a sustainable nature use policy						
1.1. Activities aimed at reducing desertification and drought effects						
1.1.1.	Defining areas affected by desertification with the help of soil, geobotanical and hydrologic researches	Maps, reports	2002-2003	10 000	Grants from international organizations, donor countries, republican budget	MNREP ALM
1.1.2.	Land use analysis in agriculture and forestry	Maps, reports	2002		Republican budget	MNREP ALM MA
1.2. Conservation and restoration of pastures						
1.2.1.	Discovering degraded pastures and their classification in accordance with zones and trample degree.	Maps	2002-2004	7 500	Grants from international organizations, donor countries, republican budget	MNREP ALM
1.2.2.	Struggle against dust and salt drifts in settlements of the Aral sea region	Report	2002-2003	4 500	Grants from international organizations, donor countries	MNREP
1.2.3.	Pilot project UNSO KAZ98/X19-1 "Pasture. Pastures management" (Kyzylorda oblast)	Maps, report	2002	7 500	Grant of the UN Office for combating desertification	MNREP
1.2.4.	Project «Zhanartu». Biodiversity restoration and conservation of pasture vegetation on the degraded lands	Report	2002	3 750	Grant of the UN Office for combating desertification, GEF Small grants programme	MNREP
1.3. Forest conservation and restoration						
1.3.1.	Development of measures on forest melioration using drought-resistant trees	Action plan	2002	1 500	Grants from international organizations, donor countries, republican budget	MNREP
1.3.2.	Reclamation forest-growing on the territory of the dried-up bottom of the Aral sea (Kaukei district, Kyzylorda oblast)	Report	2003	1 500	Grants from international organizations, donor countries, republican budget	MNREP
1.3.3.	Expanding saxaul plants on the territory of Bakanask forestry	Report	2003	1 500	Grants from international organizations, donor countries, republican budget	MNREP
1.3.4.	WB/GEF project "Drylans management" (Karaganda oblast)	Report	2001-2006	1 102 500	WB/GEF grant	MNREP

?	Activities	Outcome	Period	Financial volume, thousand tenge	Source of financing	Responsible body
2. Social, economic and political aspects of nature use and struggle against desertification						
2.1. Increasing of income and employment of local population						
2.1.1.	Creation and support of advisory resource centers dealing with agriculture at the local level	Advisory centers	2004	3 000	Grants from international organizations, donor countries, republican budget	MNREP MA
2.2. ??????? ?????????? ??????? ?????????? ?????????? ? ????????? ?????????? ??????????						
2.2.1.	Creation of informational system of agricultural production marketing	Informational system	2005	1 500	Grants from international organizations, donor countries, republican budget	MNREP MA
2.3. Social and economic instruments to combat desertification						
2.3.1.	Making land, water and forest users and owners responsible for carrying out anti-degradation and rehabilitation measures Establishing absolute economic responsibility of all non-agricultural nature use institutions for pollution and degradation of natural resources	Draft bills, amendments to laws	2003	1 500	Grants from international organizations, donor countries, republican budget	MNREP ALM MA MNI
2.3.2.	Establishing system of ecological insurance and insurance and drought effects insurance	Draft bills	2003	1 500	Republican budget	MNREP
2.3.3.	Development of traditional and new trades, crafts and agricultural sectors «Ecostan» - creation of a campsite and forest-pasture agroecosystem on the track of the «Great silk road», Ily valley zone, Kumkol, Kuram) Establishing of an ethnographic Kazakh village «Koryk» in Akmola oblast Revival of the Kazakh camel species Baktrian	Report	2002-2004	3 000 1 500 4 500	Grants from international organizations, donor countries	MNREP
2.4. Integration of programmes to combat desertification into complex development plans						
2.4.1.	Preparation of the information on combating desertification for Kazakhstan agenda 21 and sustainable development plans of the RK	Review, analysis	2002-2003	1 500	Grants from international organizations, donor countries, republican budget	MNREP
3. Institutional frameworks, scientific and informative support						
3.1. Creation of a national mechanism on combating desertification management						
3.1.1.	Establishment of the Interdepartmental commission to combat desertification Establishment of the Centre to combat desertification	Decree of the Government Centre to combat desertification	2002	15 000	Grants from international organizations, donor countries	MNREP
3.1.2.	Consolidation of the process on implementing conventions (UNCCD, UNCBD, UNFCCC) Establishment of a United interdepartmental commission on international environmental agreements	Decree of the Government of the RK	2003		Republican budget	MNREP

?	Activities	Outcome	Period	Financial volume, thousand tenge	Source of financing	Responsible body
3.1.3.	Development of programmes to combat desertification at the oblast level	Programmes to combat desertification at the oblast level	2004		Oblast budgets	MNREP, Akimats
3.2. Regional and international cooperation in combating desertification						
3.2.1.	Development and realization of intergovernmental activities of contiguous countries. Activities which aim at keeping the balance of transboundary ecosystems Development of the Sub-regional action programme to combat desertification in the Aral sea basin	Agreements, Action programme	2002-2004	7 500	Grants from international organizations, donor countries	MNREP
3.2.2.	ADB/GM project «Regional technical assistance to combat desertification»	Report	2002-2003	7 500	ADB/GM Grant	MNREP
3.2.3.	ICARDA/GEF project «Sustainable management of stock and pasture biodiversities in order to prevent natural resources and health of the rural population in Kazakhstan and Uzbekistan from degradation	Report	2002-2004	147 000	ICARDA/GEF Grant	MNREP
3.2.4.	ESCATO/GEF project «Management of mountain pastures in the Central Asia »	Report	2003-2007	120 000	ESCATO/GEF Grant	MNREP
3.2.5.	GM/GTZ Project on increasing public participation and traditional knowledge in the Central Asia	Report	2002-2003	15 000	GM/GTZ Grant	MNREP
3.3. Informing and educating local population how to combat desertification						
3.3.1.	Carrying out a long-term strategy on informing and preparing population to combat desertification Publication of an educational periodical, booklet, bills, training programmes and methodologies	Booklet, training programmes, periodicals, articles, Video films	2002-2010	15 000	Grants from international organizations, donor countries, republican budget	MNREP MCPA MES
3.3.2.	Increasing participation of population in NAPCD realization. UNSO KAZ98/X19-4 pilot project on interaction of LC/NGO of remote villages in the Aral sea region, local authorities in cooperation with national and international volunteers of the UNO	Report	2002	1 500	Grant from the UN Office to combat desertification	MNREP
3.4. Scientific support of the assessment, prevention and struggle against desertification						
3.4.1.	Development of a conceptual basis for desertification monitoring. Desertification monitoring on the territory of Aidarly weather station (Almaty oblast) Environmental monitoring in Semipalatinsk polygon area.	Reports, maps Reports, maps	2004 2003-2005	2 000 135 000	Grants from international organizations, donor countries, republican budget	MNREP

?	Activities	Outcome	Period	Financial volume, thousand tenge	Source of financing	Responsible body
3.4.2.	Studying economic, politic and demographical factors of desertification and poverty; development of sustainable development mechanism at the local level	Analysis SD conception at the local level	2003	3 000	Grants from international organizations, donor countries, republican budget	MNREP
3.4.3.	Development and application of space assessment and monitoring of desertification	Methodology Maps	2004	4 500	Grants from international organizations, donor countries, republican budget	MNREP MES
3.4.4.	Correction of methods on soil and vegetation monitoring taking into account desertification process	Methodology	2004	1 500	Grants from international organizations, donor countries, republican budget	MNREP ALM

KAZAKHSTAN: IACD

Key Agriculture Production Indicators

**Table 1: Dynamics of production of food products in the Republic of Kazakhstan
(data of Statistics Agency of the Republic of Kazakhstan, 2001)**

Products	Production, million tons.				Change (-,+) per capita
	1990 ?. (population – 16.35 million people)		2001 ?. (population – 14.82 million people)		
	Total	Per capita, kg (pieces)	Total	Per capita, kg (pieces)	
Grain	28,49	1742	14,26	962	-780
Meat, (slaughtered weight)	1,6	97	0,6	40	-57
Milk	5,6	342	3,7	250	-92
Eggs, billion pieces.	4,2	256	1,7	115	-141
Potatoes	2,32	137	1,69	114	-23
Vegetables	1,14	69	1,54	104	+35
Fruits and berries	0,30	18	0,17	12	-6

**Table 2: Indicators of economic status of agricultural enterprises
(data of Statistics Agency of the Republic of Kazakhstan, 2001)**

Indicators	1995?.	1997?.	1998?.	1999?.	2000?.
Number of loss-making enterprises	1427	2656	2585	1578	1735
Percentage of loss-making enterprises, %	78,5	72,4	78,5	49,5	51,6
Loss amount, billion tenge	21,7	27,5	26,6	-	-
Gross produce, billion tenge	101	130	57	96	99
Profitability, %	-23,5	-20,9	-25,7	14,6	19,8
Investments in fixed capital, billion tenge	5,4	2,0	0,9	1,4	5,9

**Table 3: Dynamics of yield of the main agricultural crops
(data of Statistics Agency of the Republic of Kazakhstan, 2001)
(centners/ha.)**

Agricultural crops	All categories of farms				Peasants' farms			
	1990?.	1995?.	1999?.	2000?.	1990?.	1995?.	1999?.	2000?.
Grain	12,2	5,0	13,0	9,4	14,0	4,4	13,3	11,5
Including: wheat	11,5	5,2	12,9	9,0	14,9	4,3	12,7	10,8
Rice	46,5	19,3	28,1	29,7	-	-	-	-
Potatoes	113	84	108	106	136	61	108	112
Vegetables	154	101	134	153	43	101	130	154
Fruits and berries	41,9	14,3	17,7	35,9	-	12,3	18,2	39,6









Table 4: Dynamics of livestock
(data of Statistics Agency of the Republic of Kazakhstan, 2001)
(thousand heads)

	All categories of farms				Peasants' farms			
	1990?.	1995?.	1999?.	2000?.	1990?.	1995?.	1999?.	2000?.
Cattle	9757	6870	3998	4107	5	157	230	209
Pigs	3224	1623	984	1076	0,8	16	28	32
Sheep and goats	35660	19584	9657	9981	51	1120	867	840
Horses	1626	1557	970	976	0,9	78	89	79
Camels	143	130	96	98	-	2,9	8,3	8,7
Poultry	58899	20810	18022	19706	-	127	173	166

KAZAKHSTAN: IACD

Kazakhstan: GEF Project Portfolio

Country 'Kazakhstan' Period From: 1994 To: 2002

Single Country Projects - 5 Projects								
Country	Project Name	Region	Focal Area	Agency	Project Type	GEF Grant (US\$M)	Project Stage	Details & Documents
Kazakhstan	Development of A National Strategy and an Action Plan to Implement the CBD and to prepare the First Report to the COP	ECA	Biodiversity	UNDP	Enabling Activity	0.133	CEO Approved	
Kazakhstan	Integrated Conservation of Priority Globally Significant Migratory Bird Wetland Habitat	ECA	Biodiversity	UNDP	Full Size Project	8.847	Council Approved	
Kazakhstan	Wind Power Market Development Initiative	ECA	Climate Change	UNDP	Full Size Project	2.900	Council Approved	
Kazakhstan	Programme for Phasing Out Ozone Depleting Substances	ECA	Ozone Depletion	UNDP	Full Size Project	5.600	CEO Endorsed	
Kazakhstan	Assistance to Kazakhstan in Fulfilling its Commitments Under the Stockholm Convention of Persistent Organic Pollutants	ECA	POPs	UNDP	Enabling Activity	0.500	CEO Approved	
Subtotals for the Result						17.980	5 Projects	
Regional and Global Projects - 3 Projects								
Country	Project Name	Region	Focal Area	Agency	Project Type	GEF Grant (US\$M)	Project Stage	Details & Documents
Regional	Addressing Transboundary Environmental Issues in the Caspian Environment Programme	REG	International Waters	UNDP	Full Size Project	8.341	CEO Endorsed	
Regional	Water and Environmental Management in the Aral Sea Basin	ECA	International Waters	IBRD	Full Size Project	12.025	CEO Endorsed	
Regional	Central Asia Transboundary Biodiversity Project	ECA	Biodiversity	IBRD	Full Size Project	10.495	CEO Endorsed	
Subtotals for the Result						30.861	3 Projects	

KAZAKHSTAN: IACD

BIBLIOGRAPHY

- Asian Development Bank, Environment Division, *Central Asian Environments in Transition*, July 1997.
- The Asian Development Bank, *Kazakhstan: Country Strategy And Program Update (2002-2004)*.
- ADB, Internal Paper: *Poverty in Kazakhstan- Key Issues and Suggested Agenda for Action*.
- Alberto Valdes Edited, *Agricultural Support Policies in Transition Economies*, World Bank Technical Paper NO. 470, Europe and Central Asia Environmentally and Socially & sustainable Development Series.
- ADB, *Central Asia: Assessment of ADB Environment Assistance, Prepared by David S. McCauley, August, 2002*
- ADB, UNDP, UNEP: *Concept Paper on Regional Cooperation in Central Asia*, Draft 9 April, 2002.
- CAREC, *Central Asia: Progress Review in Implementing of the AGENDA 21*, Almaty, 2002.
- CAREC, *Central Asia on the way to sustainable development*, Almaty, 2002.
- CGIAR Program Facilitation Unit, Tashkent, *CGIAR Collaborative Research Program for Sustainable Agricultural Development in Central Asia and the Caucasus*
- Federal Research Division, Library of Congress, Area Handbook Series, *Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan -country studies*, Edited by Glenn E. Curtis, 1997.
- ICARDA, *ICARDA in Central Asia and the Caucasus*
- Kazakh CAMIN Working Group, ADB Project RETA # 5978, *National Strategy and Action Plan for Sustainable Mountain Area Development of Kazakhstan*, June 2001.
- Kazakhstan (RK)/UNDP: *Republic of Kazakhstan 10-Year Progress Report on Agenda 21 Implementation in Kazakhstan, 2002*
- UNDP, "Government of the Republic of Kazakhstan and UNDP: *Framework for Cooperation on Sustainable Development for 2000-2004*", Almaty, May 2000
- USAID, *Central Asia Natural Resources Management Project*
- Vladimir Mamaev, Ph.D., Woods Hole Group, Inc., *Sustainable Development in Central Asia: Assessment and Challenges of Agenda 21, Zero Draft Report, August 16, 2001*.
- The World Bank: *Country Assistance Strategy for the Republic of Kazakhstan*, January 16, 2001, Report No.: 21607 KZ
- The World Bank Group, *Country Brief, Kazakhstan*, updated September 2001.