

UZBEKISTAN: ISSUES AND APPROACHES TO COMBAT DESERTIFICATION

Discussion Draft

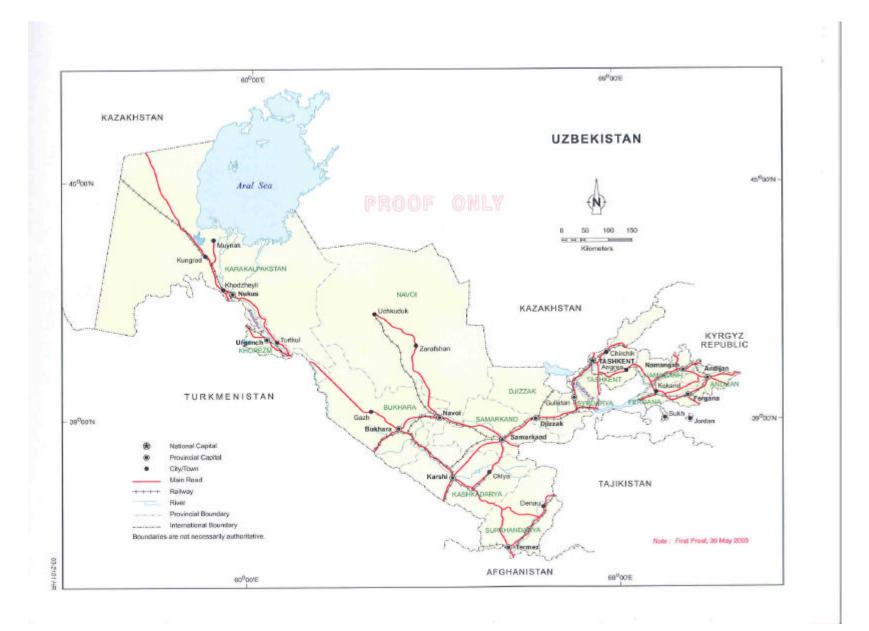
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CURRENCY EQUIVALENTS

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ABBREVIATIONS

ADB	_	Asian Development Bank
CAMIN	_	Central Asian Mountain Information Network
CARs	_	Central Asian Republics
CCA	_	Common Country Assessment
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
Glavgidromet	_	Main Administration of Hydrometeorology,
Ulavgiuloillet	—	Cabinet of Ministers, RU.
ICAS		
ICAS ICIMOD	_	Interstate Council for the Aral Sea (merged into IFAS)
ICIMOD	_	International Center for Integrated Mountain Development
ICSD	_	Interstate Commission for Sustainable Development Interstate Commission for Water Coordination
	_	
IFAS	_	International Fund for Saving the Aral Sea
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
SANIGMI	_	Hydro-meteorological Institute, Uzbekistan
SIC	_	Scientific Information Center
SPA	_	Strategic Partnership Agreement
SRAP	_	Sub-regional Action Program under UNCCD
ТА	_	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

UZBEKISTAN: ISSUES AND APPROCHES TO COMBAT DESERTIFICATION (IACD-UZB)

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COMBATING DESERTIFICATION IN CENTRAL ASIA

UZBEKISTAN: ISSUES AND APPROACHES TO COMBAT DESERTIFICATION (IACD-UZ)

EXECUTIVE SUMMARY

1. The Asian Development Bank (ADB), with co-financing from the Global Mechanism (GM) of the United Nations Convention to Combat Desertification (UNCCD), approved the Regional Technical Assistance (RETA) No. 5941¹ 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 to strengthen the implementation of the UNCCD in Central Asia. The Uzbekistan: Issues and Approaches Paper (IACD) has been prepared according to the conclusions reached at the working meeting of the NFPs and domestic consultants (DCs), the international consultant and representatives of the GM and UNCCD Secretariat, held in Tashkent on October 28-31, 2002.² The IACD takes into account the country situation paper (CSP) prepared by the domestic consultant for Uzbekistan, Mr. Sergey Myagkov, and a large number of other background documents.

2. The report focuses on (i) macroeconomic context and living standards, (ii) land degradation/desertification situation, (iii) implementation of the UNCCD, (iv) the policy framework, (v) priorities and programs to combat desertification/land degradation, and (vi) issues and opportunities in implementing UNCCD/NAPs in Uzbekistan.

Macroeconomic context and living standards. Of the 15 newly independent states that 3. emerged from the break-up of the Soviet Union in 1991, Uzbekistan is the third largest in terms of population (24.5 million) and fourth largest in land area (447,000 square kilometers). Uzbekistan is rich in natural resources such as coal, copper, gold, natural gas, oil, silver and uranium. Primary commodities account for about 77 percent of exports, with cotton alone accounting for 40 percent. To achieve macroeconomic stability and address key structural rigidities, the Government in 1994 embarked on a comprehensive reform program. However, the momentum for reforms considerably slackened in recent years. As a consequence, the environment for private sector investment and growth remains uncertain. There is need to accelerate the pace of macroeconomic and structural reforms (e.g., liberalization of the foreign exchange and trade regimes, agriculture sector, enterprise, and banking sector reforms) in order to attract foreign direct investments and spur the growth of the economy. Using the minimum wage as the threshold for an absolute poverty line, the incidence of poverty nationally was found to be 30 percent, of whom about 17 percent were very poor. The ADB is assisting the Government in preparing a National Strategy to Improve the Living Standards of the People of Uzbekistan.

4. **Land degradation/desertification.** More than 85 percent of the territory of Uzbekistan consists of desert or semi-desert. Approximately 47 percent of the land area consists of meadows and pastures; another 10 percent is arable, and 1 percent has permanent crops. A third of the land is "not used", and the

¹ The TA grant was approved in September 2000, with a total cost of \$450, 000 to be jointly financed by the ADB (\$250,000) and GM (\$200,000), with the ADB acting as the executing agency. The RETA country coverage includes, besides the five CARs covered by this consultancy contract, four other DMCs, namely the Peoples' Republic of China, India, Mongolia and Pakistan. The International Consultant was recruited in July 2001 (Contract # COCS/016.615). The plan of work, as set out in the approved Inception Report, provides for three person months for the International Consultant.

² The meeting reviewed the interim outputs of the RETA by the domestic consultants and the international consultant.

balance is utilized for non-agricultural uses. Water is the basis for intensive irrigated agriculture, which is the mainstay of the economy in Uzbekistan, as in the other Central Asian Republics (CARs). The two main rivers of the region, Amu Darya and Syr Darya, flow through the country and terminate in the Aral Sea. Land degradation is caused by geological, geo-morphological and man-made factors. The lands of Bukhara, Navoi, Kashkadarya and Fergana regions suffer from soil degradation. Water erosion strongly affects the agricultural lands of Surkhandarya, Tashkent, Namangan and Andijan regions. Sheep pastures are mainly based upon use of the summer mountain pastures, and overgrazing has contributed to degradation. During the past 15-20 years, there has been an extensive degradation of pasture lands, due to the unsustainable use of pasture in cattle breeding, lack of maintenance of pastures and other human activities.

5. Up to 46 percent of irrigated lands of Uzbekistan are exposed to varying degrees of salinization. In the case of land salinity, the role of inappropriate irrigation practices by far surpasses natural causes. Likewise, vegetation degradation is caused by livestock overgrazing, cutting of trees and shrubs for firewood, discharge of drainage water into desert depressions and excessive watering.³ Drying of the Aral Sea and exposure of toxic materials that have been deposited on the former sea bed also is a serious problem in the country. Rainfed farming lands occupy an area of about 4.5 million ha, of which arable lands constitute only 753,000 ha, or only 20 percent of the irrigated lands. Land degradation has been a crucial factor in the decline in living standards due to loss of soil fertility and crop yields.

6. The economic costs of land degradation need to be assessed at three levels: at the *field level*, in terms of decline in productivity; at the *national level*, in terms of lower growth of the agricultural GDP & export earnings; and at the global level, in terms of land degradation's negative impact on carbon sequestration and climate change, loss of productive capacity of the agricultural land, damage to biodiversity conservation, and pollution of transnational water resources flows. While a reliable estimate of the economic costs of land degradation in Uzbekistan is not available, the deterioration of production base due to lack of upkeep of irrigation and drainage systems, huge water losses, severe soil salinization and declining crop yields, is estimated by the World Bank to cost the country US\$ 1,000 million annually at economic prices.⁴ A fuller assessment of the economic costs of land degradation, however, would need a comprehensive study.

Implementation of the UNCCD. The National Action Plan of Uzbekistan was finalized in 7. 1999. NAP displays a strong grasp of the scientific and technical issues and is cognizant of the role of positive policy orientation for its success. However, it does not delve into the specifics of policy issues involved. While the NAP discusses the issue of rainfed farming, it emphasizes a major characteristic of the land degradation problem in much of Central Asia, namely, the centrality of sound water resources management to any viable strategy to control and prevent land degradation in this region. The NAP essentially advocates action on three priority areas to combat land degradation: (i) prevent or reduce the scale of land degradation; (ii) restore partially drained lands; and (iii) reclaim lands affected by desertification. The NAP is however weak in policy and programmatic content. The NAP process received some funds and technical support from the United Nations Environment Programme (UNEP) for its preparation, and from the United Nations Development Program (UNDP) and the Government of Finland for its implementation, mainly for the purpose of organizing awareness building workshops (notably a Forum in Tashkent). In addition, small grant assistance was provided for the National report preparation. However, substantive implementation of UNCCD/NAP activities is constrained by lack of adequate funds from budgetary sources.

³ See table 3 in the main report for e Extent of land degradation by different types of erosion

⁴ The World Bank, *Project Concept Document*, Uzbekistan Drainage Project, December 2, 1999.

8. The Focal Agency for the implementation of the UNCCD-NAP in Uzbekistan is the Main Administration of Hydrometeorology (Glavgidromet) located in the Cabinet of Ministers with the SANIGMI Institute as its research arm. Glavgidromet is also the focal institution of the UN Framework Convention of Climate Change and for the Global Environment Facility. The National Focal Point for UNCCD, designated recently to this position, is Mr. Zokhidjon Nazirov, Deputy Director of Central Asia Research Hydrometeorological Institute (SNIGMI). A UNCCD Inter-Departmental Commission exists to oversee the implementation of the Convention and promote inter-ministerial coordination. However, it appears that *the inter-agency coordination is a dormant structure since its main activity is of a formal nature geared to meet the demands of the meetings and reporting obligations under the Convention.* This is so, because of the sluggish process of NAP implementation, which is attributed to funding and capacity constraints.

9. The NAP process in Uzbekistan, as in other Central Asian Countries, needs to be strengthened in the following major areas to overcome the weaknesses which contribute to the slow pace of implementation of the UNCCD:

- (i) Integrating NAP with the national budgetary and planning processes. NAP is treated more as a stand alone government report than as an actionable instrument. Necessary administrative action is needed to raise the NAP to the status of a development program, with well identified set of activities or projects which become eligible for budgetary support. Such activities or projects could be organized as an "Action Plan to implement the National Action Program to combat desertification". This should be a rolling plan to be updated annually and overseen by the CCD Inter-Departmental Commission. Moreover, the projects should be crosscutting and not just confined to the Focal Institution's area of responsibility. Other Government ministries, such as Agriculture, Water Resources, Nature Protection, would be approached to provide their projects, which address land degradation issues for inclusion in the rolling Action Plan, to make the CCD NAP an inclusive mechanism for a more holistic approach to combating desertification.
- (ii) Synergies between the NAP-CD and other Multilateral Environmental Agreements and the National Environmental Action Plan (NEAP). Strengthening the synergies between the key international environmental conventions to which Uzbekistan is party, including the CCD-NAP, would catalyze collaborative activities around concrete action areas. For this purpose, it is suggested that the Government may constitute a Working Group of the NFPs of the UNCCD, Biodiversity Convention and Climate Change Convention, the (Government) NFP for GEF as well as representatives from the Ministry of Nature Protection responsible for implementation of the NEAP. The Working Group should be charged with producing a concrete joint program for collaboration and a process to ensure the coordinated implementation of the activities and projects by concerned agencies. This would avoid different environmental agencies working at cross purposes, rather than presenting a coherent platform for action.
- (iii) Strengthening the capacity of the National Focal Point (NFP) for UNCCD implementation-- in areas such as, program development, communication skills, translation and interpretation, training in donor agency procedures, and sensitization in cross-cutting concerns, e.g. participatory approaches and gender issues. Such support would also be needed for staff of other agencies involved in NAP related activities.

10. **Promoting a three-pronged approach to implementation of UNCCD.** The Convention to Combat Desertification is based on a more inclusive approach to achieve its objectives within the broader development context. Its approach to implementation, therefore, has three essential elements: mainstreaming, participation, and operational orientation.

- (a) **Mainstreaming** is necessary for lasting solutions to desertification problems through multi-sectoral and cross-cutting approaches spanning a spectrum of policies, programs and actors involved in areas of particular relevance to land degradation prevention and control. Mainstreaming must occur at both the macro (budgetary & planning agencies and processes) and sectoral levels (such as with the Ministry of Agriculture, Water Management, Nature Protection).
- (b) Participatory approaches would ensure that the UNCCD implementation process would have the ownership of all stakeholders, more particularly NGOs, CBOs and the local communities. In this context, working with NGOs requires special measures consistent with Government regulations and due to relatively weak civil society institutions. It seems that participation will be an evolutionary process starting with consultation and engagement. It will require flexibility and adaptive approaches to promote closer involvement of NGOs and beneficiaries in the implementation activities in support of UNCCD goals.
- (c) **Operational orientation** to the implementation process would require decentralization and active involvement of local governments in the implementation process at the grassroots. Land degradation is to be tackled in close cooperation with rural communities in the specific local contexts. Government entities at the national, *viloyat, rayon* and *hakimyat* levels will need time and support to adjust to new and less top-down functions in land and water management.

Policy Framework

11. **Macro Policy Agenda.** The Government has a gradualist and cautious approach to policy reforms particularly in areas of privatization, ownership rights, and foreign exchange and trade regimes. This has affected the pace of aid flows as well as foreign direct investment. However, the continuation of price and subsidy policies has cushioned the consumers and even the rural populations from the sudden curtailment of safety net programs and provision of basic social services even though funding constraints affected the quality and reliability of such services. The policies also tend to create incentives for suboptimal use of scarce natural resources -- such as, excessive and inefficient use of water resources, or use of fragile lands for unsustainable agriculture (both crop and pasture). The Government did manage to achieve a measure of macro-economic stability. However, the economy is facing a number of challenges, such as rising debt burden and slow industrial growth. Improved governance and transparency remains a priority concern for the government, the donor community and the private investors.

12. The **strategy to improve living standards** will be fully articulated as part of the "2010 Strategy" which is still under preparation. However, it is recognized that the problem of poverty already poses a serious challenge to policy makers due to high population growth rate, rising levels of disguised unemployment and declining trends in agricultural productivity as a result of increase in soil degradation and salinization. Adoption of a national strategy to improve living standards, on the pattern of the poverty reduction strategy paper (PRSP) framework, would provide a cohesive framework for medium term goals and directions of a broad based economic growth and social wellbeing.

13. Legal Framework. Uzbekistan, like other CARs, has adopted a number of laws to protect the environment. Approximately 100 legislative acts directly or indirectly related to environmental protection and use of nature have been passed in Uzbekistan since independence. The main limitations of the legislation are: serious inconsistencies, weak administrative capacity to implement the law and considerable scope for bureaucratic discretion in application of laws and regulations. Enforcement of environmental regulations and norm depends on strengthening the capacity and oversight of the local branches of the Ministry of Nature Protection. They can be overcome by efforts over time to plug the loopholes and enforce compliance. Legislative reform, reviewing the old and outdated acts and passing new ones, is an ongoing process. In this context, attention needs to be paid to strengthening the laws relating to land use and water resource management.

14. **Natural Resources Management and Environmental Policies**. In respect to the "Natural Resource Management and Environmental Policies", Uzbekistan has adopted the "Program of Actions on Environment Protection in the Republic of Uzbekistan for 1999-2005". However, a major weakness is lack of strong policy and legislative underpinning and limited implementation enforcement and management capacity. There is a large common ground between approaches to sustainable natural resource management and measures to combat desertification. However, there is need to improve coordination between the Ministry of Nature Protection, the focal institution for NEAP, the Glavgidromet, the focal institution for the UNCCD, and the national planning and agricultural authorities.

Agricultural Policies. Uzbekistan's agricultural sector is characterized by a production system 15. which responds to two main policy objects: maximize cotton production as a crucial earner of foreign exchange and intensive production of wheat and other food crops to ensure national food security. Uzbekistan's approach to farm sector reforms represents a mixture of partial reforms and administrative measures, with a strong bias towards the latter. The former sovkhozes and kolkhoses (FSK) have transformed into shirkats, and in some areas the FSK have been transferred to smaller separate farming entities-dekhan farms and private farms. On-farm infrastructure remains largely operated by the shirkat, often with informal agreements with other farmers in the hydrological unit. The depressed state of the agricultural economy in recent years has led to shortfalls in funding and a lack of routine O&M which has exacerbated problems such as waterlogging and salinization, further depressing cotton yields and therefore returns. Farmers have limited experience with independent decision-making regarding their operations and will need time and support to develop the confidence to take over effective control of irrigation and drainage systems. However, the Government has undertaken some experiments with the introduction of water user associations (WUAs), which would provide an important model for wider replication. The crucial issue is how to promote an incentive framework which would stimulate a high supply response, and lead to environmentally sustainable agricultural production. In the current policy environment, there is risk of perverse incentives leading to land mismanagement and inefficient on-farm water management There is also lack of adequate attention to dryland resource management issues which gain some prominence only in times of severe drought, such as the one which affected the Republic of Karakalpakstan in 2000/2001.

16. In the above context, a significant recent positive policy development is the "Decree on Agricultural Reform", which was signed by the President of the Republic of Uzbekistan on March 24, 2003.⁵ The Decree is intended to "implement proper market-market-based management structures in agriculture, [and to] broaden the independence and secure the legal protection of agricultural producers." The existing system of leasing land and contracting with producers is to be expanded. As of 2004, all collective farms and other agricultural units are to be transferred to the leasing system. The policy of state-determined procurement targets for grain and cotton will remain, but the types of crops to be grown will be determined on the basis of contracts with procurement organizations. Units of agricultural

⁵ Uzreport.com –source: RFE.

producers are supposed to manage their own resources, and government distribution of resources is to be abolished. The decree is officially described as ending the command system in the agricultural sector, but a number of Soviet style features will be retained, including state procurement and an emphasis on collective rather than individual farming.

17. **Water Conservation Policies.** Water use inefficiencies are attributable to a number of factors - deterioration of storage and irrigation infrastructure involving water losses, weak on-farm water management and conservation frameworks, primary and secondary salinization due to wind and water erosion, water-intensive cropping patterns and absence of a strong regulatory system of incentives and disincentives to promote water conservation. The challenge for policy makers is how to move simultaneously on (i) implementing reconstruction of irrigation and collector-drainage networks, (ii) improving technology and watering technique with due regard for population and water consumption of other sectors of national economy, (iii) and improving water use efficiency. There are also issues concerning water sharing arrangements. Uzbekistan has under consideration a proposal to construct a large water reservoir to be in a better position to regulate the release and allocation of water on a timely basis for agriculture, but the issues of technical and financial feasibility need to be further explored. The provision of safe drinking water supply and how to help the drought prone Karakalpakstan region to increase its food production are problems which need particular attention.

18. **Evolving a cohesive strategic framework to combat land degradation.** The Government's gradual approach to policy reforms somewhat blunts the objective of evolving a cohesive strategic framework to combat desertification. The Government is working on elaborating a strategy-2010 framework, though its road map is not yet fully articulated. This is an area where Government needs technical assistance from the development partners, though the ownership of the process must remain with the Government. At the level of policy, the most urgent and complex issue is the construction of a system of incentives and disincentives to prevent wasteful use of land and water esources and adoption of pro-conservation practices. Policy incentives should be preferred to direct support in the form of administered prices, subsidies or production targets.

19. **Priorities and programs to combat land degradation.** The priorities to combat land degradation/desertification may be grouped into the following main priority areas: (a) establishing systems of desertification, salinization and drought monitoring, and consolidating network of data collection, assessment and early warning; (b) preventing soil erosion caused by wind and water, including salinization control; (c) promoting a comprehensive use of water catchments areas - a water basins development approach which would need regional cooperation in case of Aral Sea basin, or Amu Darya/Syr Darya basins;⁶ (d) improving irrigation and drainage systems;(e) improving soil fertility and land use, with emphasis on applied research and technology, much more than on socio-economic and institutional constraints to technology uptake; (f) rehabilitation of degraded lands in the Aral Sea basin; and (g) improving the degraded rangelands, pastures and hay fields, with emphasis on karakul sheep breeding rangelands of Uzbekistan. Tackling these priority areas requires coordinated action by a number of other agencies, besides the focal institution.

20. At the level of programs, the emphasis of the Focal Institution appears to be on seeking technical assistance grants for research type pilot activities (see project briefs at Annex 2). The capacity to devebp investment projects which directly address land degradation issues is limited in the Focal institution as well as in other concerned agencies.

21. Assistance to Uzbekistan from a number of external donor agencies does not focus explicitly on land degradation or on UNCCD implementation. However, some of the ongoing or pipeline projects of

⁶ The watershed development approach is equally applicable to smaller catchments/ hydrological units.

multilateral financial institutions do address aspects of the land degradation issues directly or indirectly. The CCD-NFP needs to have capacity to influence projects in the early design stage to reflect land degradation concerns. For this, it would need to work with the national executing agencies in sectors such as agriculture, water resources, or rural development. Appropriate mechanisms for inter-agency consultations and collaboration to enable this need to be worked out.

22. Accessing External Assistance. The CCD NFP also needs institutional and technical support to strengthen interface with donor agencies, to prepare project concepts tailored to the priorities and processes of various potential donor agencies in order to access financing for UNCCD/NAP implementation. GM/SPA partners may consider appropriate ways to assist with capacity building support. Already partners, such as GM, ADB, GTZ and Canada are engaged in activities to stimulate the process of UNCCD implementation (see Part IV-B). *It would be helpful, however, to conceive of an Umbrella Project Identification-Cum Preparation funding arrangement for CARs on the lines of the ADB/GM initiative for Western China for which a GEF PDF-B grant was recently approved by GEF, with ADB as the executing agency.*

Issues and Opportunities in implementing UNCCD in Uzbekistan.

23. **Obligations of the Parties under the CCD**. The Government's budgetary constraints notwithstanding, it is emphasized that the Government has undertaken certain obligations under the articles of the CCD to provide financial and other support for the implementation of the Convention. It is therefore suggested that appropriate budgetary allocations be provided in the case of priority projects to combat land degradation by bringing such projects within the framework of the national budgetary and PIP processes. The development partners too have obligations under the Convention to assist the affected developing countries in their efforts to prevent and control land degradation with technical and financial resources (see Box).

24. Notwithstanding a somewhat mixed enabling policy environment, there is a strong rationale for supporting real sector financing needs related to issues that address land degradation within the broader context of economic growth and strategy for improvement of living standards. In this context, some of the issue areas calling for urgent attention are summarized below:

- (a) The project briefs submitted by the Domestic Consultant/NFP, and much of the emphasis in the NAP is on technical and research areas. Considering the funding constraints, it is suggested that priority should be given to down-stream areas of applied research or study with value-added for technology up-gradation, practical and cost-effective on-the-ground solutions, or efficient resource conservation. Focus of such activities should be on addressing real problems in the agricultural sector and on rehabilitation of degraded lands, with attention to biophysical dimensions of a particular problem, as well as to issues of institutional feasibility and benefit-cost considerations.
- (b) Institutional strengthening of the status of NAP and the NFP also needs urgent attention. For instance, NAP lacks the status of a formally recognized development program within the framework of the government's planning and budgetary processes. The National Focal Point is not a Government designated position, but merely a designated function assigned to one of its Officers by the focal agency in addition to the substantive functions of that Officer within that agency. The NFP does not have adequate equipment, staff or resources, and lacks the capacity building support to have a meaningful interaction with the international donor community or to prepare program proposals to access funding support from these agencies. Unless these constraints are appropriately addressed, the

main instruments in the country to implement the Convention do not have the means and motivation to function with efficiency and vigor.

- (c) In the context of environment and combating desertification, there is a realization on the part of policy makers of the challenge posed by land degradation to sustainable development and economic well being of the people. From the stand point of UNCCD implementation, this offers a good window of opportunity for mainstreaming land degradation as an important part of the environmental agenda into the overall policy dialogue framework.
- (d) Constraints to effective program development and implementation are another major issue area. Overcoming these constraints needs action at many fronts and by the Government, the NGOs and Civil Society and by the international community. There is no single blue print, but a number of suggestions are addressed in the report, which need concerted action, starting with providing some urgent relief to the funding and capacity related constraints. The Focal Institution and the NFP should be so positioned as to be able to leverage other agencies' programs to address land degradation concerns. This would be particularly relevant in order to influence the programs/projects in the pipelines of IFIs, which are in an early design stage. But NFP needs capacity building support and training in order to be able to effectively play this role.

25. **New external financing opportunities**. A new window of funding opportunity has opened with the amendment to the GEF Instrument "to designate land degradation, primarily desertification and deforestation, as a focal area, as a means of enhancing GEF support for the successful implementation of the UN Convention to Combat Desertification." The GEF Council in its session on May 14-16, 2003 considered a draft Operational Program (OP) on "Sustainable Land Management". This draft OP no. 15 operationalizes the designation of land degradation as a focal area. It provides a framework for the development of activities eligible for GEF incremental financing to address the root causes and negative impacts of land degradation on ecosystem stability, functions, and services as well as on people's livelihoods and economic well-being through sustainable land management practices. The document outlines, among other things, program objective, expected outcomes, and activities eligible for GEF support.⁷

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

Main Conclusions/Recommendations

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

⁷ GEF assistance would cover three inter-related types of interventions – capacity building, on-the-ground investments, and targeted research – at the community, national, and/or transboundary levels.

1. It is observed that implementation of a number of programs included in Uzbekistan's NAP framework is held up for want of financial resources. Notwithstanding prevailing tight budgetary situation, the Government has an obligation under the CCD to provide appropriate resources for the implementation of the Convention. This situation needs to be reviewed at senior levels by the Government to make necessary financing from domestic resources available for the priority programs to combat desertification. As for the development partners, a limiting factor is the absence of an overall strategic framework of the type provided by a national poverty reduction strategy framework. Many donors are also reluctant to increase their aid commitments because of slow progress on policy reforms. Even so, there is a strong rationale for the multilateral and bilateral donors to finance activities which are directly or indirectly supportive of UNCCD objectives through a **conscious support** to UNCCD through the NAP framework. This might provide a good entry point to help trigger policy dialogue on policy issues which relate to sustainable management of ecology and environment.

2. Considering the funding constraints, and the large number of competing proposals for technical assistance, it is suggested that priority should be established on the basis of criteria which give preference to down-stream areas of applied research or study with value-added for technology up-gradation, on-ground solutions, or efficient resource conservation. The prioritization process should also take into account: the biophysical dimensions of a particular problem, the number of people (especially the poor) affected, institutional feasibility, and comparative benefit cost considerations of competing alternatives.

3. There are number of institutional and capacity constraints underlying the slow progress of implementation of the CCD/NAP. Actions needed to overcome these constraints could broadly be grouped as follows:

- (i) Strengthen the institutional status and capacity of the NFP/CD and of the interagency coordination mechanism – official status, training, better equipped facilities and staffing, with particular emphasis on strengthening program identification, conceptualization and preparation capacity.
- (ii) Operationalize the NAP through a rolling action program for its implementation focused primarily on policy and programmatic content to serve as a basis of mainstreaming CCD, and especially the land degradation concerns, in the national development strategy, and reflecting the funding needs of its priority activities and projects, including those of other concerned agencies, into the national budgetary process. This would require aligning the timeline of the proposed annual rolling program to the national budgetary cycle.
- (iii) The rolling plan to be updated annually and overseen by the CCD Inter-Departmental Commission, should comprise of policy actions and projects, which are crosscutting and not just confined to the Focal Institution's area of responsibility. Other Government ministries, such as Agriculture, Water Resources, Nature Protection, would be approached to provide their projects, which address land degradation issues for inclusion in the rolling Action Plan, to make the CCD NAP an inclusive mechanism for a more holistic approach to combating desertification/land degradation.
- (iv) Promote synergies between, the environmental conventions. The NFPs of the conventions need to develop joint work programs to address inter-related concerns about land degradation and deforestation, preservation of ecosystem

stability, functions, and services such as soil and watershed protection, carbon uptake and storage, water purification, climate regulation; and nutrient retention.⁸ Strengthening the programmatic content of the joint Work Programs would catalyze collaborative activities around concrete action areas. Mere emphasis on establishing formal administrative mechanisms, important as they are, would not be a sufficient condition to promote synergies. For this purpose, it is suggested that the Government may constitute a Working Group of the NFPs of the UNCCD, Biodiversity, Convention, Climate Change, NEAP and GEF, which may meet periodically to promote mutual collaboration around joint work programs.

- (v) Strengthen participatory approaches for closer involvement of NGOs, Civil Society and local communities in the local area development projects to combat land degradation.
- (vi) The corrective actions mentioned above primarily rest with the Government of the Republic of Uzbekistan. However, the GM and its SPA partners may consider pump-priming these actions through policy dialogue, coupled with funding support to strengthen the capacity of the NFP and of the Focal Institution.

4. The focus of the policy dialogue in the context of CCD implementation needs to focus on sectoral issues relating to agriculture, water resources and environmental sustainability. These issues should, however, form an integral part of the overall policy dialogue, which to some extent is constrained till a national strategy to improve living standards, on the pattern of PRSP, is evolved. From the perspective of land degradation, the crucial issue is how to devise a system of incentives and disincentives to encourage more sustainable and efficient use of crop lands, irrigation and pastures. In this context the March 2003 Decree on Agricultural Reform is intended to promote market-based management structures, and to broaden the independence and secure the legal protection of agricultural producers. The main areas of continued policy dialogue aimed at supporting the ongoing reforms are:

- (a) the gradual and ultimately complete liberalization of input and output prices and services;
- (b) the interface between shirkats and private farms, specifically the emerging competition for land, water and other resources between the increasingly commercialized shirkats and existing or new private farmers; and
- (c) the exchange rate reforms, since the prices the farms are paid for producing cotton are expected to improve significantly once the overvalued official exchange rate is unified at the market rate.

5. The programmatic content of the NAP needs to be better developed and presented in order to access both domestic budgetary resources and external aid resources, both of which are in short supply. In the immediate to medium term (2003-2005), technical assistance/grant financing, even in modest amounts could help improve capacity and jump start some participatory pilot projects to address land degradation problems specific to particular locations, with special attention to the Aral Sea region, especially the poor and drought prone Karkalpakstan. As for the investment needs, priority may be given to two areas: (a) Reflecting land degradation concerns in projects already in the pipeline of IFIs but in early design stage –

⁸ GEF draft OP # 15 emphasizes such joint work programs.

such as irrigation and drainage, agricultural or rangelands and forestry projects; (b) synergistic projects with other environmental conventions focused on land degradation which would meet GEF criteria. In summary, action to access external financing is needed at two levels:

- (i) to develop a credible program which is approved by the Government as part of its public investment program and which focuses on preventing or controlling land degradation; and
- (ii) to evolve a structured mechanism for policy dialogue with development partners on environmental and land degradation related issues and actions, so as to build partnerships to mobilize their technical and financial assistance.

6. Uzbekistan may be able to get from GEF "enabling activity" grant for land degradation focal area, as it has obtained for "Expedited Financing of Climate Change Enabling Activities"-see Annex 5. Any assistance in terms of technical and funding support from interested donors to the Government of Uzbekistan for identification of GEF-able project concepts (both national and regional) would be most useful in stimulating implementation of UNCCD.

UZBEKISTAN: ISSUES AND APPROACHES TO COMBAT DESERTIFICATION (IACD-UZ)

Introduction

1. The Asian Development Bank (ADB), with co-financing from the Global Mechanism (GM) of the United Nations Convention to Combat Desertification (UNCCD), approved the Regional Technical Assistance (RETA) No. 5941¹ 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 to strengthen the implementation of the UNCCD in Central Asia. The Uzbekistan: Issues and Approaches Paper (IACD) has been prepared according to the conclusions reached at the working meeting of the NFPs and domestic consultants (DCs), the international consultant and representatives of the GM and UNCCD Secretariat, held in Tashkent on October 28-31, 2002.² The IACD takes into account the country situation paper (CSP) prepared by the domestic consultant for Uzbekistan, Mr. Sergey Myagkov, and a large number of other background documents.

I. The Macroeconomic Context and Living Standards

A. General

2. The Republic of Uzbekistan is situated in the central part of the Eurasian continent between the Syrdarya and the Amudarya rivers. Of the 15 newly independent states that emerged from the break-up of the Soviet Union in 1991, Uzbekistan is the third largest in terms of population and fourth largest in land area (447,000 square kilometers). Uzbekistan is one of the world's countries most remote from the seas. Its territory in the North is open to the cold and dry Arctic air currents, while in the South very high mountains block the way to humid and warm air streams (monsoons). Therefore, its climate is subtropical and sharply continental. The mountains of Uzbekistan are part of the Tien-Shan and Guissar-Alai mountain ranges. The Chatkal and the Kuramin ridges frame the vast Ferghana Vallev in the North. About 8-9% of the country's gross agricultural product originates in the mountains. Uzbekistan, the most populous republic in Central Asia, has a population approaching 24.5 million, with population density about 55 persons per 1 km², as compared to the regional average³ of only 14 persons per 1 km². More than 48 per cent of the population is 16 years of age or under. Although the fertility of the population is declining, the momentum of past rapid growth still exerts pressure on the available resource base.⁴ As in other FSU countries, human development indicators are strong, with relatively long life expectancy (70.4 years in 1994), high adult literacy (98.7%), and low maternal mortality (17.3 per 100,000 births in 1994).

¹ The TA grant was approved in September 2000, with a total cost of \$450, 000 to be jointly financed by the ADB (\$250,000) and GM (\$200,000), with the ADB acting as the executing agency. The RETA country coverage includes, besides the five CARs covered by this consultancy contract, four other DMCs, namely the Peoples' Republic of China, India, Mongolia and Pakistan. The International Consultant was recruited in July 2001 (Contract # COCS/016.615). The plan of work, as set out in the approved Inception Report, provides for three person months for the International Consultant.

 $^{^{2}}$ The meeting reviewed the interim outputs of the RETA by the domestic consultants and the international consultant.

³ Mr. Sergey Myagkov, Domestic Consultant Uzbekistan, Country Situation Paper. Mr. Myagkov is a Deputy Director in SNIGMI, and has been designated by the Government as the NFP for GEF.

⁴ United Nations Resident Coordinator System, Common Country Assessment of Uzbekistan, 2001.

B. Economy and reforms

Uzbekistan is rich in natural resources such as coal, copper, gold, natural gas,⁵ oil, silver and 3. uranium. The country has a well-educated population and qualified labour force and enjoys significant economic potential. Primary commodities, together with cotton fibres, account for about 77 per cent of exports, with cotton alone accounting for 40 per cent. Despite the difficult terrain (60 per cent desert, steppe or semi-arid land with only 10 per cent under cultivation), irrigated agricultural land accounts for about one third of GDP and employs 40 per cent of the labour force. GNP per capita was US\$720 in 1999' at the overvalued official exchange rate, placing it among the lower middle income economies. Uzbekistan also became a major gold producer (second largest in the FSU, eighth largest in the world) and producer of natural gas. Despite the difficult terrain (60 per cent desert, steppe or semi-arid land with only 10 per cent under cultivation), irrigated agricultural land accounts for about one third of GDP and employs 40 per cent of the labor force. The share of agriculture in GDP had declined from 35% in 1992 to 22% in 1996, but has since risen to over 30% in 2000. Its industrial potential, however, apart from industry directly related to agriculture, has remained relatively less developed. The government's policy goal is to transform the structure of the economy into a vibrant industrialized economy (see table -1 for the current and projected structure of the economy).

4. Immediately following independence in 1991, Uzbekistan experienced economic difficulties similar to those that affected other CIS countries, including loss of markets and subsidies from the former Soviet Union; major disruption of trade and payments; hyperinflation; and declining outputs. Against this background, the government decided deliberately to follow a gradual, so-called step-by-step approach to macroeconomic and market-oriented structural reforms. To achieve macroeconomic stability and address key structural rigidities, the Government in 1994 embarked on a comprehensive reform program, which was backed initially by the IMF's Structural Transformation Facility and an IBRD Rehabilitation Loan, and subsequently by an IMF stand-by arrangement. The program envisaged continuing financial stabilization and gradual, phased liberalization of external trade and payments regimes, and structural reforms encompassing privatization and restructuring of medium- and large-scale enterprises, liberalization and land reform/farm restructuring in agriculture, and reform of the financial sector. However, the momentum for reforms considerably slackened in recent years. As a consequence, the environment for private sector investment and growth remains unattractive.

5. In the short to medium term, the economy remains fragile, as its high dependence on exports of two major products, cotton and gold, makes it vulnerable to adverse movements in world prices and weather conditions. There is need to accelerate the pace of macroeconomic and structural reforms (e.g., liberalization of the foreign exchange and trade regimes, agriculture, enterprise, and banking sector reforms) in order to attract foreign direct investments and spur the growth of the economy.⁶

⁵ At present Uzbekistan belongs to ten of leading world gas producers. Gas production is placed at 12 fields. At old-developed gas-bearing fields Shurtan and Kokdumalak 51 fields with explored reserves in 488 billion m³ have been prepared to industrial development. During the period from 1992 to 1999 natural gas production in Uzbekistan increased by 30% and its domestic consumption – by 11.4%.

⁶ ADB, Uzbekistan, Country Strategy and Program Update (2002-2004), August 2001.

Sector of economy	Current			Projected	
	1992	2000	2010	2015	2020
Industry	26.6	13.8	25.0	27.0	28.0
Construction	9.5	6.1	9.0	10.0	11.0
Agriculture	35.4	30.4	23.0	21.8	20.0
Transport and Communications	5.2	8.1	10.0	11.0	11.0
Communal Service	23.3	28.8	30.5	31.0	30.0

C. Living Standards

The information on the extent and nature of poverty in Uzbekistan remains incomplete. There is 6. at present no official poverty line in Uzbekistan but several studies done by international funding agencies and non-government organizations indicate that the level of poverty may be quite high.⁷ If the \$2.15 per capita expenditure per day is used, the poverty threshold that is applied to compare the Central Asian economies, poverty incidence in 1997 was 39 percent for Fergana, one of the better-off regions in the country.⁸ Using the minimum wage as the threshold for an absolute poverty line, the incidence of poverty nationally was found to be 30 percent, of whom about 17 percent were very poor. A sample survey conducted in selected parts of the country in 1995 indicated that Karakalpakstan (a semi-autonomous republic in the far western part of Uzbekistan) is the poorest part of the country due chiefly to its remote location and poor resource endowment. The incidence of poverty was much higher in both rural (69%) and urban (49%) Karakalpakstan.⁹ The ADB is processing a Japan Fund for Poverty Reduction (JFPR) project in Karakalpakstan.¹⁰ The JFPR project is designed to pilot test innovative approaches for sustainable poverty reduction in selected sectors, possibly for ADB's future country portfolio. The ADB also approved a technical assistance (TA)¹¹ for preparing a National Strategy to Improve the Living Standards of the People of Uzbekistan. Under this TA, a poverty analysis will be undertaken in cooperation with the World Bank and other development partners.

7. The Government has undertaken many social safety net programs, which tend to mask the high incidence of poverty and unemployment. The registered unemployment rate is very low, less than 1 per cent in recent years. However, actual, unregistered unemployment, or under-employment, is estimated to vary from 6 to 25 per cent nationally, with variations across regions and sectors. The extent of female involuntary unemployment is difficult to estimate in the absence of reliable survey data. Women in rural areas with large families, for example, may prefer to work in the home on private garden plots. The main determinants of poverty are land degradation and declining agricultural productivity, high prices of food and other wage goods for the urban consumers, high inflation and slow growth of earnings, and unemployment.

⁷ The Government avoids the use of the term "*poverty*" and instead prefers to refer to *Living Standards Assessment*.

⁸ World Bank. 2000. *Making Transition Work for Everyone- Poverty and Inequality in Europe and Central Asia.* Washington, DC: World Bank. p. 3.

⁹ World Bank, *Country Assistance Strategy for the Republic of Uzbekistan*, February, 1998.

¹⁰ The project will create jobs and provide income to low-income households as well as address the water-based problems resulting from the environmentally strained and drought-induced situation in Karakalpakstan.

¹¹ ADB, TAR: UZB 35015, November, 2001.

II. Land Degradation/Desertification

A. Main areas affected by degradation

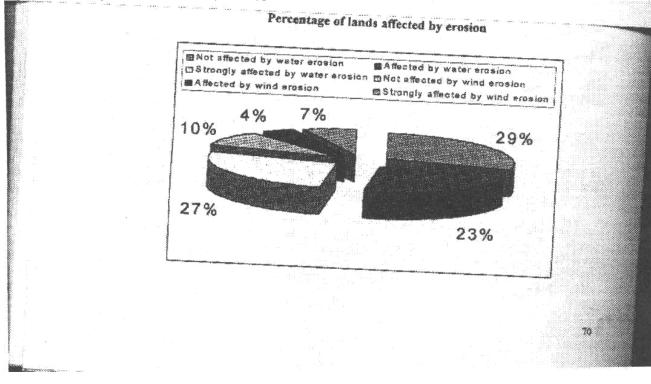
8. More than 85 percent of the territory of Uzbekistan consists of desert and semi-desert. In the west, the midlatitude desert has long, hot summers with mild winters. The eastern portion of the country is semi-arid grassland. Approximately 47 percent of the land area consists of meadows and pastures; another 10 percent is arable, and 1 percent has permanent crops. A third of the land is "not used", and the balance is utilized for non-agricultural uses. Around 3,000 settlements are located in the mountain areas, 90.8% at an elevation ranging from 600 to 1000 meters. Their production practices often contribute to pressures on fragile mountain ecology. Sheep pastures are mainly based upon use of the summer mountain pastures and overgrazing has contributed to degradation. Water is the basis for intensive agriculture, which is the mainstay of the economy in Uzbekistan, as in the other CARs. The melting snow cover and glaciers are the main sources for rivers in the region. Some studies have highlighted a potentially major problem for the ecological balance in the form of a sharp reduction in snowfall due to climate changes in the second half of the 20th century. There is need for fuller studies, including satellite monitoring of snow covers and glaciers, to understand how climate warming interacts with changes of the river flows and indirectly affects desertification processes. The two main rivers, Amu Darya and Syr Darya terminate in the Aral Sea. The two river basins have over 30 major tributaries. More than 20 large and mid-sized reservoirs and 60 canals of different sizes have been constructed in the two basins since the 1950s for intensive irrigated agriculture, which accounts for 85% of the total water use in the country and 54% of the total irrigated area in the entire Aral Sea basin. (see table 2). Figure 1 shows the percentage of lands affected by main types of erosion.

Table 2: Land resources in the Aral Sea basin ¹² (in 000 ha)				
Country	Total	Cultivable area	Cultivated area	Actual irrigated area
Kazakhstan* Kyrgyzstan* Tajikistan Turkmenistan Uzbekistan	34440 12490 14310 48810 44884	23872 1570 1571 7013 25448	1659 595 874 1805 5208	786 422 719 1735 4233
The Aral Sea basin	154934	59474	10146	7895

* Only areas within the Aral Sea basin have been included.

¹² Based on FAO data, 1997; Source: Uzbekistan: Country Situation Paper. Source of Figure 1: NAP, p.70.





9. Land degradation is caused by geological, geo-morphological and man-made factors. The lands of Bukhara, Navoi, Kashkadarya and Fergana regions suffer from soil degradation. Water erosion strongly affects the lands of Surkhandarya, Tashkent, Namangan and Andijan regions, where 50-60 percent of agricultural lands are found. The total area of pastures in Uzbekistan is 23 million ha, or half of the total territory. During the past 15-20 years, there has been an extensive degradation of pasture land (especially in *chul*), due to the unbalanced use of pasture in cattle breeding, lack of maintenance of pastures and other human activities.¹³ *Natural mineralization* is observed through all aeration zone higher than ground water table, usually lying deeply and also in ground water itself.¹⁴ The Aral Sea region, especially Karakalpakstan, deserves special attention in efforts to prevent and control land degradation.

10. **Anthropogenic factors**. Up to 46% of irrigated lands of Uzbekistan are exposed to varying degrees of salinization. In the case of land salinity, the role of incorrect irrigation practices by far surpasses natural causes. High secondary salinization is a major environmental problem. Likewise, vegetation degradation is caused by livestock overgrazing, cutting of trees and shrubs for firewood, discharge of drainage water into desert depressions and excessive watering. The Anthropogenic impact on water resources in the mountains is related to hydro technical construction and irrigated farming, mining and processing enterprises as well as other types of economic activity. The consequences of the Almalyk mining and enriching factory in the basin of the river Ahangaran can serve as an example of water quality

¹³ Uzbek CAMIN Working Group, National Strategy and Action Plan for Sustainable Mountain Area Development of Uzbekistan, June 2001 (ADB RETA: 5978).

¹⁴ Saline soils (*solonchaks*) are formed in places where groundwater lies close to the surface.

degradation in the rivers of the mountain areas. In the river Ahangaran of Tuyabuguz, there is an excess of the maximum allowable concentration of heavy metals. Some other human factors contributing to land degradation, due partly to drainages upstream of Uzbekistan, are mentioned below:

- drying of the Aral Sea and exposure of toxic materials that have been deposited on the former sea bed;
- discharge of toxics from industry and cities to the water and the air; in the absence of a safe disposal sites, hazardous wastes from industry¹⁵ are left behind and these, too, pose risks to surface and groundwaters; and
- mine tailings, especially those associated with toxic metals that have been deposited in areas adjacent to population centers.

B. Types of land degradation and underlying causes

11. According to the NAP, the dominant causes of land degradation are through processes of wind and water erosion, though the situation is compounded by other human factors contributing to transboundary water and soil contamination. Strong wind activity, ploughing of mountain slope lands, inappropriate irrigation and cattle grazing practices have resulted in the vast erosion of all soil types in Uzbekistan. Some 65-98% of agricultural lands are subject to a significant erosion process. **Rainfed farming** lands occupy an area of about 4.5 million ha, of which arable lands constitute only 753,000 ha, *or only 20% of the irrigated lands*. The population in the rainfed farming area is over 3 million ha. Drylands, with light desert grey soils, estimated at about 1.6 million ha and situated at an altitude of 230-450 m are predominantly livestock breeding areas. The greater part of the arable lands is under cereals. Most of the rangelands are situated in Kashkadarya, Samarkand and Jizak provinces. The area of rainfed rangelands has considerably reduced due to overgrazing and cutting of forests. Table 3 provides an overview of the extent of land degradation in Uzbekistan.

,	· · · ·	• •		
	Including			
Total	Not exposed to	Exposed to	Exposed to wind	Exposed to water
(m 000 na)		water erosion	erosion	and wind erosion
	processes			, _
44410	-	-	-	-
26734	1553	2700	20475	2005
3733	451	339	2202	741
3308	169	341	2057	741
425	212	-	213	-
23001	851	2346	18125	1679
17676				
	Total (in 000 ha) 44410 26734 3733 3308 425 23001	Total (in 000 ha) Including Not exposed to erosion processes 44410 - 26734 1553 3733 451 3308 169 425 212 23001 851	Total (in 000 ha) Not exposed to erosion processes Exposed to water erosion 44410 - - 26734 1553 2700 3733 451 339 3308 169 341 425 212 - 23001 851 2346	Including Total (in 000 ha) Not exposed to erosion processes Exposed to water erosion Exposed to wind erosion 44410 - - - 26734 1553 2700 20475 3733 451 339 2202 3308 169 341 2057 425 212 - 213 23001 851 2346 18125

Table 3: Uzbekistan, Extent of land degradation by different types of erosion

Source: Uzbekistan, Country Situation Paper

C. The economic costs of land degradation

¹⁵ According to the State Committee for Nature Protection, approximately 1.5 km³ of liquid industrial and municipal waste and more than 100 million tons of solid waste are generated in Uzbekistan each year.

- 12. The economic costs of land degradation need to be assessed at three levels:
 - At the *field level*, in terms of decline in productivity;
 - At the *national level*, in terms of lower growth of the agricultural GDP & export earnings; and
 - At the global level, land degradation impacts negatively on carbon sequestration and climate change due to increased emissions of greenhouse gases, reduces productive capacity of the agricultural land, causes damage to biodiversity conservation, and adversely affects transnational water resources flows and quality.

13. It seems that there is no readily available source or study on the economic costs of land degradation in Uzbekistan, though fragmented anecdotal references to likely damage may be found. For instance, the Project Document of the GEF/World Bank Aral Sea Basin Program estimates the annual damages due to salinization in Uzbekistan at US\$ 250/ha.¹⁶ According to another estimate, the deterioration of production base due to lack of upkeep of irrigation and drainage systems, huge water losses, severe soil salinization and declining crop yields, is costing the country US\$ 1,000 million annually at economic prices.¹⁷ The Uzbekistan NAP mentions some estimates of damage to productivity, such as:

- Prolonged absence of grazing on well-fixed rangelands has a bad impact on grasses and in some 4 or 5 years their yield may drop by 20%.
- The area of rangelands has decreased by 6.5 million ha as compared to the 1950s.
- At present over 70% of the total amount of salts carried by the river flow is deposited on cultivated lands. As a result, soil fertility and farm crop yields are dropping.
- Expenditures on the liquidation of sand drifts over roads, irrigation and drainage facilities, irrigated plantations, etc. inflict great damage on the country's economy.
- During the vegetation period water erosion carries away 40 to 80 tons/ha of the most fertile top soil layer.

III. Implementation of the UNCCD

A. NAP process in Uzbekistan

14. The text of National Action Plan was finalized in 1999. It was prepared by a Steering Committee of experts drawn from a number of concerned Government agencies, with financial and technical assistance provided by UNDP and UNEP. The steering committee was later transformed as an interdepartmental commission designated by the Government to continue as the coordination body to oversee the NAP's implementation. The Commission is headed by the Chief of the Main Administration on Hydrometeorology under the Cabinet of Ministers of the Republic of Uzbekistan.

15. The NAP is a well structured document, which sets out at the beginning the objectives and approach of the UNCCD. The document makes the following statement on the objectives and scope of the NAP:

"The objective of the National Action Plan to Combat Desertification is to secure implementation of a single guideline and planning structure in managing interventions aiming to prevent

¹⁶ GEF, Water & Environment Management Project, May 1998, p.7, footnote 11.

¹⁷ The World Bank, Project Concept Document, Uzbekistan Drainage Project, December 2, 1999.

desertification and mitigate its impact. The Action Plan will permit to establish a mechanism for the development of effective targeted programmes and projects, make planning at the national level transparent, attract the assistance of donor organisations and draft agreements in support of the interventions planned in the spirit of partnership."

16. NAP displays a strong grasp of the scientific and technical issues and has a refreshingly pragmatic and positive policy orientation. However, it does not contain much by way of analysis of the policy issues involved and how such issues impact on land degradation. While the NAP discusses the issue of rain-fed farming, it emphasizes a major characteristic of the land degradation problem in much of Central Asia, namely the centrality of irrigation and water resources management to any viable strategy to control and prevent land degradation in this region. For instance, in a discussion of the soils, the NAP observes¹⁸ that in "natural conditions **soils of the desert zone** have low fertility. However, when irrigated, especially with the application of fertilizers, their fertility grows considerably". This concept led to the Soviet strategy of agricultural specialization and monoculture based on dramatic expansion of the irrigation networks to tap virgin soils. This approach is at the core of the current land degradation crisis. *Therefore, unlike in rest of the Asia and Afric a, combating land degradation in the arid and sub-arid zones.*

17. The NAP emphasizes another point, which is not yet fully internalized in the public policy of research and extension in the CARs. This relates to de-emphasizing monoculture in cash and food crops. The NAP observes that to "increase soil fertility, a radical improvement of its conditions is required as well as introduction of full crop rotations, rational application of organic and mineral fertilizers, deep ploughing of the arable layer, wind break belts and such like."

18. The NAP essentially advocates three main elements of the strategy to combat land degradation in Uzbekistan:

- Prevent or reduce the scale of land degradation;
- Restore partially drained lands;
- Reclaim lands affected by desertification.

B. The Focal Agency & Institutional Framework

19. The Focal Agency for the implementation of the UNCCD-NAP in Uzbekistan is the Main Administration of Hydrometeorology (Glavgidromet) located in the Cabinet of Ministers with the SANIGMI Institute as its research arm. Glavgidromet is also the focal institution of the UN Framework Convention of Climate Change and for the Global Environment Facility. As regards the Biodiversity Convention, its focal institution is the State Committee for the Nature Protection, which is also the main executor for the National Environmental Action Plan, together with the Ministry of Health. The National Focal Point for UNCCD, till his retirement in October, 2002 was, Dr. Anatoly M. Ovchinnikov¹⁹ - a senior and experienced administrator and technical expert, who is held in high esteem within the Government. He has been replaced by Mr. Zokhidjon Nazirov, Deputy Director of Central Asia Research Hydrometeorological Institute (SNIGMI).

20. The NAP process received some funds from UNDP and UNSO for its implementation mainly for the purpose of organizing awareness building workshops, notably a Forum in Tashkent. Over all, the financial assistance received was: Finland, \$50,000 for the Forum and workshops; and UNEP, \$60,000

¹⁸ Uzbekistan NAP/CD p. 31.

¹⁹ Chef of International Department of Glavgidromet, <u>sanigmi@albatros.uz</u>.

for NAP design. In addition, small grant assistance was provided for the National report preparation - \$4,000 in 2000 and \$5,000 in 2002. However, substantive implementation of UNCCD/NAP activities is constrained by lack of funds from budgetary sources. *Consequently, the inter-agency coordination is also a dormant structure since its main activity is of a formal nature geared to meet the demands of the meetings and reporting obligations under the Convention*. Box 1 gives the composition of the national coordination body.

Box 1: UNCCD Inter-departmental	Commission
V.E. Chub	Chief of the Main Administration on Hydrometeorology under the Cabinet of Ministers of the Republic of Uzbekistan, National Project Coordinator,
P.K. Khabibulaev	Chairman of the State Committee on Science and Technology,
A.Sh.Khabibulaev	Chairman of the State Committee on Nature Protection,
A.A. Khanazarov	Chairman of the State Committee on Forestry,
B.B. Bekturdyev	First Deputy Chairman of the Council of Ministers of the Republic of Karakalpakstan,
A.A. Jalalov	First Deputy Minister of Agriculture and Water Resources,
T.F. Aripov	Vice-President of the Academy of Sciences,
O.A. Ashurmetov	Director of the Institute of Botany of the Academy of Sciences,
B.A. Tashmuhamedov	Head of the Section of Biological Sciences, Academy of Sciences.
A.M. Ovchinnikov	Deputy Chief of Glavgidromet, and National Focal Point of UN CCD for the Republic of Uzbekistan
Source: Country Situation Paper.	

C. Strengthening NAP process and participatory approaches

21. Apart from funding constraints, the NAP process in Uzbekistan, as in other Central Asian Countries, needs to be strengthened in the following major areas to overcome the weaknesses which contribute to the slow pace of implementation of the UNCCD:

23.1 Integrating NAP with the national budgetary and planning processes. The National Action Program (NAP-CD), though approved by the Government, does not have the formal status of a program with access to Government's budgetary resources. NAP is treated more as a stand alone government report than as an actionable instrument. Necessary administrative action is needed, in accordance with the Government's decision making process, to raise the NAP to the status of a development program, with well identified set of activities or projects which become eligible for budgetary support. Such activities or projects, for the sake of administrative convenience, could be organized as an "Action Plan to implement the National Action Program to combat desertification". Such "Action Plan" would serve as the operational arm of the NAP. The Action Plan should have the following key characteristics:

- (a) The Action Plan *should be in the nature of a rolling plan*, which is updated annually through a process of inter-agency consultations to be undertaken under the aegis of the National Coordinating Body of the UNCCD.
- (b) The Action Plan *should be cross-cutting in nature*. It would include priority activities and projects or programs of not just the UNCCD focal institution, but also the relevant activities and projects of the other government departments or

agencies, such as the ministries of agriculture, irrigation and water resources, forestry, livestock, nature protection, land administration etc, which address the land degradation issues.

- (c) The NAP and its implementation Action Plan should be given due cognizance in the Government's Development Strate gy and its Poverty Reduction Strategy.
- (d) The National Budget should establish a distinct budget category for financing support to the NAP-CD and its implementation Action Plan, within the limits of its budgetary resource constraints.

23.2. **Synergies between the NAP-CD and other Multilateral Environmental Conventions and NEAP:**²⁰ The rationale for exploiting synergies is emphasized in the CCD Convention. The importance of promoting synergies is also recognized by the Uzbek NAP. However, the engine to drive this process is missing. To promote synergies, the environmental conventions need to develop joint work programs to address land degradation and deforestation to achieve multiple global benefits, including poverty alleviation; and preservation of ecosystem stability, functions, and services such as soil and watershed protection, carbon uptake and storage, water purification, climate regulation; and nutrient retention.²¹ Strengthening the programmatic content of the **Joint Work Programs** would catalyze collaborative activities around concrete action areas. Mere emphasis on establishing formal administrative mechanisms, important as they are, would not be a sufficient condition to promote synergies. *For this purpose, it is suggested that the Government may constitute a Working Group of the NFPs of the UNCCD, Biodiversity, Convention, Climate Change, NEAP and GEF, which may meet periodically to promote mutual collaboration around joint work programs.*

23.3 <u>Strengthening the institutional capacity of the National Focal Point (NFP) for</u> <u>UNCCD implementation</u> The NFP is the key instrument to facilitate the implementation of the Convention. However, the effectiveness of this instrument is severely blunted due to lack of adequate institutional and capacity building support. *The NFP needs to play a proactive role in bringing the NAP within the scope of the national planning framework*. In this connection, the working meeting of NFPs and DCs in Tashkent in October 2002 made the following useful suggestions:²²

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

²⁰ GEF draft OP # 15 on Land Management defines land degradation as follows: "Land degradation is broadly defined as "... any form of deterioration of the natural potential of land that affects ecosystem integrity either in terms of reducing its sustainable ecological productivity or in terms of its native biological richness and maintenance of resilience."

²¹ GEF draft OP # 15 emphases such joint work programs.

²² Summary of Discussions and Conclusions, Working Meeting for the Review of the Interim outputs from the ADB/GM RETA 5941 Initiative for Central Asia, Tashkent, Uzbekistan 28-31 October 2002.

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

22. <u>Capacity building needs of National Focal Point and of Focal Institution for UNCCD.</u> Capacity building support is urgently needed to strengthen the capacity of the NFP and of the Focal Institution in the following areas:

- Program development, such as preparation of concept notes and project proposals relating to addressing land and water degradation in order to approach potential donor agencies, including GEF.
- Communication skills, translation and interpretation in order to encourage active interface with international and bilateral agencies and their sensitization as to the importance of the Desertification Convention to the country's goals of sustainable economic growth and poverty reduction.
- Selective training in donor agency procedures, with particular emphasis on the partner agencies in the GM/ADB strategic framework agreement, and GEF.²³
- Sensitization training in cross-cutting concerns such as participatory approaches, gender issues, and sustainable development.

23. **Promoting a three-pronged approach to implementation of UN CCD**. The NAP process must look beyond the narrow focus of emphasis on the technical and scientific dimension of desertification to a cross-sectoral approach to understanding and tackling the underlying root causes. Thus, the focus of NAP implementation should be on a three-pronged approach (see box 2):

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

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

25. **Participatory approaches** would ensure that the UNCCD implementation process would have the ownership of all stakeholders, more particularly the local communities who are the primary users of natural resources for their livelihood. Their participation can be catalyzed by the involvement of NGOs. In this context, working with NGOs requires special measures consistent with Government regulations

²³ With the recent amendment to the GEF Instrument, GEF has designated "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.

and due to relatively weak civil society institutions. It seems that participation will be an evolutionary process starting with consultation and engagement. It will require flexibility and adaptive approaches to promote closer involvement of NGOs and beneficiaries in the implementation activities in support of UNCCD goals. With regard to civil society and its participation, the 1999 NHDR indicated that over 2300 NGOs and public organizations have been created since 1991. Different forms of democratic participation, however, will be fully explored by the public at large. A crucial step was taken when the Government passed the NGO law in 1999 in an effort to boost the grass-roots initiatives and thereby supplement the role of the State. A network of over 10000 neighborhood associations - makhallas - is central to the government vision of decentralization of power and community development. The Uzbekistan NAP envisages the main areas of NGO activities in implementing the Convention as follows:²⁴

- Participating in the design of the national and local action plans on desertification control;
- Raising public awareness of desertification;
- Maintaining contacts between government agencies, NGOs and local authorities;
- Establishing contacts with NGOs in various Asian countries;
- Developing the organizational structure of the national NGO network.

26. **Operational orientation to the implementation process** is critical to producing concrete results on the ground. Desertification is a global challenge dependent to a large extent on local solutions. Uzbekistan NAP recognizes (see page 124) that the local authorities have an important role in the implementation of the Convention in following areas :

- Raising public awareness of the process of degradation and desertification as well as the aims and provisions of the Convention and the NAP tasks;
- Collecting data on desertification processes;
- Participating in the implementation of new technological projects on restoring land productivity;
- Securing maximum public participation in this work;
- Taking measures to improve the economic conditions and sustainable development at the local level;
- Implementing projects on alternative energy sources and income generation.

²⁴ Uzbekistan NAP-CD (English version), p. 126 & see UNDP in Uzbekistan web site for civil society participation.

Box 2. A three-pronged matrix for effective UNCCD implementation						
Mainstreaming	Participation	Operational Orientation				
		-				
on donor development cooperation frameworks clearly reflecting land degradation as one of the priorities for poverty reduction, requiring corresponding financial support 5. In order for effective UNCCD implementation it is recognized that both processes of participation and mainstreaming have costs which need to be financially covered	 participate both directly and indirectly in efforts to combat desertification. They should be supported within the framework of NAP program & its implementation plan. 4. NGOs also have considerable expertise which could be utilized in the implementation process. 5. Practical participatory mechanisms are in a stage of evolution. For instance, ADB projects have supported establishment of water users associations and credit unions. Such mechanisms should be strengthened through legislative and funding support. 	 potential donors and be customized to meet their requirements. 5. Special effort should be made to generate project ideas aimed at addressing land degradation, particularly desertification and deforestation, which has been designated as a focal area for GEF financing. 				

IV. Policy Framework

- 27. The main policy issues in the context of UNCCD are:
 - A. Macro Policy Agenda
 - B. Strategy to improve Living Standards
 - 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

- 28. The Uzbekistan Government in 1999 adopted the following priorities for public policy:²⁵
 - Liberalization in political and economic areas and liberalization of state and social development.
 - Further spiritual renewal of society.
 - Training of skilled personnel.
 - Steady and systematic growth of the people's well-being and better security for the population.
 - Economic restructuring.
 - Safeguarding of stability, peace, inter-ethnic and civil accord in society, inviolability of the country's frontiers and territorial integrity.

In practice, however, the Government adopted a gradualist and cautious approach to policy 29. reforms particularly in areas of privatization, ownership rights, and restrictive foreign exchange and trade regimes. This has slowed down the pace of aid flows as well as foreign direct investment. However, the continuation of price and subsidy policies has cushioned the consumers and even the rural populations from the sudden curtailment of safety net programs and provision of basic social services even though funding constraints affected the quality and reliability of such services. The policies also tend to create incentives for suboptimal use of scarce natural resources -- such as, excessive and inefficient use of water resources, or use of fragile lands for unsustainable agriculture (both crop and pasture). The Government also made progress in the privatization of state-owned enterprises in the agriculture sector, though privatization of large public enterprises is slow. More significantly, it has indicated its intention to move forward on the issue of exchange rate unification, with steps already taken to achieve gradual convergence of different exchange rates. Foreign exchange convertibility is another issue on which some progress is expected, albeit slowly. By maintaining tight monetary controls, the Government did manage to achieve a measure of macro-economic stability. However, the economy is facing a number of challenges:

- A rising debt burden. Its total external debt outstanding and disbursed stood at \$ 4,599 million in 1999 and 4,534 million in 2000. Its total debt service rose from \$ 574 million in 1999 to 957 million in 2000.
- Its financial institutions and regulatory framework need strengthening and restructuring.
- Foreign exchange and trade regimes discourage foreign direct investment crucial to accelerate economic growth.

²⁵ Uzbekistan: Moving Towards the 21' Century, Report to the 14th Session of the Parliament (Oliy Majlis).

• Improved governance and transparency remains a priority concern for the government, the donor community and the private investors.

B. Strategy to improve Living Standards

30. ADB is assisting the Government to formulate its national strategy to improve the living standards of the people based on a careful poverty analysis in collaboration with the World Bank. The World Bank is currently conducting a Living Standard Assessment (LSA) for Uzbekistan. The LSA will be based on the information derived from the new household surveys conducted by the State Department of Statistics on a pilot basis in 1999/2000, a participatory social assessment, and other relevant data sources. The major output of the efforts by the Government, working with a number of development partners, would be the Strategy 2010 report. However, it is evident that the problem of poverty already poses a serious challenge to policy makers due to high population growth rate, rising levels of disguised unemployment and declining trends in agricultural productivity as a result of increase in soil degradation and salinization.

C. Legal Framework

31. Uzbekistan, like other CARs, has adopted a number of laws to protect the environment. The Constitution of the Republic of Uzbekistan guarantees the environmental safety of its citizens. The nature protection legislation has created an economic and social background for the environmental safety, based the universally accepted environmental protection principles and a wise use of natural resources.

Approximately 100 legislative acts directly or indirectly related to environmental protection and use of nature have been passed in Uzbekistan since independence. The position of the main acts regulating environmental relations is summarized in Box 3. The main characteristics of the legislation in Central Asia, including in Uzbekistan, are:²⁶

- 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

32. The main limitations of **h**e legislation in the CARs are: serious inconsistencies in legislation, weak administrative capacity to implement the law and considerable scope for bureaucratic discretion in application of laws and regulations. They can be overcome by efforts over time to plug the loopholes and enforce compliance. Legislative reform, reviewing the old and outdated acts and passing new ones, is an ongoing process. In this context, attention needs to be paid to strengthening the laws relating to land use and water resource management.

²⁶ 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.

D. Natural Resource Management and Environmental Policies

33. Natural Resource Management practiced in agriculture, irrigation, forestry and pastures have contributed to the problems of land degradation and pollution. The energy development is affected by heavy non-productive losses practically in all links of fuel chain from mining to consumption in all sectors of the economy. Uzbekistan has a good potential for development of solar and wind energy. There is a large common ground between approaches to sustainable natural resource management and measures to combat desertification. However, there is need to improve coordination between the Ministry of Nature Protection, the focal institution for NEAP, and the Glavgidromet, the focal institution for the UNCCD and the agricultural ministry and the planning agency.

34. Uzbekistan has adopted the "Program of Actions on Environment Protection in the Republic of Uzbekistan for 1999-2005."However, a major weakness is lack of strong policy and legislative underpinning and limited implementation enforcement and management capacity. Box 3 gives an overview of environmental laws. The main challenges for environmental policy in Uzbekistan are:

- Irrigation and rural water management, including provision of safe drinking water.
- Rural energy management to check deforestation through renewable energy development.
- Urban and industrial waste management, pollutants affecting quality of water, including trans-boundary aspects of pollution.
- Environmental health protection.
- Eco-friendly tourism $\hat{\&}$ biodiversity preservation.
- Improving natural resource management and combating land degradation.
- Mainstreaming environment management.

Box 3: The Uzbekistan Environmental Laws

The main act regulating environmental relations is the **Law of the Republic of Uzbekistan on the Protection of Nature** enacted on December 9, 1992. The Law establishes a legal and organizational framework for preserving the environment; rationally using natural resources; protecting ecological systems, natural complexes and individual bodies; and guarantees people's right to a favourable environment. It aims to ensure a stable development of the Republic of Uzbekistan as regards environmental protection and social security, including preservation of biological diversity, people's health and cultural heritage. The Law defines the fundamental principles of nature protection and the powers of public agencies and departments.

The Law of the Republic of Uzbekistan on State Sanitary Surveillance was enacted on July 3, 1992. It regulates public relations in ensuring people's sanitary and epidemiological safety, guarantees their right to a favorable environment, defines sanitary requirements to various economic activities, and bans activities abusing sanitary standards, norms and rules as well as having a negative impact on the environment.

The Law of Uzbekistan on Water and Water Use was enacted on May 6, 1993. It regulates water relations, rational water use for domestic and economic purposes, water protection against pollution and depletion as well as consumer and citizens' rights in this area.

The Law of the Republic of Uzbekistan on Especially Protected Natural Territories was enacted on May 7, 1993. It defines a general legal, environmental, economic and organizational framework of the establishment, management and protection of unique natural ecosystems.

The Law of the Republic of Uzbekistan on the Protection of the Atmosphere was enacted on December 27, 1996. It regulates the activity of public agencies, enterprises, institutions, public associations and citizens in the area of protection of the atmosphere. The Law aims to preserve the natural composition of the atmospheric air as well as to prevent and reduce the harmful chemical, physical, biological and other impact on it. Uniform quality norms are being established throughout Uzbekistan for assessing the condition of the atmospheric air. Standards of atmosphere protection are being introduced, which determine its protection regime and methods of monitoring its condition as well as other protection requirements. The Law introduced compulsory charges for polluting the atmosphere.

The Law of the Republic of Uzbekistan on the Protection and Use of Fauna was enacted on December 26, 1996. It regulates relationship in the area of protection, use, restoration and reproduction of wildlife to ensure conditions for its existence, preservation of species, and integrity of the natural communities and habitat. The law established that wildlife is state property protected by the state.

The Law of the Republic of Uzbekistan on the Protection and Use of Flora was enacted on December 26, 1997. It regulates relationship in the area of protection and use of vegetation growing under natural conditions as well as wild plants cultivated for their reproduction and preservation of their genetic fund. The Law says that vegetation is state property protected by the state.

The Laws: On forest, On ecological expertise, On radiation safety and Land code of the Republic of Uzbekistan have been also enacted.

Enactment of aforesaid and other laws was accompanied by the adoption of regulatory acts refining law provisions. The Government has passed decrees regulating the use and protection of various types of natural resources and containing provisions, rules and instructions to this area. Abuse of nature protection entails criminal, administrative, civil (financial), disciplinary and property amenability, which is reflected in the Criminal Code, the Administrative Code, Civil Code and the Labour Code of the Republic of Uzbekistan.

Apart from that, environmental acts contain specific norms of environmental amenability not included into the aforesaid types of legal amenability.

Source: Uzbekistan Country Situation Paper.

E. Agricultural Policies

35. <u>Issues facing the agricultural sector</u>. Uzbekistan's agricultural sector is characterized by a production system which responds to two main policy objects: maximize cotton production as a crucial earner of foreign exchange²⁷ and intensive production of wheat and other food crops to ensure national

²⁷ Cotton alone accounts for approximately 45% of merchandise export revenues.

food security. The problem is continuing resort to unsustainable cultural practices and inefficient and excessive use of irrigation that have compounded the land degradation process. There still persists a policy bias which views agriculture's role being to provide resources to be invested in other sectors of the economy. The major constraints to raising productivity and sustainability of agriculture are: (i) constrained farmers' incentives to improve production and productivity; and (ii) the deterioration of the production base due to lack of incentives and funds for proper operation and maintenance and rehabilitation of irrigation and drainage; (iii) inadequate attention to issues of land degradation and declining soil fertility; and (iv) lack of adequate attention to dry-land resource management issues which gain some prominence only in times of severe drought, such as the one which affected the Republic of Karakalpakstan in 2000.²⁸

36. Uzbekistan's approach to rural reform represents a mixture of partial reforms and administrative measures, with a strong bias towards the latter. Market-oriented reforms introduced to date in the agricultural sector have been limited to the following:

- Distribution of small plots of land to households (about 10 per cent of arable land had been distributed to over 3.3 million constituencies by the end of 1999).
- The privatization of most livestock farms (with 80 per cent of cattle now in the household sector).
- The elimination of state orders on agricultural products, with the exception of cotton and grain.
- The transformation of most state farms into collective farms.
- The introduction of various, mostly formal, changes in the structure and organization of collective farms (in an effort to enhance the sense of ownership on the side of their workers).
- The adoption of a Land Code.

The incomes and supply response of the agriculture sector demonstrates that the reforms have not 37. been sufficient to stimulate agricultural growth. Overall, agriculture dominates the employment structure. with the share increasing to over 50 percent of the total, depending on the season. Given the large numbers of agricultural workers, average wages have fallen since 1992, with the average wage in 1998 being only 52 percent of the average national wage, compared to 113 % in 1992. In contrast, industrial wages in 1998 were 145% of average industrial wages. This represents a substantial drop in the real income in rural areas.²⁹ The administratively enforced increase in the area planted to wheat and the system of State orders on cotton and grain (the state procures almost all cotton output and more than half of grain output at prices well below the world prices) may have had a mixed impact both on the agricultural production and on the living standards of the rural population. The threefold increase of the wheat area, combined with a doubling of yields, resulted in a six-fold rise in the wheat production in the years 1992-1998 and largely ensured Uzbekistan's self-sufficiency in grain. The system of state orders on cotton and grain has been the main channel through which resources are being redistributed from the agricultural sector to other sectors of the economy. The gross transfer of resources through this channel, mostly to import-substitution industries, was estimated at more than 10 per cent of GDP in 1998, of which about 5 per cent was compensated through various subsidies provided for agriculture. The resulting ret implicit taxation of the agriculture sector³⁰ is the primary reason behind the continued deterioration of the financial position of state and collective farms, the continuing degradation of the irrigation system, the

²⁸ Due to lack of water for irrigation, rice, vegetable, and fodder plants were destroyed, with total damage assessed by the ADB mission at over Sum 14 billion.

²⁹ UN Resident Coordinator System, *Common Country Assessment of Uzbekistan*, 2001, p.12-13.

³⁰ The net transfer from agriculture is large, and was estimated to be at least \$ 830 million at the official exchange rate (The World Bank, Project Concept Document, Uzbekistan Drainage Project, December 2, 1999).

sustained decline in cotton yields and exports, and the considerable worsening of living standards in rural areas during recent years.

38. The Government adopted a number of reforms in the short-term (1998-2000): First, to maintain the present human and physical infrastructure of the largest collective farms (kolkhozes) in order to: (a) permit continued large-scale cultivation of cotton and wheat (the country's two strategic crops) on about 30% of the irrigated area and (b) ensure continued employment, minimum living standards, and social stability among the already large and increasingly youthful population in the rural areas - until other sources of employment have been developed. Second, to improve the incentive and institutional framework for increased output by these collective farms by 'restructuring' them into cooperative firms, enterprises, or shirkats. And third, to strengthen the legal and enabling environment for private farms (larger than 10 ha.) and for small dekhan farms, which already produce most of Uzbekistan's dairy products, fruits, vegetables, and other food crops (with little or no government involvement) and approximately 15 percent of its cotton output. Annex 3 provides some more details of the farm-sector reforms. However, many weaknesses persist. The former sovkhozes and kolkhoses (FSK) have transformed into shirkats, and in some areas the FSK have been transferred to smaller separate farming entities-dekhan farms and private farms. On farm infrastructure remains largely operated by the shirkat, often with informal agreements with other farmers in the hydrological unit. The depressed state of the agricultural economy in recent years has led to shortfalls in funding and a lack of routine O&M which has exacerbated problems such as waterlogging and salinization, further depressing cotton yields and therefore returns. Farmers have limited experience with independent decision-making regarding their operations and will need time and support to develop the confidence to take over effective control of irrigation and drainage systems. However, the Government has undertaken some experiments with the introduction of water user associations (WUAs), which would provide an important model for wider replication. The crucial issue is how to promote an incentive framework which would stimulate a high supply response, and lead to environmentally sustainable agricultural production. In the current policy environment, there is risk of perverse incentives leading to land mismanagement and inefficient on-farm water management There is also lack of adequate attention to dryland resource management issues which gain some prominence only in times of severe drought, such as the one which affected the Republic of Karakalpakstan in 2000/2001.

39. The Government's longer-term agricultural policy reforms aim to be further deepened to strengthen agricultural incentives by (i) phasing out state orders and liberalizing markets for cotton and wheat—paralleling earlier developments in markets for most other agricultural commodities, (ii) phasing out subsidies for agricultural inputs and state participation in the direct distribution of agricultural inputs and liberalizing distribution and trade, (iii) distributing land under long-term leases to individual farmers or groups of farmers, (iv) promoting the efficient use of irrigation water and cost recovery, and (v) increased State procurement prices for cotton and wheat. The program also envisages strengthening of support services for agriculture, including targeted support to cotton producers in improving the quality of Uzbek cotton for export, and overall improvement in research, extension and credit services available to farmers. The Government also proposes to establish rural business advisory centers to support shirkats and private farms. In the above context, a significant recent positive policy development is the "Decree on Agricultural Reform", which was signed by the President of the Republic of Uzbekistan on March 24, 2003.³¹ The Decree is intended to "implement proper market-market-based management structures in agriculture, [and to] broaden the independence and secure the legal protection of agricultural producers." The existing system of leasing land and contracting with producers is to be expanded. As of 2004, all collective farms and other agricultural units are to be transferred to the leasing system. The policy of state-determined procurement targets for grain and cotton will remain, but the types of crops to be grown will be determined on the basis of contracts with procurement organizations. Units of agricultural

³¹ Uzreport.com –source: RFE.

producers are supposed to manage their own resources, and government distribution of resources is to be abolished. The decree is officially described as ending the command system in the agricultural sector, but a number of Soviet style features will be retained, including state procurement and an emphasis on collective rather than individual farming.

40. The main areas of continued policy dialogue aimed at supporting the ongoing governmentsponsored restructuring process are:

- (a) the gradual and ultimately complete liberalization of input and output prices and services;
- (b) the interface between shirkats and private farms, specifically the emerging competition for land, water and other resources between the increasingly commercialized shirkats and existing or new private farmers; and
- (c) exchange rate reforms, since the prices the farms are paid for producing cotton are expected to improve significantly once the overvalued official exchange rate is unified at the market rate.

F. Water Conservation Policies

41. From the perspective of combating land degradation, water resource management policies play a crucial role. Water resources management requires tackling a wide range of issues, none of which has straight forward solutions:

- Irrigation water use efficiency issues.
- Domestic water distribution issues.
- Freshwater and potable water supply.
- Regional water sharing policies.
- Issues of water pollution.

42. Main waterways of surface runoff of the Aral Sea basin are the Amudarya river with mean longterm annual runoff - 73.5 km³ and the Syrdarya river – 38.8 km³. However, the portion of water resources, which are formed on the Uzbekistan's territory, constitutes only 10% of the total runoff. To regulate river runoff 39 water reservoirs were created in Uzbekistan with total capacity of 57.5 km³, out of a total of over 60 water reservoirs in the entire Aral Sea basin. The portion of water resources for Uzbekistan constitutes 72.4 km^{3,} including 61.1 km³ for irrigation. ³² The actual water use in Uzbekistan in 1990 amounted to 58.58 km³ (53% of total water use in CARs). Of this, water used for irrigation amounted to 53.42 km³, or 91% of total water use in Uzbekistan. Another 45.00 km³ consisted of sewage collector and drainage waters (CDW).³³ Uzbekistan's underground water resources. However, approved operational reserves amounted to 6.78 km³. Uzbekistan adopted in 1993 the law "About Water and Water Use", which regulates rational use and protection of waters and other activities connected with their use inside country.

43. Water use inefficiencies are attributable to a number of factors - deterioration of storage and irrigation infrastructure involving water losses, weak on-farm water management and conservation

³² Agreement of cooperation in the field of joint management, use and protection of water resources of inter-state sources" from 18 February 1992, Almaty city. Source: Uzbekistan: Country Situation Paper.

³³ Regional Environmental Action Plan (REAP) for Central Asia, p. 42.

frameworks, primary and secondary salinization due to wind and water erosion, water-intensive cropping patterns and absence of a strong regulatory system of incentives and dsincentives to promote water conservation. The challenge for policy makers is how to move simultaneously on (i) implementing reconstruction of irrigation and collector-drainage networks, (ii) improving technology and watering technique with due regard for population and water consumption of other sectors of national economy, (iii) and improving water use efficiency keeping in view the projected increase in water consumption to 85.6 km³ in 2020. The enormity of the challenge is brought out in Table 3 on the dynamics of a number of factors influencing water use in Uzbekistan.

Indices		Ŋ	ears	
	1970	1980	1990	2000
1 Population (billions)	11,8	15,8	20,3	24,8
2 Total water consumption (km/cube)	47,3	65,8	52,4	48,1
Including (?/???/per capita)	4008	4164	2581	1963
3 Agricultural water consumption (km/cube)	42,0	61,7	44,4	44,4
4 Area of irrigated lands (thousands of sums)	2640	3517,7	4221,8	4277,6
Including per capita (ha)	0,22	0,22	0,21	0,17
5 Specific water off take for irrigation (m/cube/ha)	15909	17540	10517	10380
Source: Uzbekistan: Country Situation Paper.				

Table 4: Dynamics of Population, Irrigated Lands and Water Consumption in Uzbekistan

G. Evolving a cohesive strategic framework to combat land degradation

44. The Government's gradual approach to policy reforms somewhat blunts the objective of evolving a coherent policy mosaic. The Government is conscious of this and working on elaborating a strategy-2010 framework, though its road map is not yet fully articulated. There is however need to initiate work on the main building blocks of a strategic framework to combat land degradation:

- (i) At the level of policy, the most urgent and complex issue is the construction of a system of incentives and disincentives to prevent wasteful use of land and water resources and adoption of pro-conservation practices. The principle of "*pollutant must pay*" is accepted but there are weaknesses in enforcing compliance. Policy incentives should be preferred to direct support in the form of administered prices, subsidies or production targets.
- (ii) The agricultural and land use policies often work at cross purposes and issues of land degradation are at the margins of the policy agenda. This would be avoided if land degradation/desertification, land and water conservation concerns are integrated into the overall development strategic framework. The trade-offs between different policy options such as the objectives of water use efficiency and maximizing cotton production need to be squarely confronted and contradictions between the conflicting objectives resolved.
- (iii) Part of the solution may lie in research and technology development. For instance, emphasis should be on development and diffusion of water-saving techniques, and technologies of irrigation, accumulation and retention of moisture and its rational use. There is also need to conduct an environmental and agro-chemical zoning of the cotton-

growing; introducing crop rotation practices to replace mono-culture, studying deflation and erosion processes in order to develop preventive methods; and research on designing land reclamation techniques and use of saline water. Uptake and application of such techniques is not just a question of adequate financing, but also of systemic changes to provide incentives to producers to change their cultural practices.

45. At the institutional level, the Uzbekistan NAP proposes that it would be useful to separate the regulatory functions from those of natural resource management. For instance, "considering the great importance of land as a natural resource, the land surveillance service, along with the land use inspection, have been separated from the Ministry of Agriculture and Water Resources. On their basis was established the State Committee for Land Resources subordinated directly to the Cabinet of Ministers." The NAP proposes that the same should be done in the field of water resources management.³⁴ To this end it suggests that it is necessary to:

- Strictly divide responsibilities between various governmental institutions involved in nature use and strengthen the role of local authorities and communities;
- Delegate more managerial functions in environmental protection and use of natural resources from the centre to local authorities. However, decentralization of management to the regional level does not mean the transfer of powers, it primarily implies the rights and duties of local bodies established by law and aiming to secure economic stability coupled with a sustainable socio-economic development of the region;
- Apply the basin approach (establishment of basin inspections, etc.) on a wider scale to raise the efficiency of protection and wise use of water resources (including transnational water resources);³⁵
- Develop a system of specialized environmental procurator's offices and environmental police in order to improve the effectiveness of public control and promote nature protection, which should be singled out into a separate law enforcement area;
- Involve the general public in discussions, decision-making and implementation of environmental interventions, especially at the local level;

46. Evolving a cohesive strategic framework to combat land degradation can best be handled as an integral part of the government's development planning and budgetary process – an issue which underscores the crucial need for mainstreaming of UNCCD implementation, which was discussed in the previous section.

V. Priorities and Programs to Combat Land Degradation

A. Priorities of the Government to combat land degradation

47. The NAP provides fairly incisive insights on the technical issues which need to be investigated more fully to evolve into project activities to access grant funding. The priorities listed in the NAP are summarized in two tables in Annex 4. The list to some extent reflects the fact that the NAP is the product of the work by leading scientists and experts from research institutions. Translating this into a plan for action is a challenging task, given the lack of capacity for programming and project conceptualization and development in the focal institution. For ease of reference, the priorities to combat land degradation/desertification may be grouped into the following main priority areas:

³⁴ The Uzbekistan, NAP/CD, p.114-115.

³⁵ The watershed development approach is equally applicable to large river basins and smaller catchments/ hydrological units.

- Establishing systems of desertification, salinization and drought monitoring, and consolidating network of data collection, assessment and early warning.
- Preventing soil erosion caused by wind and water, including salinzation control.
- Promoting a comprehensive use of water catchments areas (water basins development approach), improving irrigation and drainage systems, and emphasis on water conservation.
- Improving soil fertility and land use, with emphasis on applied research and technology, much more than on socio-economic and institutional constraints to technology uptake.
- Rehabilitation of degraded lands in the Aral sea littoral area, including reforestation.
- Improving the degraded rangelands, pastures and hay fields, with emphasis on karakul sheep breeding rangelands of Uzbekistan.

Priority Projects from the perspective of the CCD- Focal Institution

48. The Domestic Consultant was requested to provide, in consultation with the NFP-CD, a short list of project briefs reflecting the main priority areas. These are given in Annex 2. The proposals are summarized in table 5. The proposals focus mainly on research and contingent on grant assistance in the range of \$ 15-30, 000 from donor agencies. The selection of project ideas highlights three main issues:

- (i) the proposals are focused mainly on the research agenda of the focal institution;
- (ii) the emphasis is on technical assistance and not on investment projects with more direct impact on controlling are preventing land degradation;
- (iii) an inter-agency and cross-cutting approach seems to be missing in the selection process; and (iv) a wider net should be cast to select projects with potential for GEF financing.

Project Title	Location	Implementing Agency &	Project Description
		Contact Person	
Autonomous Solar	To be determined	Technology Transfer Agency under the State Committee for Science and Technology of the RU G.Sh. Rashidova	This project intends to establish an autonomous solar power system (ASPS) at one of the facilities to show advantages and peculiarities of such systems to potential consumers. The experience of establishing and operating an ASPS will permit to find a more effective strategy of dissemination of a new power engineering technology on a market- oriented basis
Designing action plan	Bukhara	Central Asian Research	Assessment of actual environmental state in
for establishing	province	Hydrometeorological	the Bukhara province: atmospheric air, soil,
desertification,		Institute (SANIGMI	surface and underground water, biota, farming
salinization and drought			lands, rangelands, desert forests, atmospheric
monitoring in the Bukhara province, the		G.A.Tolkacheva	precipitation (dry and wet). Designing expert forecast assessment of the desertification
Republic of Uzbekistan			development processes. Developing a
			programme for arranging desertification,
			salinization and drought monitoring. Selecting
			and justifying nature protection measures,
			requiring priority investment
Causes and	Bukhara	Bukhara State University	To develop scientifically grounded
consequences of	district		recommendations for combating
desertification in the		I.K.Nazarov	processes and types of desertification
southwestern Kyzylkum			with the aim of neutralization and

 Table 5: Briefs on Project Proposals from Uzbekistan

Project Title	Location	Implementing Agency &	Project Description
desert and its control		Contact Person	rehabilitation of initial biological and economical potential of the desert region with due regard for local geo-ecological conditions.
Studying the origin of secondary salinization of irrigated lands in the Zeravshan river delta and developing methods of their control in conditions of different water content of lands	Bukhara district	Bukhara State University U.Tajiev	To develop comprehensive soil and land reclamation accounting methods as well as methods of improving quantitative identification and monitoring of the environmental state of different forms of saline irrigated soils.
Environmental problems of developing irrigated farming in the Samarkand province	Samarkand province	Samarkand Agricultural Institute A.I.Alikulov	Theoretical and methodological designing proposals on the establishment and development of an environmentally balanced production structure of irrigated farming on farms as well as creation of an economic mechanism of its implementation in a market-oriented economy for the arid zone.
Selecting and zoning (planting) arboreal plants for protection against desertification in the Aral Sea littoral area	To be determined	Urgench State University R.A.Eshchanov	The scale and complexity of desertification- related problems necessitate selecting and zoning (with planting of 1000 pieces) of arboreal species of acacia (Rjdinia pseudoacacia), Canadian poplar (Populus canadensis) and torangyl (Populus pruiosa) in the part of the Khorezm oasis bordering on the desert area as well as planting (500 pieces) and zoning arboreal species in settlements of the province. These measures will produce the following feasible results: protection against desertification, halting soils salinisation, reduction in ground water table, protection against dust and salt storms, conservation of water resources due to lower evaporation in irrigated farming, removal of carbon dioxide from the atmosphere, regeneration of atmospheric oxygen and increase in natural forest resources.

B. Assistance to Uzbekistan from external donor agencies.

The World Bank

49. As of March 31, 2002, Bank/IDA commitments to Uzbekistan (cumulative and net of cancellations) totaled US\$534.1 million, of which US\$304.8 million, or about 57%, had been disbursed as of February 28, 2002, making the Bank the largest donor agency in Uzbekistan. The details of the World Bank's lending are set out in table 6. In addition, Uzbekistan has also ecceived five Institutional Development Fund (IDF) grants totaling US\$ 1.779 million for: (a) public procurement reform (Cabinet of Ministers); (b) improving economic data and statistics (Ministry of Macroeconomics and Statistics);

(c) economic policy analysis and training (Center for Economic Research); (d) pension reform (Ministry of Social Maintenance); (e) anti-monopoly and competition policies (Anti-Monopoly Committee, Ministry of Finance); (f) and institutional development for strengthening environment management (State Nature Protection Committee). The World Bank is also the implementing agency for 2 GEF financed regional projects: the [Aral Sea Basin) Water *and* Environmental Management project, approved in 1998; and the Central Asia Transboundary Biodiversity project, approved in 1999, for the Central Asian Republics, including Uzbekistan.

50. Even though none of the operations was funded explicitly to support the UNCCD implementation, some of these projects, such as the Cotton, water supply and rural enterprise support projects, listed in table 6, perhaps do address some aspects of the land degradation issues directly or indirectly. In this context, it may be noted that the World Bank's current Country Assistance Strategy (CAS-FY02-04) has as one of its objectives "to reinforce the maintenance and effectiveness of the country's irrigation and drainage infrastructure".³⁶ As for the volume of lending, the CAS envisions two lending scenarios: a *Low Case* of up to US\$150 million during FY02-04; and, if the macroeconomic and structural reform process accelerates, a *Base Case* of up to US\$350 million during the same period. The pace of policy reforms is an important issue which would condition future aid flows to Uzbekistan from the international donor community in general.

	(as of April 2002)	-	-
Fiscal Year	Purpose	Amount (US\$ M)	Closing Date
1994	Institution Building & Technical Assistance	21.0 ^a	Closed
1995	Rehabilitation Loan –foreign exchange to finance critical imports.	160.0	Closed
	Cotton Sub-sector Improvement Project	66.0	06/01/02
1998	Water Supply, Sanitation & Health	75.0 ^b	12/31/05
	Tashkent Solid Waste Project	24.0°	12/31/03
	Enterprise Institution Building TA	28.0	12/31/03
1999	Health (strengthening primary health care services)	30.0	06/30/03
	Financial Institution Building	25.0	06/30/04
2000	Urban Transport	29.0	06/30/04
2001	Rural Enterprise Support	36.1	07/31/06
2002	Bukhara/Samarkand Water Supply ^d	40.0	06/30/07
	Total FY94-02 (11 operations)	534.1	
	of which disbursed	304.8	(57%)
	ncing from European Union (\$ 2.6 million) and Japan (\$ 1 million	·	
^b Plus co-finan	cing from Kuwait Fund (\$ 19.8 million) and KfW/Germany (\$9.4	million)	
	cing from EBRD (\$21million)		
^d \$ 20 million	is IBRD loan and \$ 20 million is IDA credit		
Note: Uzbekis	tan joined the World Bank and IDA in September 1992.		
Source: The W	Vorld Bank Resident Mission General Handouts and World Bank	Country Brief	

Table 6. World Bank/IDA	Commitments in Uzbekistan
(or of A	nril 2002)

³⁶ The World Bank pipeline of projects under preparation includes 2 irrigation/drainage projects: (i) Karshi Pumping Cascade Rehabilitation project and (ii) Drainage project to solve drainage water disposal problems of the Amu Darya with a view to control river salinity.

The Asian Development Bank (ADB)

51. As of 31 December 2000, ADB's cumulative lending to Uzbekistan consisted of 8 loans for 7 projects for a total amount of US\$ 385 million, of which cumulative disbursements amounted to US\$ 78.8 million (or 20.5%) –see table 7 for details. ADB also approved 30 TA projects for a total amount of \$ 17.7 million. At the end of 2001, the lending had increased to a total of 459 million for 9 projects, and 35 technical assistance projects for a total amount of US\$ 20 million³⁷ -- transport and communications sector (41.4%), social infrastructure (29%), agriculture and natural resources (18.7%) and Finance (10.9%). Co-financing arranged for Uzbekistan from 1 January 1997 to 31 December 2001 comprised two loan projects with an official cofinancing amount of US\$62.0 million- \$57 million for Senior Secondary Education project and \$5 million for Railways Modernization project.

52. Apart from policy reforms, the pace of ADB lending has also been affected by the issue of Uzbekistan's slow absorptive capacity due to its weak project management capability and inadequate experience with ADB's operational policies and procedures. For instance, the contract award ratio in Uzbekistan during 2000 was only 10.5 percent as compared with ADB-wide average of 20.5 percent.³⁸

53. The ADB projects under implementation are focused on infrastructure, education and enterprise development, with none addressing the land degradation issues (see table 7 below). However, in the 2001-2004 pipeline, there are 4 projects which would indirectly contribute to the cross-cutting rural development objectives of the UNCCD, even though they may not directly address land degradation concerns. These are: (i) Ak Altin Agricultural Development (\$ 36 million); (ii) Rural Savings and Credit Union Development (\$ 10 million); (iii) Grain Productivity Improvement (\$ 16 million); and (iv) Water Resources Management (50 million). The projects which are still at design stage can be influenced to enhance their linkages with the UNCCD. The prospective lending level during 2002-2004 is within the range of \$ 130 to \$ 280 million.

54. In the ADB's TA projects, there are three projects which are somewhat more directly, albeit implicitly, concerned with land degradation issues:

- (i) TA # 2859- Strengthening of institutions engaged in Environment Protection (approved 09/97-\$ 67500 financed by JSF);
- (ii) TA # 3706- Institutional Support for Sustainable Agricultural Development (approved 08/01- \$ 600,000);
- (iii) TA # 3828- Aral Sea Drought Relief (approved 01/02, \$150,000 for project preparation).

55. The main challenge in enhancing linkages between these projects and UNCCD/NAP is that since the above TA projects as well as pipeline loan projects lie with the ministries other than the UNCCD Focal Institution (GLAVGIDROMET), it needs a more proactive role on the part of the NFP-CD to contact the concerned executing agencies to see if some of the NAP activities can be linked to (or covered by) these projects through some adjustments in the project design or scope. This is a litmus test to demonstrate how effective is the mainstreaming of the Convention.

³⁷ ADB URM, Quarterly Newsletter No. 1, 2002, and www.adb.org/URM.

³⁸ ADB, Uzbekistan Country Strategy and Program Update (2002-2004), 10 August 2001.

Year	Purpose	Amount (US\$ M)	Closing Date
1996	Rural Enterprise Development	50.00	Jun-02
1997	Basic Education Textbook Development	20.00+18.25 ^a	Jun-03
1998	Railway Rehabilitation	70.00	Dec-03
	Road Rehabilitation	50.00	Jun-03
2000	Senior Secondary Education	57.00	Jun-05
	Railway Modernization	70.00	Dec-05
	Small & Medium Enterprise development	50.00	Mar-06
Total 1996-00	(7 projects)	385	
of which disbur	sed	79	(21%)
^a ADF, rest of lo	ans from OCR (ordinary capital resources).		
Source: ADB, C	SP Update (2002-2004, table A3.2, Appendix 3. ³⁹		

Table 7. ADB Operations in Uzbekistan(as of 31 December 2000)

Global Environment Facility (GEF)

56. The current project portfolio of GEF includes 5 in Uzbekistan and 3 regional projects. However, none of these are related to UNCCD or land degradation, except for the regional project - Water and Environmental Management in the Aral Sea Basin – which though within the focal area of international waters, addresses the issues of land degradation (see Annex 5 for ongoing GEF projects in Uzbekistan). It is, however, expected that with the land degradation having been designated as a GEF focal area, the NFP-CD would make effort to identify national projects related to land degradation which would qualify for GEF financing. There is however need for support from donor agencies and GM to assist the Government in these efforts.⁴⁰

<u>UNDP</u>

57. The second country cooperation framework (CCF) for Uzbekistan for 2000-2004 is based on the following main priorities: (a) political liberalization, which includes promoting the participation of civil society, developing non-governmental organizations (NGOs), and advancing human rights; (b) governance and administration, with the aim to continue the administrative-reform process, promote self-governance, and foster human-resource development and capacity-building; and (c) economic liberalization, which includes taking measures to reduce government regulatory functions, to advance institutional and legal reform, and to develop small- and medium-sized enterprises (SMEs). GM/NFP-CD may perhaps seek to persuade UNDP to appropriately included UNCCD as a priority area in the context of the CCF. The UNDP assistance is particularly useful through its two main sets of programme tools: (a) policy advice and advocacy; and (b) institution-building and capacity-building.

³⁹ In May 2002, the ADB approved a loan for \$ 38.00 million for the Western Rural Water Supply Project in drought affected Karakalpakstan and Khoresm regions, as part of the initiatives being prepared by the international aid agencies under the Government's Aral Sea Drought Relief Program – URM Newsletter No. 2/ 2002.

⁴⁰ It may be mentioned in this context that UNDP- Uzbekistan has a cell under Mr. Mark Anstey, UNDP/GEF Advisor which is exploring innovative ideas and proposals for GEF pipeline. He is being assisted in these efforts by a consultant, Mr. Philip Tortell, Environment Program CTA. The NFP-CD and the National Focal Point for GEF are both located in the SANIGMI and this should help coordinate their efforts to identify project in land degradation focal area for potential GEF financing.

Support to UNCCD implementation from SPA partners

58. Germany (GTZ) is providing support, under the Strategic Partnership Agreement framework, through the GTZ-CCD-Project: "Support of selected Pilot-Projects for poverty alleviation and combating desertification in Central-Asia". This pilot project is located in the Buchara-District of Uzbekistan. It aims at stabilizing the land use system of the disadvantaged rural population in the Buchara District by supporting the creation of an early warning system against drought. The project, initiated in June 2002, is designed to promote community participation and to strengthen the capacity of the rural population to utilize the early warning system against drought in order to stabilize their land use system. Moreover, 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.

59. Canada's contribution to the SPA partnership will focus on the synergy between climate change and desertification through funding opportunities presented by the South Europe/Central Asia Climate Change Support Fund, especially in the areas of adaptation to the adverse effects of climate change and carbon sequestration. Pilot projects for this purpose are yet to be identified in Uzbekistan.

60. Canada is working with McGill University toward the establishment of a Water Management Training Centre in Central Asia to target several of the key tension points identified around water scarcity in the region. CIDA is contributing \$1.8 million to this project, which focuses on various levels: *policy*, through study tours by high-level government officials; *management*, through seminars and short courses that promote integrated water management and cooperation; and *technical*, through courses that address the specific needs of technical staff, such as ecosystem management, on-farm water management, water pricing and cost recovery, water users' associations, and water laws.

61. Switzerland is anticipated to join SPA. The Swiss Development Cooperation (SDC) has funded a project "Integrated Water Management in the Fergana Valley", which addresses issues of direct relevance to controlling land degradation.

62. IFAD, also anticipated to join SPA, has financed a research project "Integrated Feed and Livestock Production in the Steppes of Central Asia", which is being implemented by ICARDA. The research outcomes would contribute to combating the problem of declining productivity of animal feed production in Uzbekistan and other CARs.

63. ICARDA is also expected to join SPA. It is supporting a number of agricultural research activities in the CARs. For instance, Uzbekistan, as part of GTZ/CIMMYT project, and ICARDA support, is engaged in on-farm testing and seed development programs aimed at higher yields or considerable savings on inputs and labor.⁴¹

64. According to the GM-FIELD database, a number of other donor projects in Uzbekistan were supportive of UNCCD implementation. This information is summarized in table 8 below:

⁴¹ Dr. Paroda, Head, CGIAR-PFU, Tashkent: Annual Report (2001-2002) on CGIAR Collaborative Research Program for Central Asia and the Caucasus.

Japan	Forestation for water runoff control (1998)	US\$ 58,669
UK	Support for Bulungur Private Farmers Association	\$ 1,192,200
USA	Environmental Demonstrations of Biological Drainage and Commercial Forestry	\$ 120,000
EU	On-farm Irrigation & Management Project – Phase 1 (1998)	\$ 972,424
	Prevention of Land Degradation in the Aral Sea Region Undergoing	\$ 587,855
	Disastrous Desertification by Increasing Tolerance of Symbiotic Nitrogen Fixation (SNF) to Salinity (2002 – 2003)	
UNDP	National Action Program Project (1998 – 2000)	\$ 50,000
	Shelter belts (1998)	\$ 108,907
Source: GM	A-FIELD Data Base	

Table 8. Other donors' projects supportive of UNCCD

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

65. In the context of UNCCD/NAP, there has been little thought given to regional or sub-regional programs. In general, Uzbekistan has been not very enthusiastic on such sub-regional/regional programs. The UNDP 1999 Country Review noted in respect of regional policy dialogue "that very minimal progress had been made, the Government decided at the time that it would be preferable to address the issue of promoting regional dialogue on more country-specific basis."

A number of donor agencies have provided technical assistance to strengthen regional 66. 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 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. As listed in Annex 5, GEF has in its portfolio the following two regional projects which also include Uzbekistan. These are :

- Water & Environment in the Aral Sea Basin (ASBP), approved in May 1997, and being implemented by the World Bank, which has been discussed in Part IV. 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.

VI. Issues & Opportunities in implementing UNCCD in Uzbekistan

A. Obligations to support UNCCD/NAP under the Convention

67. This Part pulls together the main conclusions from the extensive review and discussion in the preceding Parts on the progress, problems and the issues constraining effective implementation of the UNCCD in Turkmenistan. 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 4 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. It also obligates the developed country parties to assist the developing countries in these efforts.

Conclusion no. 1: It is *bserved that implementation of a number of programs included in* Uzbekistan's NAP framework is held up for want of financial resources. Notwithstanding prevailing tight budgetary situation, the Government has an obligation under the CCD to provide appropriate resources for the implementation of the Convention. This situation needs to be reviewed at senior levels by the Government to make necessary financing from domestic resources available for the priority programs to combat desertification. As for the development partners, a limiting factor is the absence of an overall strategic framework of the type provided by a national poverty reduction strategy framework. Many donors are also reluctant to increase their aid commitments because of slow progress on policy reforms. Even so, there is a strong rationale for the multilateral and bilateral donors to finance activities which are directly or indirectly supportive of UNCCD objectives through a **conscious support** to UNCCD through the NAP framework. This might provide a good entry point to help trigger policy dialogue on policy issues which relate to sustainable management of ecology and environment.

Box 4: 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 underlying root causes of land degradation

68 "Land degradation" is a complex phenomenon involving 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. The Uzbekistan NAP discusses a number of areas which need deeper study or investigation. A number of briefs for proposed research projects, received from the Domestic Consultant are given in Annex 2 and summarized in Table 5. The priority areas requiring TA support for research or study on selected pilot basis would need to focus on:

- monitoring systems for wind and water erosion processes, and trends in deforestatation and over grazing;
- methodologies of participatory impact assessment of land degradation control and prevention measures;
- best practices for improvement of pastures and fodder productivity in arid and drought prone areas;

- shifting from water-intensive mono-culture to water conserving mixed cropping technical packages;
- salinization control and techniques to use secondary saline water for agriculture;
- socio-economic research on incentive systems to promote uptake of improved technologies by rural communities.

Conclusion no. 2: Considering the funding constraints, and the large number of competing proposals for technical assistance, it is suggested that priority should be established on the basis of criteria which give preference to down-stream areas of applied research or study with value-added for technology up-gradation, on-ground solutions, or efficient resource conservation. The prioritization process should also take into account: the biophysical dimensions of a particular problem, the number of people (especially the poor) affected, institutional feasibility, and comparative benefit cost considerations of competing alternatives.

C. Institutional factors constraining the implementation of NAP

69. The factors constraining the implementation of NAP were discussed in detail in Section B. of Part III and a number of suggestions to strengthen the NAP and its operational content were discussed. It was emphasized that a three-pronged approach, comprising mainstreaming, participation and operational orientation (see box 2), was needed to revitalize the implementation of the UNCCD. Conceptually, there are four basic institutional constraints to the implementation of NAP:

- (a) NAP lacks the status of a formally recognized development program within the framework of the government's planning and budgetary processes and as such it does not have a distinct budget sub-head to facilitate allocation of budgetary resources on a systemic basis.
- (b) The National Focal Point is not a Government designated position, but merely a designated function assigned to one of its Officers by the focal agency in addition to the substantive functions of that Officer within that agency. There is need to provide an official status to the position of NFP, possibly with some appropriate incentive, as the task manager of an important international convention and as the secretariat of the National Coordinating Body (NCB) of the Convention.
- (c) The NFP does not have adequate equipment, staff or resources, and lacks the capacity building support to have a meaningful interaction with the international donor community or to prepare program proposals to access funding support from these agencies.
- (d) The implementation process of NAP is not sufficiently mainstreamed to the policy making organs, coordinated with other concerned government ministries, and decentralized to the local government authorities. It does not involve, except on an ad hoc basis, the NGOs and Civil Society stake holders to give to the Convention and its Action Program a broad spectrum of ownership. It also needs to exploit synergies with other environmental conventions and NEAP through establishing a joint work program through collaboration between the respective NFPs.

Conclusion no.3: There are number of institutional and capacity constraints underlying the slow progress of implementation of the CCD/NAP. Actions needed to overcome these constraints could broadly be grouped as follows:

- (i) Strengthen the institutional status and capacity of the NFP/CD and of the inter-agency coordination mechanism official status, training, better equipped facilities and staffing, with particular emphasis on strengthening program identification, conceptualization and preparation capacity.
- (ii) Operationalize the NAP through a rolling action program for its implementation focused primarily on policy and programmatic content to serve as a basis of mainstreaming CCD, and especially the land degradation concerns, in the national development strategy, and reflecting the funding needs of its priority activities and projects, including those of other concerned agencies, into the national budgetary process. This would require aligning the timeline of the proposed annual rolling program to the national budgetary cycle.
- (iii) The rolling plan to be updated annually and overseen by the CCD Inter-Departmental Commission, should comprise policy actions and projects, which are crosscutting and not just confined to the Focal Institution's area of responsibility. Other Government ministries, such as Agriculture, Water Resources, Nature Protection, would be approached to provide their projects, which address land degradation issues for inclusion in the rolling Action Plan, to make the CCD NAP an inclusive mechanism for a more holistic approach to combating desertification/land degradation.
- (iv) Promote synergies between the environmental conventions. The NFPs of the conventions need to develop joint work programs to address inter-related concerns about land degradation and deforestation, preservation of ecosystem stability, functions, and services such as soil and watershed protection, carbon uptake and storage, water purification, climate regulation; and nutrient retention.⁴² Strengthening the programmatic content of the joint Work Programs would catalyze collaborative activities around concrete action areas. Mere emphasis on establishing formal administrative mechanisms, important as they are, would not be a sufficient condition to promote synergies. For this purpose, it is suggested that the Government may constitute a Working Group of the NFPs of the UNCCD, Biodiversity, Convention, Climate Change, NEAP and GEF, which may meet periodically to promote mutual collaboration around joint work programs
- (v) Strengthen participatory approaches for closer involvement of NGOs, Civil Society and local communities in the local area development projects to combat land degradation.
- (vi) The corrective actions mentioned above primarily rest with the Government of the Republic of Uzbekistan. However, the GM and its SPA partners may consider pumppriming these actions through policy dialogue, coupled with funding support to strengthen the capacity of the NFP and of the Focal Institution.

D. The policy and legislation related constraints

70. The Government has a distinct policy stance in favor of a gradualist reform strategy, which has to some extent blunted the flow of external assistance as well as foreign direct investment. However, the Government has addressed social policy issues – such as reforms in health, education, pensions and social

⁴² GEF draft OP # 15 emphasizes such joint work programs.

security, with much greater vigor. In the context of environment, and combating desertification, there is a realization of the challenge posed by land degradation to sustainable development and economic well being of the people. From the stand point of UNCCD implementation, this offers a good window of opportunity for a constructive policy dialogue.

71. The legislative changes are an evolving process and emphasis needs to be placed not so much on promulgating new laws as on strengthening the compliance and enforcement of the existing legislation, plugging the loopholes which dilute strict enforcement. Another critical area is the need to harmonize different laws to avoid overlapping jurisdictions, or inherent contradictions. From the perspective of UNCCD, particular attention needs to be paid to the issues of land and water user rights and regulating the functioning of participatory mechanisms, such as water users associations and credit unions. The laws are often 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.

Conclusion no. 4: The focus of the policy dialogue in the context of CCD implementation needs to focus on sectoral issues relating to agriculture, water resources and environmental sustainability. These issues should, however, form an integral part of the overall policy dialogue, which to some extent is constrained till a national strategy to improve living standards, on the pattern of PRSP, is evolved. From the perspective of land degradation, the crucial issue is how to devise a system of incentives and disincentives to encourage more sustainable and efficient use of crop lands, irrigation and pastures. In this context the March 2003 Decree on Agricultural Reform is intended to promote market-based management structures, and to broaden the independence and secure the legal protection of agricultural producers. The main areas of continued policy diabgue aimed at supporting the ongoing reforms are:

- (a) the gradual and ultimately complete liberalization of input and output prices and services;
- (b) the interface between shirkats and private farms, specifically the emerging competition for land, water and other resources between the increasingly commercialized shirkats and existing or new private farmers; and
- (c) the exchange rate reforms, since the prices the farms are paid for producing cotton are expected to improve significantly once the overvalued official exchange rate is unified at the market rate.

E. Constraints to effective program development and implementation

72. The main constraints are common to all the Central Asian Countries. These may be summarized as follows:

- The NAP is thin on policy and program content, with little attention to investment needs in sectors such as agriculture, irrigation or drainage, or land reclamation.
- 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 of 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 to work in isolation and at times at cross purposes.

73. The approach to tackle these constraints may involve actions somewhat along the lines already discussed in Section C. The following two additional points build upon the discussion in that section:

- (i) 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 need to develop translation facilities from Russian so that the project proposals can be submitted in English to the interested donor agency missions for there consideration.
- (ii) The Focal Institution and the NFP should also be in a position to leverage other agencies' programs to address land degradation concerns by providing them with substantive advice or concrete written proposals to incorporate in the project design. This would be particularly relevant in order to influence the programs/projects in the pipelines of IFIs, which are in an early design stage. In the above context, the National Focal Point/CD 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.

Conclusion no. 5: The programmatic content of the NAP needs to be better developed and presented in order to access both domestic budgetary resources and external aid resources, both of which are in short supply. In the immediate to medium term (2003-2005), technical assistance/grant financing, even in modest amounts could help improve capacity and jump start some participatory pilot projects to address land degradation problems specific to particular locations, with special attention to the Aral Sea region, especially the poor and drought prone Karkalpakstan. As for the investment needs, priority may be given to two areas: (a) Reflecting land degradation concerns in projects already in the pipeline of IFIs but in early design stage – such as irrigation and drainage, agricultural or rangelands and forestry projects; (b) synergistic projects with other environmental conventions focused on land degradation which would meet GEF criteria. In summary, action to access external financing is needed at two levels:

- (i) to develop a credible program which is approved by the Government as part of its public investment program and which focuses on preventing or controlling land degradation; and
- (ii) to evolve a structured mechanism for policy dialogue with development partners on environmental and land degradation related issues and actions, so as to build partnerships to mobilize their technical and financial assistance.

F. The possibilities of greater GEF involvement in land degradation

74. A new window of opportunity has opened with the amendment to the GEF Instrument "to designate land degradation, primarily desertification and deforestation, as a focal area, as a means of enhancing GEF support for the successful implementation of the UN Convention to Combat Desertification." In order to avail of this opportunity, however, the NFP would need to work with other ministries or agencies to identify and build a pipeline of projects which may qualify for GEF financing. This basically implies projects which also address global environmental issues and include cofinancing from domestic and/or external sources in addition to GEF financing. In the context of land degradation. In this context, GEF draft OP-15, which was considered by the recent GEF Council session in May 2003, states that "GEF assistance would focus on funding the agreed incremental costs of accelerating country-driven actions on sustainable land management to preserve ecosystem stability, functions, and services;

reduce carbon dioxide emission and improve carbon sequestration; or stabilize sediment storage and release in waterbodies". GEF assistance would cover three inter-related types of interventions – capacity building, on-the-ground investments, and targeted research – at the community, national, and/or transboundary levels.

Conclusion no. 6: Uzbekistan may be able to get from GEF "enabling activity" grant for land degradation focal area, as it has obtained for "Expedited Financing of Climate Change Enabling Activities"-see Annex 5. Any assistance in terms of technical and funding support from interested donors to the Government of Uzbekistan for identification of GEF-able project concepts (both national and regional) would be most useful in stimulating implementation of UNCCD.

G. Forging strategic partnership among donors and domestic stakeholders

75. The Strategic Partnership Agreement (SPA) between the GM, ADB, Germany and Canada, with anticipated joining of Switzerland, IFAD and ICARDA, offers new opportunities to enhance the implementation of NAPs 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 coherent platform for the mobilization of resources for UNCCD in Central Asia.

Uzbekistan-IACD

Item	1996	1997	1998 1999)	2000
A. Income and Growth					
 GNP per capita (\$, current prices)^a GDP Growth (%) (in constant prices) 	1.010 1.6	1,020 5.2	870 4.4	 4.4	-4.0
a. Agriculture b. Industry	(7.3) 1.7	5.8 2.2	4.4 4.0 2.3	4.4 5.9 6.1	4.0 3.2 6.4
c. Services	5.0	5.9	3.0	4.7	14.0
B. Savings and Investment			(percent of GDP)		
 Gross Domestic Savings Gross Domestic Investment 	7.9 15.1	14.9 18.9	9.9 10.2	10.5 11.8	16.5 15.9
C. Money and Inflation		(annu	al percent change)		
 Consumer Prices (end of period) Broad Money (M2) 	64.3 113.7	27.6 36.0	26.1 28.0	26.0 31.5	28.2
D. Central Government Finances			(percent of GDP)		
 Revenue Expenditure Overall Surplus/Deficit (-) (including extra budgetary funds) 	39.9 34.3 (7.4)	32.0 29.7 (2.2)	34.8 32.4 (3.4)	32.6 31.5 (2.2)	28.5 29.5 (1-0)
E. Balance of Payments					
 Merchandise Trade Balance (% of GDP) Current Account Balance (% of GDP) Export Growth (percent per year) Import Growth (percent per year) 	(6.8) (7.2) 1.7 31.0	(0.5) (4.0) 4.5 (11.2)	0.0 (0.6) (21.8) (25.2)	0.5 (1.3) (10.0) 10.0	0.8 0.9 (0.9]
F. External Payments Indicators					
1. Gross Official Reserves (\$ million; end of period)	1,901	1.167	1,168 1,283	3	1,100
-months of imports 2. External Debt Service (% of exports of goods and services)	4.8 8.3	3.7 9.0	5.2 9.0	5.9 11.0	4.7
3. External Debt (% of GDP)	17.1	18.2	24.8	28.1	25.8
G. Memorandum Items:					
GDP (current prices, SUM million) Official Exchange Rate (SUM per US dollar; average of the period)	559,073.0 40.2	987,352.0 67.7	<u>1,358.000.0 1,942.</u> 94.7	none 124.9	3,194,504.0 236.9

ECONOMIC INDICATORS

- = not available, GDP = gross domestic product, GNP= gross national product.
 ⁸ World Bank estimates, using Atlas methodology based on a three-year average of inflation-adjusted exchange rates.
 Sources: Uzbekistan authorities and International Monetary Fund.

Table A2.1: Population	n and Socia	I indicators		
Item	1985	1990	Latest	Year
Population Indicators				
Total Population (millions)	18.1	20.4	24.5	(1999)
Rural Population (percent of total)	59.7	59.4	62.4	(1999)
Annual Population Growth Rate (% change over the previous year)	2.7	2.2	1.5	(1999)
Social Indicators				
Total Fertility Rate (births per woman)				
Maternal Mortality Rate (per 100,000 live births)	48.6	34.1	14.6	(1999)
Infant Mortality Rate (below 1 year; per 1,000 live births)	45.3	34.6	20.2	(1999)
Life Expectancy at Birth (years)		69.3	70.3	(1999)
Female		72.4	73.1	(1999)
Male		66.1	68.2	(1999)
Adult Literacy (%)		93.0	99.2	(1999)
Primarv School Enrollment(% of school age population)	99.1	99.1	95.4	(2000)
Female	98.9	99.1	95.6	(2000)
Secondary School Enrollment (% of school age population)				
Female	-	39.3	38.1	(1998)
Child Malnutrition (% of under age 5)	-	-	19.0	(1998)
Percent of households below the poverty line			_	_
Income Ratio of Highest 20% to Lowest 20% (times)	-	-	7.5	(2000)
Population with Access to Safe Water (share of the housing area)			55.0	(2000)
Population with Access to Sanitation (share of the housing area)			27.9	(2000)
Public Education Expenditure as % of GDP		11.6 (1992)	7.8	(1999)
Public Health Expenditure as % of GDP		5.5 (1992)	2.9	(1999)
Human Development Index		0.695	0.686	(1998)
Human Development Ranking	-	80	106	(1998)

SOCIAL AND ENVIRONMENTAL INDICATORS **Table A2.1: Population and Social Indicators**

GDP = gross domestic product

Sources: Uzbekistan authorities. ADB Key Indicators of Developing Asian and Pacific Countries, vol. 31. 2000. UNDP Human Development Report 2000.

Table A2.2: Environmental Indicators

Item	1985	1990	Latest Year
Forestry			
Total Forest Area (thousand h Annual deforestation	ectares)		- 707.5 (2000)
Biodiversity			
Nationally protected area Area (thousand hectares)	2	215.0 239.9	827.9 (2000)
Number	10.0	10.0 12 (2	2000)
As % of Land Area	-		
Biosphere Reserves Area (thousand hectares)			
Number		-	
World Heritage sites (number) Area (thousand hectares)			
Number		-	
Wetlands of international impo	ortance		
			Area (thousand hectares)
			Number
			Land Use (thousand hectares)
Cropland per capita (ha) Permanent Pasture Air Pollution (ambient cor	ncentratio		48.1 4,056.6 (2000)
Particulates			
S02			
Water Pollution (concentration of	pollutant	s in water bodie	es)
Biochemical Oxygen Demand		-	
Chemical Oxygen Demand (C	COD)	-	
Global Environmental Problems Total COz emissions (thousar	nd metric	tons)	229.7 131.4 78.4 (2000)
Per capita COz emissions (me	etric tons)	0.0	13 0.006 0.003 (2000)
CO; = carbon dioxide, SO? = s Sources: Uzbekistan authorities. ADB Key Indicator UNDP Human Dev	s of Deve	loping Asian ar	nd Pacific Countries, vol. XXXI. 2000.

Annex 2

UZBEKISTAN: IACD

Briefs on Project Proposals From the Domestic Consultant/ National Focal Point-UNCCD

Project Brief #: 1

Main Particulars	Brief Description
A: Key Data	
Country	Uzbekistan
Project Proposal Number	
Project Name	Autonomous Solar Power Plant
Project Areas (Oblasts, Rayons)	
Sector/Sub-sector	UNCCD
Project Implementation Agency	Technology Transfer Agency under the State Committee for Science and Technology of the RU
Contact Person (s) in the Agency	G.Sh. Rashidova
responsible for project development.	
Type of Project: Investment project/	Investment project
Technical assistance (TA)	
B: Description	
Brief project description	This project intends to establish an autonomous solar power system (ASPS) at one of the facilities to show advantages and peculiarities of such systems to potential consumers. The experience of establishing and operating an ASPS will permit to find a more effective strategy of dissemination of a new power engineering technology on a market-oriented basis
Project objectives & rationale	
Key project activities	
Tentative total project costs (\$ million)	About 15-30.000 USD
Type of external donor financing	TA –grant funds
requested:	
(a) TA –grant funds	
(b) Investment Project financing	
(concessional loans)	
Current Status of Project Preparation:	Under preparation
(a) only a project idea/concept	The project has been included to National Action Plan
(b) at identification stage	
(c) Under preparation	
Has the project proposal been submitted to any donor agency. If so give details	It was sent to UNCCD, JACA and other agencies
Has the project received any budgetary	NO
support/ or its clearance status	
Type of support needed to complete	Financial support from donors
project preparation	Thates our our control
Project activities which offer scope for	Subregional Action Plan of Aral Sea basin
regional cooperation.	
How the project would address global/	
trans-boundary land degradation issues	
to get GEF support.	
How is the project supportive of CCD/	The project has been included to NAP/CCD
NAP objectives	1 5
3	1

Project Brief #: 2

Main Particulars	Brief Description
A: Key Data	•
Country	Uzbekistan
Project Proposal Number	
Project Name	Designing action plan for establishing desertification, salinisation and drought monitoring in the Bukhara province, the Republic of Uzbekistan
Project Areas (Oblasts, Rayons) Sector/Sub-sector	Bukhara province UNCCD
Project Implementation Agency	Central Asian Research Hydrometeorological Institute (SANIGMI)
Contact Person (s) in the Agency	G.A.Tolkacheva
responsible for project development	
Type of Project: Investment	Investment project
project/Technical assistance (TA)	
B: Description	
Brief project description	Assessment of actual environmental state in the Bukhara province: atmospheric air, soil, surface and underground water, biota, farming lands, rangelands, desert forests, atmospheric precipitation (dry and wet). Designing expert forecast assessment of the desertification development processes. Developing a programme for arranging desertification, salinisation and drought monitoring. Selecting and justifying nature protection measures, requiring priority investment
Project objectives & rationale	
Key project activities	
Tentative total project costs	About 15-30.000 USD
(\$ million)	
Type of external donor financing requested: (a) TA –grant funds (b) Investment Project financing (concessional loans)	TA –grant funds
Current Status of Project Preparation: (d) only a project idea/concept (e) at identification stage (f) Under preparation	Under preparation The project has been included to National Action Plan
Has the project proposal been submitted to any donor agency. If so give details	It was sent to UNCCD, JACA and other agencies
Has the project received any budgetary support/or its clearance status	NO
Type of support needed to complete project preparation	Financial support from donors
Project activities which offer scope for regional cooperation.	Subregional Action Plan of Aral Sea basin
How the project would address global/ trans-boundary land degradation issues to get GEF support.	
How is the project supportive of CCD/ NAP objectives	The project has been included to NAP/CCD

Project Brief #: 3

Main Particulars	Brief Description
A: Key Data	
Country	Uzbekistan
Project Proposal Number	
Project Name	Causes and consequences of desertification in the southwestern
	Kyzylkum desert and its control
Project Areas (Oblasts, ayons)	Bukhara district
Sector/Sub-sector	UNCCD
Project Implementation Agency	Bukhara State University
Contact Person (s) in the Agency	I.K.Nazarov
responsible for project	
development.	
Type of Project: Investment	Investment project
project/ Technical assistance (TA)	
B: Description	
Brief project description	To develop scientifically grounded recommendations for combating processes and types of desertification with the aim of neutralization and rehabilitation of initial biological and economical potential of the desert region with due regard for local geo-ecological conditions.
Project objectives & rationale	
Key project activities	
Tentative total project costs (\$ million)	About 15-30.000 USD
Type of external donor financing requested: (a) TA –grant funds (b) Investment Project financing (concessional loans)	TA –grant funds
Current Status of Project Preparation: (g) only a project idea/concept	Under preparation The project has been included to National Action Plan
(b) at identification stage(i) Under preparation	
Has the project proposal been submitted to any donor agency. If so give details	It was sent to UNCCD, JACA and other agencies
Has the project received any budgetary support/ or its clearance status	NO
Type of support needed to complete project preparation	Financial support from donors
Project activities which offer scope for regional cooperation.	Subregional Action Plan of Aral Sea basin
How the project would address global/ trans-boundary land degradation issues to get GEF	
support. How is the project supportive of CCD/ NAP objectives	The project has been included to NAP/CCD

Project Brief #: 4

Main Particulars	Brief Description
A: Key Data	
Country	Uzbekistan
Project Proposal Number	
Project Name	Studying the origin of secondary salinisation of irrigated lands in the Zeravshan river delta and developing methods of their control in conditions of different water content of lands
Project Areas (Oblasts, Rayons)	Bukhara district
Sector/Sub-sector	UNCCD
Project Implementation Agency	Bukhara State University
Contact Person (s) in the Agency responsible for project development	U.Tajiev
Type of Project: Investment project/ Technical assistance (TA)	Investment project
B: Description	
Brief project description	To develop comprehensive soil and land reclamation accounting methods as well as methods of improving quantitative identification and monitoring of the environmental state of different forms of saline irrigated soils.
Project objectives & rationale	
Key project activities	
Tentative total project costs (\$ million)	About 15-30.000 USD
Type of external donor financing requested: (a) TA –grant funds (b) Investment Project financing (concessional loans)	TA –grant funds
Current Status of Project Preparation: (j)only a project idea/concept (k) at identification stage (l)Under preparation	Under preparation The project has been included to National Action Plan
Has the project proposal been submitted to any donor agency. If so give details	It was sent to UNCCD, JACA and other agencies
Has the project received any budgetary support/or its clearance status	NO
Type of support needed to complete project preparation	Financial support from donors
Project activities which offer scope for regional cooperation.	Subregional Action Plan of Aral Sea basin
How the project would address global/ trans-boundary land degradation issues to get GEF support.	
How is the project supportive of CCD/ NAP objectives	The project has been included to NAP/CCD

Annex 2

Main Particulars	Brief Description
A: Key Data	
Country	Uzbekistan
Project Proposal Number	
Project Name	Environmental problems of developing irrigated farming in the Samarkand province
Project Areas (Oblasts, Rayons)	Samarkand province
Sector/Sub-sector	UNCCD
Project Implementation Agency	Samarkand Agricultural Institute
Contact Person (s) in the Agency	A.I.Alikulov
responsible for project development	
Type of Project:	Investment project
Investment project/	
Technical assistance (TA	
B: Description	
Brief project description	Theoretical and methodological designing proposals on the establishment and development of an environmentally balanced production structure of irrigated farming on farms as well as creation of an economic mechanism of its implementation in a market-oriented economy for the arid zone.
Project objectives & rationale	
Key project activities	
Tentative total project costs	About 15-30.000 USD
(\$ million)	
Type of external donor financing	TA –grant funds
requested: (a) TA –grant funds (b) Investment Project financing (concessional loans)	
Current Status of Project Preparation:	Under preparation
 (m) only a project idea/concept (n) at identification stage (o) Under preparation 	The project has been included to National Action Plan
Has the project proposal been submitted to any donor agency. If so give details	It was sent to UNCCD, JACA and other agencies
Has the project received any budgetary support/ or its clearance status	NO
Type of support needed to complete project preparation	Financial support from donors
Project activities which offer scope for regional cooperation.	Subregional Action Plan of Aral Sea basin
How the project would address global/ trans-boundary land degradation issues to get GEF support.	
How is the project supportive of CCD/ NAP objectives	The project has been included to NAP/CCD

Main Particulars	Brief Description
A: Key Data	
Country	Uzbekistan
Project Proposal Number	
Project Name	Selecting and zoning (planting) arboreal plants for protection against desertification in the Aral Sea littoral area
Project Areas (Oblasts, Rayons)	
Sector/Sub-sector	UNCCD
Project Implementation Agency	Urgench State University
Contact Person (s) in the Agency responsible for project development.	R.A.Eshchanov
Type of Project: Investment project/ Technical assistance (TA)	Investment project
B: Description	
Brief project description	The scale and complexity of desertification-related problems necessitate selecting and zoning (with planting of 1000 pieces) of arboreal species of acacia (Rjdinia pseudoacacia), Canadian poplar (Populus canadensis) and torangyl (Populus pruiosa) in the part of the Khorezm oasis bordering on the desert area as well as planting (500 pieces) and zoning arboreal species in settlements of the province. These measures will produce the following feasible results: protection against desertification, halting soils salinisation, reduction in ground water table, protection against dust and salt storms, conservation of water resources due to lower evaporation in irrigated farming, removal of carbon dioxide from the atmosphere, regeneration of atmospheric oxygen and increase in natural forest resources.
Project objectives & rationale	
Key project activities	
Tentative total project costs (\$ million)	About 15-30.000 USD
Type of external donor financing requested: (a) TA –grant funds (b) Investment Project financing (concessional loans)	TA-grant funds
Current Status of Project Preparation: (p) only a project idea/concept (q) at identification stage (r)Under preparation	Under preparation The project has been included to National Action Plan
Has the project proposal been submitted to any donor agency. If so give details	It was sent to UNCCD, JACA and other agencies
Has the project received any budgetary support/ or its clearance status	No
Type of support needed to complete project preparation	Financial support from donors
Project activities which offer scope for regional cooperation. How the project would address global/ trans-boundary land degradation issues to get GEF	Subregional Action Plan of Aral Sea basin
support. How is the project supportive of CCD/ NAP objectives	The project has been included to NAP/CCD

Uzbekistan: Farm Sector Reforms

New Farm Entities

1. During the period 1991-1997, the number of **dekhan farms** increased from 1.9 to 21.4 thousands. Area of attached lands increased from 13.7 to 413 thousands ha. During the period 1997-1999, the number of leased farms increased from 21.4 to 31.1 thousand. Area of lands under leased farms increased from 413,000 to 666,000 ha. Of the 31, 000 leased farms – 24,000 are plant growing ones, 5,000 – cattlebreeding, and 2,000 – orchards and vineyards. Some 230,000 people are engaged in leased farms. In 1999 leased farms produced: 463 thousands tons of cotton, 367 thousands tons of grain, 10 thousands tons fruits, 7.5 thousands tons of milk, 9.3 thousands tons of potatoes.

Main Constraints

2. New agricultural entities face a number of constraints, which reduce their efficiency, hamper their capacity to invest in modern equipment and technologies to increase farm production, and hinder increased productivity of farm labor. Briefly, the reforms in agriculture set up new land owners (with user rights) but without support services for them to become effectively functioning producers. The causes of unsatisfactory course of agricultural production transformation can be divided in the following groups:

Firstly, *financial problems*: the majority of *shirkats* (farmlands) are short d own funds and operate under loss-making conditions for agricultural produce. For instance, in 1996, farm profits averaged (-) 11%, in 1998 (-) 14%, and in 2000 (-) 4.7%. At the same time, their possibilities to get credit are limited. It is caused by the fact that farm entities can not access credit due to bureaucratic difficulties and high transaction costs of obtaining credit approvals.

Secondly, *material-technical difficulties*: domestic producers do not produce small-scaled and middle-scaled equipment, which meet the requirements of small to medium farm units as well as family farms; current lease companies offer only expensive cotton- and harvester combines, tilled tractors. Machine-tractor parks not only do not cater to their needs, but also overcharge them for on the service; monopolistic conditions in farm machinery stations result in high prices for equipment, fertilizers, pesticides, seeds, combustive-lubricating materials, which much exceed their paying capacity.

The Leasing Process

3. In order to create **leased farm**, one needs to apply to Khokim (head) of a region for allotting land. Application is considered at general meeting where selection is made. Special commission makes decision regarding satisfaction of an application. Order of Khokim is obligatory for implementing by bank, tax inspection and the department of internal affairs. Region Khokimiat also enacts farm regulations. Size of leased farm lands in the irrigation area, when cotton growing, should be not less than 10 ha, orchards and vine-yards and vegetable-melon growing – not less than 1 ha. Water charge constitutes less than 10% of cost to the state for water supply.

State Order prices

4. Cotton covered by state order is procured at fixed prices (below market ones). In 1992, 95% of cotton produced was covered for state procurement. In 2001, state order for cotton amounted to 30% of the produce for cotton, and 25% of the produce in case of grain. The farm units can sell the rest output to the state on agreed or negotiated prices. However, even agreed prices are not entirely favorable, as these too are procured below market prices.

A. Uzbekistan NAP/CD: Main Priority Areas

•	Establishing a network of environmental stations;
•	Arranging the monitoring of desertification processes based on Geographic Information
	Systems;
•	Obtaining comprehensive geographic data;
•	Analyzing and assessing the environmental situation at all economic levels;
•	Including desertification monitoring into a single public environmental monitoring system;
•	Identifying desertification criteria with the aim of grading desert lands according to the extent
	of their degradation;
-	Creating an electronic desertification map to be used in environmental zoning;
-	Improving organization of territories with the aim of preventing land degradation, securing
	environmentally and economically wise location of lands in economic use based on the
	landscape and environmental conditions and a regulatory framework;
	Creating a legislative framework on standardization and regulation of land use. Developing
	economic mechanisms of a sparing use of natural resources;
•	Both superficial and radical improvement of degraded rangelands and hay fields;
•	Restoration of fertility of arable lands;
•	Restoration of vegetation on plough -lands withdrawn from agricultural use;
•	Preventing soil erosion by wind and water;
-	Introducing water-saving irrigation technologies in cultivating farm crops and watering
	rangelands;
-	Using alternative energy sources (wind, sun, etc.) and developing on their b asis energy
	conservation stations in areas struck by desertification;
•	Undertaking forest restoration interventions and forest planting on the lands of the state forest
	reserve and other territories suitable for planting forests;
•	Fixing sands to protect rangelands, populated areas and economic facilities;
•	Engineering and biological re-cultivation of technologically damaged lands with the aim of
	using them in economic, recreational, sanitary and hygienic purposes;
	Reclaiming soils with secondary salinization;
•	Liquidating technogenic soil pollution;
•	Planting greenery in populated areas with the use of biologically treated wastewater;
•	Supplying drinking water to areas without water and with a strong extent of desertification;
•	Arranging environmental education and raising public awareness of desertification problems
	in Uzbekistan;
•	Developing a system of protected territories.
Sou	arce: Concluding Section of Uzbekistan NAP

B. Some ideas for Agro-Technical Interventions

These interventions aim to prevent the destruction of the top soil layer and increase the fertility of eroded lands. They are also part of the farming techniques in crop farming on **eroded soils.**

#	Interventions	Irrigated lands	Rain-fed lands	Range- lands	Total
1	Introduction of scientifically grounded crop rotation	3,800	750	-	4,550
	Of this amount those aiming to protect soils (with a large ratio of grasses)	1,600	580	-	2,180
2	Permanent monitoring of micro-relief	3,300	750	-	4,050
3	Application of higher (by 10-30 per cent) norms of organic and mineral fertilisers	1,200	530	-	1,730
4	Sowing of higher (by 5-10 per cent) seed norms	930	350	-	1,285
5	Soil tillage against the harmful winds direction	930	350	-	1,285
6	Cultivation of siderites for green feed	850	-	-	850
7	Planting of wind break curtains & buffer belts from perennial grasses	300	20	-	320
8	Conducting moistening watering	930	-	-	930
9	Conducting a complex of fanning techniques on raid-fed lands (contour ploughing, deep strip loosening, combing & furrowing of land ploughed in autumn, high-cut harvesting of cereals, etc.)		750		750
10	Introduction of rangelands rotation	-	-	11,400	11,400
11	Livestock grazing in conformity with the norms		-	11,400	11,400
12	Temporary bans on livestock grazing	-	-	600	600
13	Complete ban on livestock grazing	-	-	330	330
14	Creating meadows on strongly eroded soils & steep slopes	-	-	330	330
15	Improvement of rangelands surface		-	760	760
16	Radical improvement of rangelands	•	-	3,100	3,100

Main Types of Logistical, Economic and Agro-Technical Interventions					
and Their Approximate Volumes					

000 ha

Source: Uzbekistan NAP/CD, p.104

Country 'Uzbekistan' 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 & Docum ents
Uzbekistan	National Biodiversity Strategies, Action Plan, and the First Report to the CBD	ECA	Biodiversity	UNDP	Enabling Activity	0.183	CEO Approved	1×1
Uzbekistan	Establishment of the Nuratau-Kyzylkum Biosphere Reserve as a Model for Biodiveristy Conservation	ECA	Biodiversity	UNDP	Medium Size Project	0.750	CEO Approved	Ĭ
Uzbekistan	Country Study on Climate Change	ECA	Climate Change	UNDP	Enabling Activity	0.326	CEO Approved	1 I I
Uzbekistan	Expedited Financing of Climate Change Enabling Activities (Phase II)	ECA	Climate Change	UNDP	Enabling Activity	0.098	CEO Approved	131
Uzbekistan	Programme for Phasing out Ozone Depleting Substances	ECA	Ozone Depletion	UNDP	Full Size Project	3.412	Council Approved	Iŝi
	Subtotals 1	or the Res	ult			4.768	5 Projects	
Region	al and Global Projects - 3 Projects							
Region Country	al and Global Projects - 3 Projects Project Name	Regi	on Focal Area	a Agend	y Project Type	GEF Grant (US\$M)	Project Stage	Details & Docum ents
		d co ECA	on Focal Area Ozone Depletion	a Agend	- VI	Grant	-	& Docum
Country	Project Name Promoting Compliance with the Trade an Licensing Provision of the Montreal Proto in Countries with Economies in Transition	d co ECA	Ozone	UNEP	Medium Size	Grant (US\$M)	Stage CEO	& Docum ents
Country	Project Name Promoting Compliance with the Trade an Licensing Provision of the Montreal Proto in Countries with Economies in Transition (CEITs) Water and Environmental Management in	d CO ECA	Ozone Depletion	UNEP II IBRD	Y Type Medium Size Project Full Size	Grant (US\$M) 0.694	CEO Approved CEO	& Docum ents

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