United Nations Development Programme
Country: Uzbekistan
PROJECT DOCUMENT[1]

Project Title: Reducing pressures on natural resources from competing land use in non-irrigated arid mountain, semi-desert and desert landscapes of Uzbekistan

UNDAF Outcomes: Principles of sustainable development integrated into country policies and programs
UNDP Strategic Plan Environment and Sustainable Development Primary Outcome: Strengthen national capacity to manage the environment in a sustainable manner while ensuring adequate protection of the poor
UNDP Strategic Plan Secondary Outcome: Mainstreaming environment and energy

Expected CP Outcome(s): Increased availability of institutional products and services for the conservation and sustainable and equitable use of natural resources

Expected CPAP Output(s):

Concrete interventions on sustainable natural resources use, including water, land, biodiversity resources, and on climate change (mitigation, adaptation and carbon financing) complemented with environment education/ training component; and Strengthened legal and institutional frameworks and enhanced government capacities to meet international commitments and obligations
Executing Entity/Implementing Partner: State Committee on Land Resources, Geodesy, Cartography and State Cadastre (Goskomzem - GKZ)

Brief Description: This 5 year project is designed to support the improved, more sustainable and more resilient land use management of non- irrigated arid desert, steppe and mountain landscapes of Uzbekistan, which constitute the vast majority of its territory, and reduce competitive pressures between different land uses, particularly pasture use and forestry. It will facilitate the up-scaling of existing best practices for land management within two ecologically and socio-economically representative districts (Zaamin and Karakul) and provide a model for undertaking district level integrated land use planning. On the basis of experiences on the ground it will support the updating and refinement of relevant national policy, legislation and institutions and mechanisms for improved national coordination and planning for integrated land use management. It will further support land use capacity development at all levels from national decision makers to farmers in target districts and lay the basis for developing a national cadre capable of effectively and flexible implementing national land use policy and legislation. Lessons learned from the project target districts in regard to sustainable land use practices will thus have an effective vehicle for wider replication within the target landscapes.

Programme Period:	2010-2015
Atlas Award ID:	00075602
Atlas Project ID:	00087414
PMIS #	4600
PIMS #:	4649
Start date:	2013
End Date:	2018
Management Arrangements	NIM
PAC Meeting Date	tbd

Total resources required	*12,193,600$*
Total allocated resources (grants)	10,753,600$
-	
- UNDP	700,000$
- GEF	2,313,600$
- Government	6,700,000$
- Forestry Enterprises	220,000$
- ICBA	500,000$
- Sheep Breeding Farms	320,000
In-kind Contributions	1,440,000$

[1]For UNDP supported GEF funded projects as this includes GEF-specific requirements

Agreed by (Government):

Name	Signature	Date

Agreed by (Executing Entity/ Implementing Partner):

Saidqul Arabov	Signature	Date

Agreed by (UNDP):

Stefan Priesner	Signature	Date

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List of acronyms

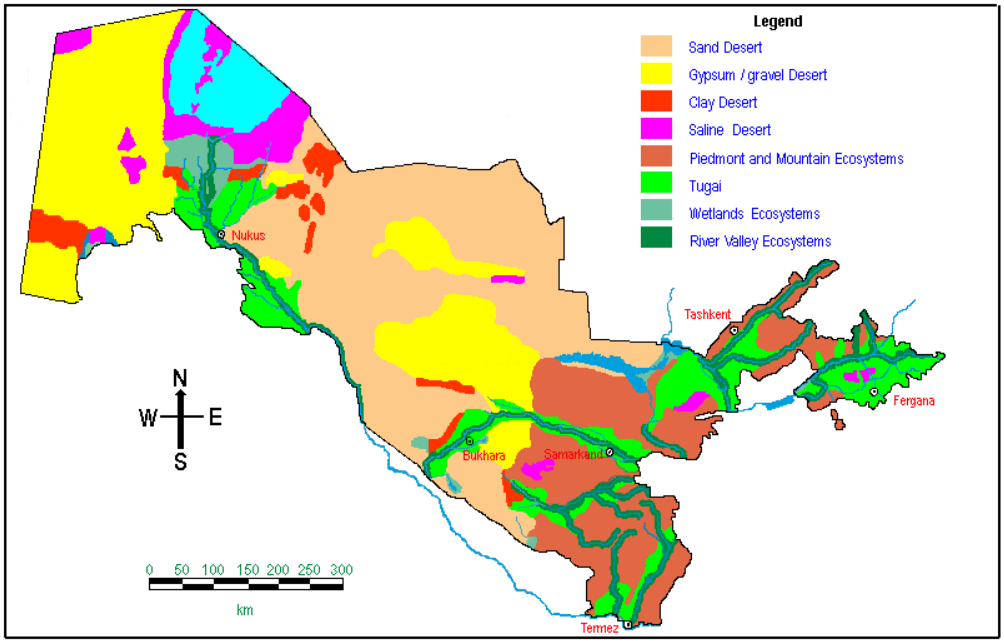
APR	Annual Progress Report
AWP	Annual Work Plan
BD	Biodiversity
CACILM	Central Asian Initiative for Land Management
CBD	Convention on Biological Diversity
CBO	Community Based Organization
CITES	Convention on International Trade in Endangered Species
CO	(UNDP) Country Office
COP	Conference of Parties
CPAP	Country Programme Action Plan
EIA	Environmental Impact Assessment
ELS	Enhancing Living (UNDP/EU)
EU	European Union
FA	Focal Area
GEF	Global Environment Facility
GIS	Geographical Information System
GIZ	Deutsche Gesellschaftfür Internationale Zusammenarbeit
GKZ	State Committee on Land Resources, Geodesy, Cartography and State Cadastre
GoU	Government of Uzbekistan
ILUP	Integrated land Use Planning
LD	Land Degradation
ICBA	International Centre for Bio-saline Agriculture
MAWM	Ministry of Agriculture and Water Management
M&E	Monitoring and Evaluation
NBSAP	National Biodiversity Strategy and Action Plan
NGO	Non-Government Organization
NTFP	Non Timber Forest Products
PIR	Project Implementation Report
PEB	Project Executive Board
RCU	(UNDP) Regional Coordinating Unit
RTA	(UNDP) Regional Technical Adviser
SBAA	Standard Basic Assistance Agreement
SLM	Sustainable Land Management
TBW	Total Budget and Work plan
USD	United States Dollar
UNEP	United Nations Environment Programme
UNDP	United Nations Development Programme
UNDAF	United Nations Development Assistance Framework
ZEF	Centre for Development Research (ZEF, Bonn)

1. SITUATION ANALYSIS

Environmental context

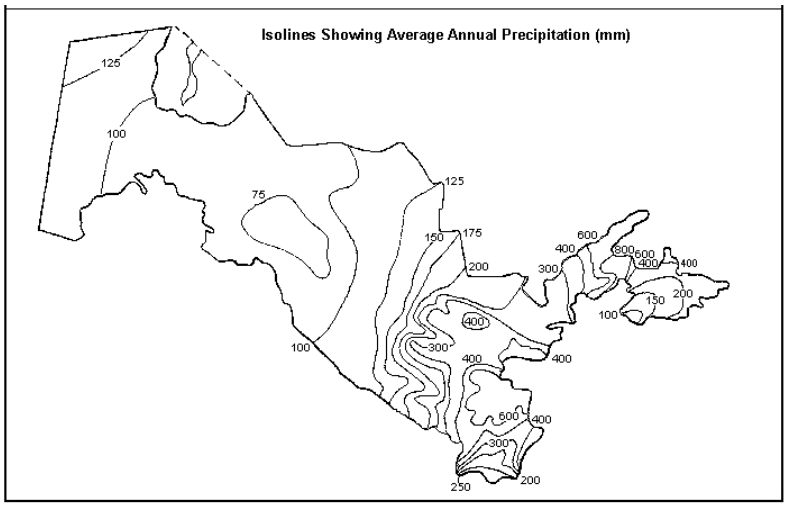
1. The Republic of Uzbekistan is a dry country with a total area of approximately 44.5 million ha, comprised mainly of mountains (20%) and arid/ semi-arid areas (70%), with the rest being intensely irrigated valleys along its two major rivers (Syr Darya and Amu Darya). The largest desert in Central Asia, the Kyzylkum, covers the greater part of the lowlands and plains to the west and south of the country. Map 1 below indicates the broad ecosystem categories of the country.

Map 1. Broad Ecosystem Categories (NBSAP, 1998)



2. Uzbekistan also experiences high solar radiation. This, combined with its landlocked situation and topographic relief, results in a severe continental climate with large diurnal and seasonal variations in temperature. Average precipitation in the desert is less than 200 mm per year. It reaches about 400 mm in the foothills and can go above 800 mm at altitudes between 1,000 m and 4,000 m (see Map 2).

Map 2. Precipitation Isolines (NBSAP, 1998)



3. The population of Uzbekistan is estimated at 30 million and the annual growth rate is 2.3%, which is one of the highest in Central Asia. More than half of the population is considered rural and is employed in the agricultural sector which accounts for about 17% of gross national product, about 27% of employment, and about 40% of export income.

4. The three largest land use categories in Uzbekistan are: agricultural use (46.1%); State Forestry Fund territory (21.7%); and State Reserve Land (27.6%). In total these categories cover over 42 million hectares (95% of the country). Of this area, arable land (including household plots) only constitutes about 11%. Thus the vast majority of the land use in Uzbekistan is related to rangeland, forestry or unused land (often unofficially used as rangeland). See Table 3 for details.

Table 3. Broad Land Use Categories and Areas in Uzbekistan

Category of Land Use	**Area ha.**	**%**
Agricultural Land	20,473,500	46.1
State Forestry Fund Land	9,635,900	21.7
Reserve land	12,262,700	27.6
Industrial / infrastructure / defense	911,000	2.1
Water Resources	830,300	1.9
Settlements	216,300	0.5
Environmental	75,900	0.2
Historical/cultural	4,700	0.01
Total land Area of Uzbekistan	44,410,300	100

5. As can be seen from Table 4 below, within these above mentioned three categories all have some area used as rangeland or forestry. Thus in total at least 19 million hectares are designated rangeland (approximately 46% of the total land designated for agriculture, forestry or reserve) and in practice a greater area is probably utilized primarily in this way. Due to its arid climate, arable agricultural output is almost entirely dependent on irrigation, with only about 752,900 hectares (18%) of arable agriculture being rain-fed.

Table 4. Details of Agricultural, Forestry and Reserve Land Use

Broad Category of Land Use	**Specific Land Uses**	**Area ha.**	**% of each Category**	**% of total Agricultural, Forestry and Reserve land**
Land classified as for Agricultural Use				
	Arable (irrigated 82%, rain-fed 18%)	4,045,600	19.7	9.5
	Perennial crops (orchards, vineyards, mulberry, nurseries etc.)	343,000	1.6	0.8
	Household plot land	616,200	3	1.5
	Hayfields	104,900	0.5	0.2
	Rangeland	11,018,800	53.8	26.0
	Forested land (including windbreaks, poplar tree plantations)	210,200	1.03	0.5
	Shrubs	31,100	0.15	0.1
	Land requiring melioration/improvement	70,700	0.35	0.2
	Abandoned land (fallow land)	78,400	0.38	0.2
	Unused land	3,954,600	19.3	9.3
	Sub Total (46.1% of the country)	*20,473,500*	*100*	48.3

Broad Category of Land Use	Specific Land Uses	Area ha.	% of each Category	% of total Agricultural, Forestry and Reserve land
State Forestry Fund Territory (land area under forestry administration)	Forest cover (area classified as covered with trees)	2,945,500	30.57	7.0
	Rangeland	3,109,100	32.27	7.3
	Unused land	3,471,900	36.03	8.2
	Other	109,400	1.14	0.3
	Sub- Total (21.7% of the country)	*9,635,900*	*100*	*22.7*
Reserve Land	Rangeland	5,540,000		13.1
	Forest land	43,600		0.1
	Unclassified	6679,100		15.8
	Sub Total (27.6% of the country)	*12,262,700*	*100*	*28.9*
Total Area Agriculture, Forestry and Reserve Land (95% of the country)		*42,372,100*		*100*

6. The vast majority of land use in Uzbekistan is therefore for pasture or forestry. This land use occurs within 3 broad ecological landscapes: desert (Kyzylkum), steppe, and mountains. According to the UNEP aridity index, most of Uzbekistan's territory, except for the foothills and mountains, is classified as a drought zone and is therefore very susceptible to land degradation and desertification. Foothills and mountains, though less vulnerable to drought, are more vulnerable to erosion and natural disaster events including landslides and mudflows. This is predicted to increase under expected climate change forecasts (increased aridity of lowlands, increased intensity of rainfall in mid mountains, and declining snow and ice accumulation at high altitude).

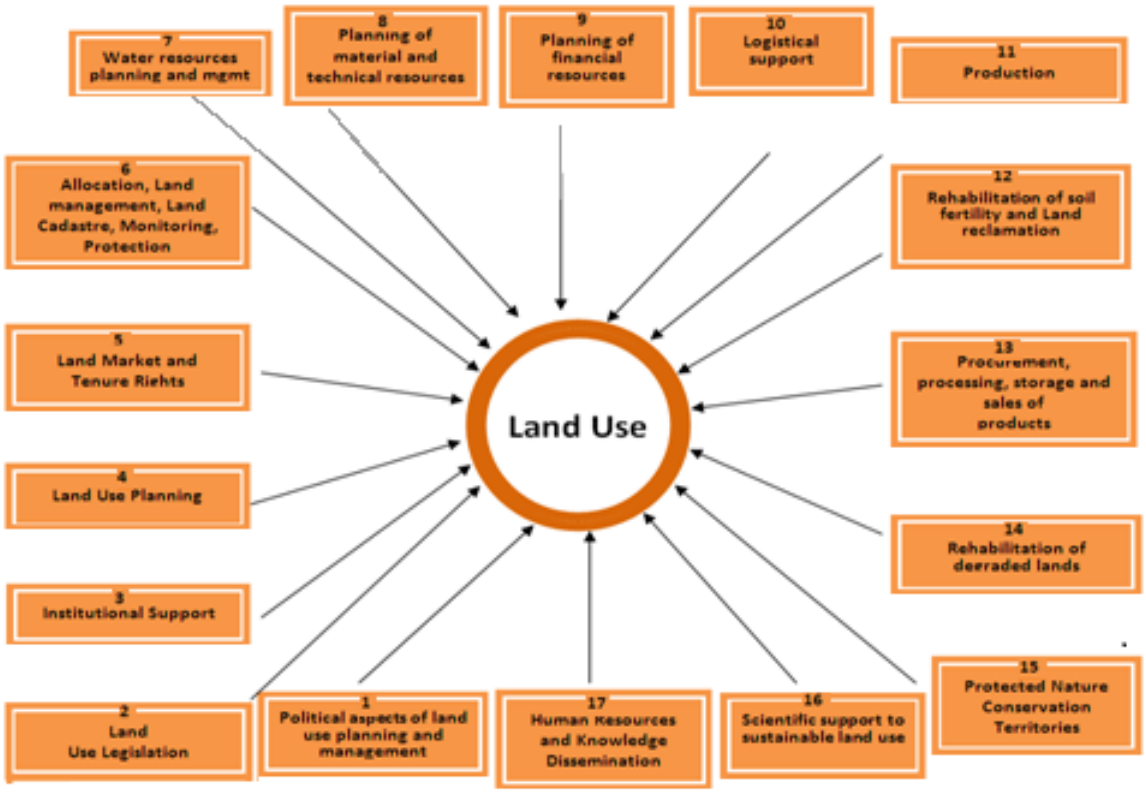
7. Land degradation is widespread everywhere in the country, but the most affected areas are concentrated in the districts of Bukhara, Navoi, and Kashkadarya and the lowlands of the Amudarya River basin, as well as in the Ferghana Valley and the so-called "Hungry" Steppe of the Syrdarya River basin. The drying of the Aral Sea and Amu Darya delta led to significant ecosystem damage and is considered to be the greatest human-caused disaster in Uzbekistan and of global significance. The most serious environmental problems threatening the country's natural resources are incremental soil salinization and water contamination, wind and water erosion, overgrazing, deforestation and loss of biodiversity, and the reduction of productivity of arable lands. During the past 15–20 years, there also has been widespread degradation of pasturelands due to overgrazing, lack of pasture maintenance, and other anthropogenic factors. In the last 20 years, degradation has led to the area of agricultural land decreasing by 37% mainly due to the reduction of pasture lands but also significant reductions in areas of rain-fed and irrigated arable land. Productivity of all lands is falling. Levels of wind-blown erosion and water erosion are increasing.

8. Land degradation's economic costs to the country are imposed at three levels: (i) at the field level, in terms of decline in productivity; (ii) at the national level, in terms of loss of productive capacity of the agricultural land and lower growth of the agricultural gross domestic product and export earnings; and (iii) at the global level, in terms of negative impact on carbon sequestration and climate change, loss of biodiversity, and pollution of transboundary water resource flows. There is no comprehensive assessment of the economic impact this degradation is having due to productivity declines and ecosystem service losses, but according to data in the literature, total economic damage from desertification (including costs of reforestation and stabilization of mobile sands) is annually assessed at USD 1,985 per hectare. Without improvements in land management, and in the context of predicted climate change impacts, land degradation is set to continue and accelerate in the future.

Institutional context

9. Land use and agricultural policy is developed principally by the Ministry of Agriculture and Water Management (MAWM) in collaboration with the State Committee for Land Resources and Geocadastre but with direction given by the President's Office, and Cabinet of Ministers. Land use relationships are regulated by the Laws of the Republic of Uzbekistan, Orders and Decrees of the President, Decrees of the Cabinet of Ministers, and territorial state agencies (Box 1 below). Legislation is developed by the State Committee on Land Resources, Geodesy, Cartography and State Cadastre (GKZ) and Ministry of Justice, and then approved by the Oliy Majlis (Parliament) of the Republic of Uzbekistan (Box 2). Institutional support includes establishment of optimal management structures, which coordinate land use by ministries and agencies, governmental and civil organizations. Tasks within Box 3 are direct functions of Government and relevant Ministries and Agencies.

Figure 5. Determinants of land use: the different institutional actors and their functions



10. Land use planning is a function of Government, Ministry of Economy, and GKZ (Box 4). Establishment of land market / tenure rights is under authority of Government and function of GKZ (Box 5). Activities in Box 6 are the exclusive functions of the GKZ. These activities are sponsored from state budget according to Land Code of Uzbekistan. Allocation and withdrawal of land allotments and land management is a prerogative of the Cabinet of Ministers of Uzbekistan, and is carried out through issuing relevant Decrees based on Land legislation (Land Code of Uzbekistan).

11. Tasks within Box 7 are functions of Ministry of Agriculture and Water Resources of Republic of Uzbekistan. Planning and use of water resources is carried out in strict coordination with land use planning. Needs of applied model of land use should be supported with required material and technical resources (Box 8). Needs in material and technical resources are calculated based on data from governmental accounting and evaluation of lands, which are prepared by GKZ. Planning of material and

technical resources for agricultural production is a function of Ministry of Economy, Ministry of Finance and Ministry of Agriculture and Water Resources.

12. Financing of land use is a function of Ministry of Finance, and the source is the state budgetary financial support though other sources are possible (Box 9). Realization of tasks in Box 10 is a function of Ministry of Agriculture and Water Resources, banks, maintenance services, agricultural enterprises. Implementations of tasks in Box 11 are a function of agricultural enterprises.

13. Tasks in Box 12 on rehabilitation of land productivity are the function of Ministry of Agriculture and Water Resources, its department on land reclamation and rehabilitation of soil fertility. Control functions on rehabilitation of land productivity are carried out by GKZ and the State Committee on Nature Protection of Uzbekistan. Assessment of land use effectiveness is influenced not only by rational land use and rehabilitation of its productivity, but the extent of effective sales of products from these lands (Box 13). Product sales (profit as an integrated indicator of production) are a main factor during assessment of land use effectiveness and sustainability.

14. Effective realization of production is a task of agricultural enterprises, local authorities, territorial branches of Ministry of Agriculture and Water Resources, and procurement/storage companies. Tasks of Boxes 14 and 15 are functions of Ministry of Agriculture and Water Resources, GKZ, the State Committee on Nature Protection, the State Hydro-Meteorological Organization. Tasks in Box 16 are functions of the Ministry of Economy, Ministry of Agriculture and Water Resources, GKZ, Ministry of Higher, Secondary Specialized and Professional Education, Scientific-research Institutes and Scientific-production and Project Institutes.

15. Within Box 17, specialists on land use are mainly trained at the Tashkent Institute of Irrigation and melioration (Land Management department). Realization of Box 17 tasks is a function of Ministry of Education and Ministry of Higher, Secondary Specialized and Professional Education, GKZ, the State Committee on Nature Protection, local authorities, NGOs, local communities.

Policy and Legislative context

16. Since independence the agricultural reform process in Uzbekistan has gone through 3 basic phases. The first phase was aimed at allowing the most productive users of land, the small peasant (dekhan) farmers to become established and thus the “Law of Peasant Farms” was adopted in July 1992 (modified in 1998 into a law on farms generally) which led to a rapid increase in the number of registered farms from less than 2,000 in 1990-1991 to nearly 200,000 in 2006.

17. The second phase involved the change of large soviet era state and collective farms to a form of agricultural cooperative (shirkat). The third phase, which was initiated in the late 1990’s, was aimed at breaking the shirkats into small and more efficient “private” enterprises and was instigated through the passing of new legislation in 1997-98 on the Land Code, On the Agricultural Cooperative, On the Farmer Enterprise, and On the Dekhan Farm.

18. Numerous decrees and resolutions were issued to introduce mechanisms to regulate land use and land tenure within the context of these changes to national laws, including: “National Programme on advancing economic reforms in agriculture for the period 1998-2000” (Main clauses on improved use of land resources, conservation, improvement and rehabilitation of soil fertility), Concept of Land Resources Management in Uzbekistan (2005-2010), “National Programme on establishment of single comprehensive strategy on development of Uzbekistan for 2007-2011”, Concept of single comprehensive strategy on territorial development of Uzbekistan for 2007-2011 (agro-industrial part), Decree of the President on development of set of measures on improvement of meliorative condition of lands for 2007-2012, Resolution of the President of Uzbekistan on further improvements of meliorative conditions of irrigated land and rational use of water resources for the period 2013-2017, Concept on Livestock sector development in Uzbekistan till 2012, and Action Programme on environmental protection in Uzbekistan for 2008-2012.

19. Furthermore, in recognition of the urgent need to improve land use planning the government issued a decree in October 2004 to establish a new institution "the State Committee for Land Resources and Geo-cadastre" tasked with bringing about a more integrated approach to the planning of land use on national level. Under this institution, a Coordinating Council, responsible for implementation and monitoring of the National Program for Land Monitoring in Uzbekistan (2011-2015, annual investment value – USD 4.1 million) was established from relevant representatives of more than 15 ministries and departments.

Threats, Root causes and Impacts

20. Owing to its geographical and climatic characteristics, Uzbekistan is highly susceptible to environmental degradation. According to the UNEP aridity index, most of Uzbekistan's territory, except for the foothills and mountains, is classified as a drought zone and is therefore very susceptible to land degradation and desertification. Winds as low as 6-10 meters per second can cause sand and dust storms, and in flat regions there are between 10 to 30 dust storm days per year. Land degradation in arid lands has clearly accelerated since the collapse of the Soviet Union. This is in part due to the fact that since independence reform has mainly been oriented towards the irrigated agricultural sector as this generates the largest proportion of gross domestic product and directly supports livelihoods of the largest proportion of the population. This means that support towards maintaining or improving effective land use within non-irrigated arid lands has been limited. The results are clearly evidenced by a whole set of land degradation problems:

- widespread and accelerating erosion issues, including dune formation in deserts/ semi-deserts, sand/dust storms, moving sands, soil loss, and gulling in mountains and foothills
- reduced productivity and degradation of pasturelands, due to overgrazing
- deforestation and reduced availability of forest products, due to fuel wood felling and grazing pressure
- reduced habitat and numbers of all wildlife, particularly rare and endangered species
- reduced sequestration of carbon (in forests and grasslands)
- changes in hydrology leading to increased number and severity of floods, mudslides and similar disasters

21. These environmental degradation trends have important and long term implications for overall national development, food security (particularly meat production), social stability, long term viability of land use in arid areas, and resilience to forecasted climate change. For example, food security could be significantly impacted by loss of productive pasture. The reduced productivity of pasture, and loss of crucial forest products, will worsen rural livelihoods leading to over exploitation of natural resources and further land degradation.

22. The most important direct causes of land degradation are increasing levels of deforestation and overgrazing. In terms of forestry, it is estimated that in the last 100 years Uzbekistan has lost about 85% of its historical forest cover. Much of this loss initially occurred in lowland areas where riparian "Tugai" forests were cleared for expansion of irrigation in Tsarist and Soviet eras. More recently, the limited availability of energy sources in some rural areas and increased cost of energy and timber has negatively impacted remaining forests, both in areas under Forestry agency control and other areas. Officially, about 8% of Uzbekistan's territory is currently forested. Of this forested area, only 2% is primary forest, 19% is planted and 78% is classified as "other naturally regenerating forest". However, proper inventories of forest cover have not been undertaken in decades and much of the current data represents extrapolations of Soviet era figures and covers only state Forestry Fund territories. Thus, the level of deforestation is hard to accurately estimate. Moreover, many of the remaining natural forests are degraded to varying degrees by grazing, fuel wood collection, fire and disease. Efforts to undertake reforestation have been hampered by insufficient resources, inappropriate approaches and the impacts of overgrazing.

23. Similarly, rangelands are affected by overgrazing. The breakdown of Soviet-era pasture management systems and the fodder supply chain has resulted in a reduction in the mobility of grazing, which is a vital component of sustainable pasture use in such arid environments. Imbalances in pasture loads are occurring with under-utilization of some areas, and severe local over-grazing of others. There is an increasingly sharp imbalance between the availability of summer and winter feed, resulting in severe overgrazing of some winter pastures.

24. Rain-fed arable agriculture practiced in marginal mountain foothills and steppes is highly sensitive to land use practices, climatic variations, and pressures since independence to be self-sufficient in grains. In the last 60 years significant changes occurred in the use of rain-fed arable lands in Uzbekistan. The largest area of arable rain-fed land in Uzbekistan was 1,466,000 hectares in the 1940s and 1,094,500 hectares in the 1970s. Since the 1990s it has decreased and currently stands at 752,900 hectares i.e. a 341,600 hectares decrease over 40 years. Much of the reduction of rain-fed arable land in the country occurred because of its conversion in Mirzachul, Jizzakh, and Karshi steppes into irrigated lands. However, at the same time, a significant area (circa 400,000-450,000 hectares) was also abandoned due to falling productivity and adverse cost-benefit ratios. Exclusive cultivation of grain crops was widely practiced in the rain-fed arable lands in Uzbekistan during recent years. These crops accounted for 85-95% during the past 20 years (1971-1990), while the area of fallow lands and cultivation of annual and perennial legumes decreased significantly (down to 5-10%). Due to this predominating single crop cultivation, i.e. exclusive cultivation of winter grains, a worsening of soils and yield occurred. It is estimated that on average humus content in the ploughed layer of rain-fed arable land has declined by 57% between 1960 and 2011.

25. In addition, the forestry and extensive rangeland sectors, and to a lesser extent the rain-fed arable agriculture sector, are competing for land use, as is the case in Central Asia in general. Forestry Fund land (of which the majority is desert, dry steppe or un-forested foothills) is mostly used in practice as livestock pasture. Livestock is the greatest threat to forest regeneration both inside and outside Forestry Fund land. Forestry and rangelands are also closely linked with other sectors. For example, extensive rangelands are dependent on irrigated agriculture for fodder and its current deficit is a major limiting factor that leads to overgrazing in autumn, winter, and early spring. Another example is the link between forestry and energy needs of the rural population in arid areas for fire wood (for heating and cooking). However, fire wood remains unconsidered by energy policy and is not part of any stated management objective for forestry.

26. Clearly within the non-irrigated desert, steppe and mountain landscapes of Uzbekistan there are wide variations in the levels or susceptibility of the threats described above. Issues related to falling productivity and wind erosion of rain-fed arable agriculture are clearly not applicable in desert areas (such as the project target district of Karakul – see Section 2: Strategy) but are in steppe/mountain areas (such as the project target district of Zaamin – see Section 2: Strategy), and *vice versa* in the case of moving sands. Specific land use responses to these landscape-specific threats are therefore required. However, the underlying root causes of unsustainable land use in all the landscapes are the same as described above.

27. Thus, arid, non-irrigated landscapes in Uzbekistan face a significant and growing threat of degradation as forestry, extensive pasturing and rain-fed arable agriculture compete for land use, with direct implications for local rural populations, significant national implications for food security and long term sustainable development, and global implications in terms of desertification, carbon sequestration and biodiversity.

28. However, since independence Uzbekistan has made a sustained effort to reform its agriculture and land use sectors, based on a gradual process of transition from the Soviet model towards a free market based one. Additionally, the GoU, with donor support, has pursued various pilot efforts to test new approaches to land management. There is in recent years a clear increase in government awareness of the economic, food security and environmental significance of land use in non-irrigated areas, and a commitment to addressing threats in these areas.

Baseline analysis

29. As described in the "Institutional and Legal Context" section above, an important development in the baseline scenario has been the launch of the National Program for Land Monitoring in Uzbekistan (2011-2015, annual investment value – USD 4.1 million), which is to be implemented and monitored by a Coordinating Council comprised of representatives from over 15 ministries and departments. The legal and institutional framework of this National Program will be a part of the baseline for this project. In this context, the project will use the setting-up of the Coordinating Council as the starting point for development of integrated land resource management planning at a landscape level, and improve its effectiveness in order to increase practical impact in the field (i.e. amongst other things, support decentralization of planning and a more "bottom-up" process rather than the existing highly centralized approaches). Relevant on-going efforts of the Government towards integration of SLM into the processes of national planning and strategic development are summarized in the table below:

Table 6. On-going integration of some SLM activities into the processes of national planning and strategic development

Activities	Sector-wide plans and programs	Source of finance	Responsible executive agency
State regulation of land use relations	According to the Programme of economic reforms in agricultural sector	-	Oliy Majlis, President of Uzbekistan, Cabinet of Ministers.
Land Use Planning	Programme on development of national economy	State Budget	Ministry of Economy, State Committee for Land Resources and Geo-cadastre
Land Evaluation	Plan of State Committee for Land Resources and Geo-cadastre	State Budget	State Committee for Land Resources and Geo-cadastre
Land survey (allocation and withdrawal of lands, maintaining land cadastre, organization of land use, land use monitoring, protection)	Plan of State Committee for Land Resources and Geo-cadastre	State Budget	State Committee for Land Resources and Geo-cadastre
Development of the system on registration of land use rights in the country (3 phases: 1998-2000, 2002-2003, and 2006-2007)	TACIS Programme «Registration of land in Uzbekistan»	EU / GoU	State Committee for Land Resources and Geo-cadastre
Rehabilitation of degraded lands	UNDP Project on rehabilitation of degraded lands in Karakalpakstan and Kyzylkum desert, 2008-2013	GEF/UNDP, GoU	Ministry of Agriculture and Water Resources
Environmental Protection	Programme of activities on environmental protection for 2008-2012	State Budget	State Committee on Nature Protection
Scientific research in the area of SLM	Plans on research work by local universities and Scientific-research institutes in land management and use	State budget, contractual	Departments of universities
Human resources development in land use knowledge dissemination	National programme on education of Uzbekistan	State budget	Ministry of Higher Education

30. The main sources of financing sustainable land management activities in Uzbekistan are summarized below:

Table 7. Main sources of funding of SLM activities in Uzbekistan

Investments from state budget for general SLM activities	Investments allocated from the state budget for activities related to SLM: 2007 - 476 milliard uzbeksoums (~ 369 mln USD), 2008 – 723,5 mlrd UZS (~519 mln USD), 2009 – 997,2mlrd UZS (~ 660 mln USD).
Fund on ameliorative improvement of lands	The amount of allocated resources from state budget and other internal sources for improvement of meliorative condition of lands is: In 2008 - 75 mlrd UZS (~ 55 mln USD);

	In 2009 – 132,7 mlrd UZS (~ 96 mln USD); In 2010 – approximately 169,5mlrd UZS (~ 112 mln USD).
Annual budget (and other non-budget income sources) of the State Agency on Forestry under Ministry of Agriculture and Water Resources	State budget for development of forestry sector: 2007 – 4,506 mlrd UZS (~ 3,5 mln USD), 2008 – 6,29 mlrd UZS (~ 4,5 mln USD), 2009 – over 9 mlrd UZS (~ 6 mln USD) 2010 – 11,881 mlrd UZS (7,8mln USD). Additionally, annual income of the Agency from economic activity is 1,3-1,4 mln USD/year.
Annual budget of State Committee for Land Resources and Geo-cadastre	Allocation from state budget: 2007 – 4,995 mlrd UZS (~ 3,8 mln USD), 2008 – 5,245 mlrd UZS (~ 3,76 mln USD), 2009 – 7,431 mlrd UZS (~ 4,9mln USD). Average annual budget is 4.9 mln USD.
Annual budget of the Center of hydro-meteorological service under the Cabinet of Ministers of Uzbekistan (Uzgidromet)	Amount of investments from state budget: 2007 – 3,622 mlrd UZS (~ 2,8 mln USD), 2009 – 6,302 mlrd UZS (~ 4,1mln USD).

31. Additionally, the GOU, with donor support, has pursued various pilot efforts to test new approaches to land management. By far the most concerted and wide reaching efforts to date have been targeted towards the irrigated land use sector. However, many of these also have built capacity of direct relevance to improvement of land use in non-irrigated land (arid desert, steppe and mountain landscapes). For example, the EU / TACIS supported government programme of land registration, though focusing mainly on irrigated lands, has built the capacity and experience of the State Committee for Land Resources and Geo-cadastre to undertake such registration throughout the country. This means there is a considerable basis of experience and capacity that the government and project can utilize and build upon in regard to proper registration and inventory of non-irrigated landscapes that are the focus of the project. Such activities are envisaged under components of government programmes (Land Evaluation Plan of State Committee for Land Resources and Geo-cadastre, Forestry territories inventory, national Forestry Programme) and are part of the baseline for the project.

32. There have also been significant efforts related to biodiversity conservation and, to a lesser extent, pasture management and forestry. These include pilot efforts to test joint forest management, pasture/livestock management, community based tourism, and household scale energy efficiency/renewable energy technologies. For example, a joint forest management pilot scheme was initiated in Farish District (Djizak region) in 2002 that was trying to improve the effectiveness and sustainability of forestry by providing incentives to local populations to invest in forestation of state forestry land. An informal review this year found that these pilot schemes still survive, have resulted in significant changes in the areas rented and are moving into profitability as fruit and nut trees mature. However, such practices have been too small, and the policy / institutional environment too rigid, for wide scale replication to take place.

33. Pasture management and sustainable livestock husbandry have been components of a number of UNDP GEF Biodiversity projects and the national SLM project within the context of the Central Asian Countries Initiative for Land Management (CACILM) plus efforts by GIZ. In the context of these projects pilot efforts to introduce sustainable pasture management mechanisms and to maximize sustainable productivity have been tested with some promising results. New approaches to pasture use, particularly by the increasing number of livestock owned by private households, have been initiated – these have looked at approaches for improving the local capacity of both farmers and households to sustainable pasture use, and develop collaborative mechanisms (such as local pasture user commissions) in order to put such knowledge into practice.

34. The Biodiversity Action Plan (updated in 2008 but not as yet approved) incorporated some of these experiences and aimed to have them replicated at a wider scale. A National Forestry Plan was developed in 2009, the first stage of which plans to make an inventory of forestry resources existing in the country. Based on the results of the inventory the second stage of the plan includes revision of

institutional, financial and policy instruments necessary for sustainable management of forest resources. There is clearly therefore an increasing government awareness of the economic, food security and environmental significance of non-irrigated area's land use, and a commitment to addressing them.

35. Despite the above government and donor supported efforts, the process of degradation within the majority of arid and mountain landscapes is continuing, and in many cases is likely to accelerate. There remain major challenges both in pasture use and forestry sector over land tenure and user rights. This is a particularly stark issue in the pasture use context, as at this point in time, households are not adequately recognized as land users and thus have no official pasture use rights, despite the fact that in many areas household livestock outnumber those on official farms. Pasture land belonging to semi-state farms near settlements is by necessity utilized by communities but without any official tenure, regulation or systematic management. As the population of these settlements and their livestock continue to grow this is leading to increasing pasture degradation. In forestry territories the forestry agency has inadequate resources to systematically develop and manage them. Managerial, and material investments by local communities and the private sector has been severely restricted by the inadequate security of tenure and use rights, thus providing inadequate incentive for them to be involved. New effective approaches to land use, based on greater involvement of rural communities and land users, are unlikely to be replicated unless a suitable enabling environment for this is created, including slight but significant changes in tenure conditions. Likewise, basic principles of sustainable land management in arid areas will not be embedded in national policies, strategic planning, legislation, regulatory mechanisms or institutional mandates, and will not be applied to practical land use management. Mechanisms and approaches tested by donor supported initiatives for allowing land users to undertake regional or district integrated land use planning will remain isolated examples.

Long-term solution and barriers to achieving the solution

36. The long-term solution proposed by this project is to change the trajectory of the baseline approaches towards investments into integrated landscape management, and put in place accompanying policy, institutional and methodological mechanisms for an integrated approach to the sustainable management of forests and extensive rangelands in non-irrigated landscapes in the arid mountains, semi-desert and desert landscapes of Uzbekistan, thereby securing the flow of multiple ecosystem services and ensuring ecosystem resilience to climate change. There are, however, a number of barriers to implementing this solution, as described below.

37. Barrier 1: Practical know-how barriers to change the baseline course of action and upscale successful SLM experience and lessons, alongside with limited practical capacity or experience to undertake district level integrated land use planning: A major practical barrier to the effective application of sustainable land use practices, particularly in the context of the low priority forestry and pasture use sectors, is the limited awareness of practical examples and experience of applying such practices in the field. There exist useful pilot initiatives on pasture management, joint forestry and community forest management, and application of district/ sub-district integrated land use planning. However, these have been tested only at very limited sites. Though they have shown that the fundamental principles are applicable to Uzbekistan, they have not been proven or tested sufficiently to ensure that adequate lessons have been learned for widespread application. It is critical to widen and better refine the practical application of new approaches to SLM, and to build the practical experience and know-how of key national and local authorities about how such approaches and practices can be most effectively applied in the field. This will allow for their up-scaling and widespread application.

38. Currently, land use is seen in a very stratified, narrow way (arable land is just for crops, rangeland just for livestock production, etc.). There is a need to demonstrate that multi-functional use (e.g., forestry can produce timber, fuel, fruit, NTFP's, grazing, hunting incomes, watershed protection, natural disaster risk reduction, biodiversity conservation, etc.) can be ecologically, economically and socially sustainable. Additionally, practical field experience needs to inform the required legal, institutional and policy reforms highlighted above (paragraph 1, Barrier 1).

39. Though there is some legal and institutional basis for integrated land use or "territorial" planning, there are no established mechanisms and little practical experience in applying such planning at the district level. There is currently little recognition that integrated approaches are essential in order to maximize productivity while maintaining sustainability, and that mechanisms and institutional responsibilities for undertaking this effectively need to be clearly defined. There are no clearly established ways by which different sectors of land use are systematically planned over a defined time period. Planning is reactive (not directional), responding from year to year to output targets from central authorities that can rarely be met. If integrated planning occurs it is largely at the initiative of local district administrations, and not as part of standard district level procedures.

40. Furthermore, soviet-era economic and land use planning approaches tended to be highly centralized and narrowly focused on a sector basis. Following independence, there have been extensive reforms of institutions and in the process institutional responsibilities have become further blurred. At the same time, the relevant institutions have lost internal experience and capacity due to declines in government incomes and emigration. District authorities often have to incorporate cross-sector planning out of necessity to meet basic local needs from limited budgets (for example forestry may coordinate with communities regarding fuel wood supplies for winter) but they do not have a clear responsibility in this regard and limited resources and know-how on how to carry out such planning effectively.

41. Barrier 2: Inappropriate structure (institutional, legislative and policy) and absence of mechanisms and experience to undertake cross-sector, integrated natural resource use planning: Though the GoU has undertaken major reforms in the agriculture sector, the majority have been targeted to irrigated agriculture. Land use in other sectors, such as extensive pasture, forestry, and other arid land use, have not undergone any comparable level of reform and remain, in practice, largely unchanged from the Soviet-era. The rangeland policy, for instance, dates back to the Soviet era and no longer fits the national development transition towards a free market system. In the new post-independence system this policy leads to poor land use practices because many of the conditions from Soviet times are no longer present. It provides little or no scope for local land users and the private sector to play a constructive role. There is no strategic plan for the extensive rangeland sector relevant for the post-independence environment. Other more recent policies need updating because they have either not kept up with reforms in the agriculture sector and the general economic changes since independence or did not have sufficient institutional commitment at the time they were prepared to allow them to be implemented effectively.

42. For instance, the revised and updated National Biodiversity Action Plan prepared in 2008 has not been officially approved, does not have financing, and is not being implemented. The current National Forest Programme has not fully utilized the FAO supported Forestry Plan completed in 2010. Issues of cross-sectoral linkage and/ or competition (e.g., energy/fuel wood needs of local population and forestry, forestry and extensive grazing, fodder needs of extensive grazing and fodder supply by irrigated agriculture) are not recognized in the policies and strategic planning of these sectors, except perhaps at a very local level. Thus, there is a need to update sector policies related to land use in order to ensure real "buy in" and support.

43. There is a need to adjust development objectives for arid desert, semi-desert and mountain land use, accompanied by a reorientation of policies, laws and institutional frameworks that govern use of these lands. Existing conditions require reassessing and diversifying from historical products such as Karakul sheep skins and wool (which were strategic priorities in Soviet times) towards meat production that directly meets needs of the current Uzbek economy.

44. Legislation, particularly for pasture use and related articles under the Land Code, needs to be urgently updated and rationalized in order to support management approaches that really respond to the economic and social needs of the country while maintaining sustainability. For example hayfields and pasture exist both as a specific agricultural land category but also within various other land user jurisdictions and laws such as forestry fund territory covered by the Forest Code, and lands classified as environmental protection areas, defense, communications, etc. The current legislation related to pasture

does not in practice recognize the role or provide viable tenure options for household or "dekhan" pasture users who now sometimes constitute the majority in some areas. A case in point is the project target sites where there are over 21.5 thousand dekhan (household) farms with over 300,000 sheep and goats but they have legal tenure over zero hectares of pasture (in practice, they utilize shirkat or forestry territory mostly). In some cases existing laws or sub-laws, introduced to bring changes, do not in practice have an impact because there is a lack of capacity on the ground to apply them. There is therefore a critical need to reform the pasture use legal framework, within the context of a clear long term development objective, so that it can facilitate achievement of long term development goals rather than hinder it. There is also a need to build the awareness and capacity to put them into effective practice. Other legislation, including the Land Code, Forest Code, Law on Flora and Fauna, etc., need adjustment in order to better integrate their purpose and to allow a more flexible and holistic approach to land use planning and management.

45. Changes in policies (and legislation intended to support the realization of those policies), will inevitably have a knock on effect on the institutional structures and their mandates. Changes in policy will for example require institutions to adjust their mandates and function, and changes in legislation will require different approaches to implementing them. Institutions will need to re-orientate from being the sole managers of land to being facilitators by providing a support system for non-state actors (farmers, local communities and households) to manage land, something that is currently not taking place.

46. A classic example is leshoz (forestry enterprises) which have systematically failed to implement their current objectives because, in most cases, the objectives are not feasible given their current structure and financing. They must seek new approaches and mechanisms for achieving their goals and this includes seeking collaborations with other stakeholders, such as joint forest management with local households that can achieve much more than the leshoz alone and with mutual benefit for both leshoz and local populations.

47. Another example is the Karakul shirkats ("cooperative" farms) in desert areas that are essentially still state enterprises, with no decision-making flexibility that would allow them to operate profitably or sustainably. As a result of this, and other factors, these shirkats are almost all loss-making, and have extensive accumulated debts with state suppliers and tax authorities. Periodically the state has to "write off" these debts to prevent the shirkats' collapse. As of October 2012, the debts of the Karakul sheep-breeding entities of the "Uzbekkarakul" Joint-Stock Company stood at 26.484 billion (approximately 13.5 million USD). The lion's share of this sum was the taxes for using pastures. In line with the Decision of the Republican commission in 2012 (protocols dated March 31, 2012 and April 2, 2012), the fine for overdue taxes and financial infringements for 5.394 billion (approximately USD 2.7 million) were written off. Thus, in effect, the state is massively subsidizing the maintenance of an economically and environmentally unsustainable system in order to maintain the *status quo*. On the other hand, the limited number of private livestock farms, despite no state support, reportedly pay taxes reliably and make investments in infrastructure, suggesting that with greater flexibility they can be profitable. These facts clearly indicate a need for reform and for state institutions to reduce engagement in direct management and take on a more regulatory/ facilitating role. Various factors, such as lack of understanding of the problem within the system (particularly at the central level), lack of known options for change, and an inevitable reluctance to risk disturbing the *status quo*, inhibit change and thus there is a need for outside support to overcome reform "inertia".

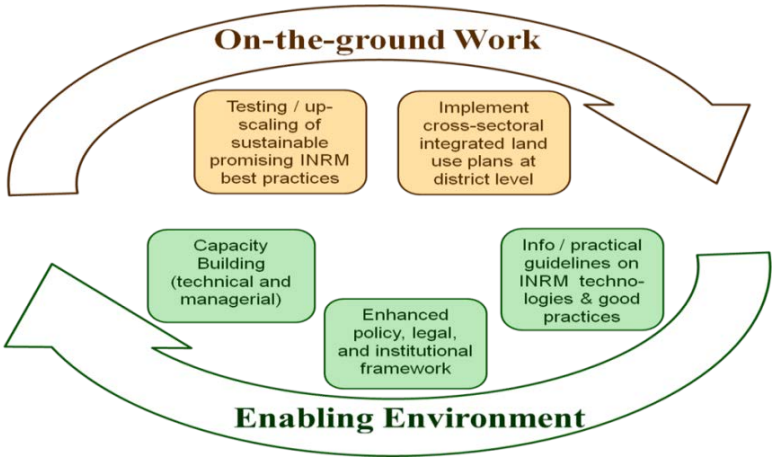
48. Making and sustaining the required changes, and applying adaptive and flexible adjustments to meet challenges in the future, will of course be extremely challenging for players at all levels. The land use management system is still grounded in the conceptual legacy of the former centralized planning system of the Soviet era. There are wide knowledge gaps within institutions and among land users about the situation on the ground, the options available for improving land use, and even basic concepts of sustainable pasture, forest and biodiversity use and integrated land use management. At central levels of government, limited strategic thinking has been applied to the role that arid desert, steppe and mountain landscapes should play in the country's long term development and environmental, food and social

security. Though the government is investing substantially in relevant higher and vocational training, particularly at regional and district levels, such investments have mainly focused on infrastructure (construction of colleges, etc.) and equipment, but not the development of suitable new curriculums that target priorities of rural populations under current circumstances, or staff trained to develop and deliver such curriculums. There is therefore a crucial need to build capacity at all levels, if reforms are to be meaningfully delivered and sustained.

2. STRATEGY

Rationale and summary of GEF Alternative

49. The project will build upon existing government programmes for land management by facilitating the development of integrated land use planning (ILUP) approaches, with emphasis on decentralization and bottom up planning as opposed to the existing highly centralized top-down system. This will include the wider application of sectoral good practices in pasture and forest management. Building upon the experience gained in the field and on the lessons learned from past and existing GEF funded initiatives and similar efforts, the project will create a more conducive policy and legal framework for sustainable and better integrated land use planning and management, and build national and local capacity for practical implementation of such planning in the field. Existing best practices and approaches will be replicated at a wider scale within selected representative districts.



50. Even though there exist isolated efforts to demonstrate sustainable rangeland and forestry management in arid areas of Uzbekistan, widespread adoption is not taking place mainly because the scale of these efforts has been too limited and the policy, legal, and institutional environment is not supportive. There is a need to adjust policy to make it clear that the objective of the state is to empower local land users (to be addressed by Component 2 of the project), secondly to modify legal and institutional frameworks accordingly (to be addressed by Component 2 of the project), and thirdly to demonstrate success of sustainable forest and rangeland management in the field (to be addressed by Component 1 of the project). Each of these 3 steps is dependent on the other.To get acceptance for policy changes new approaches will have to be proven first at a field level.

51. Project Demonstration sites: The two pilot districts where demonstrations are to take place are the Zaamin district located in Djizak province, and Karakul district in Bukhara province. These districts were selected from all relevant districts in Uzbekistan via a systematic process that utilized a clear set of criteria. A detailed description of the selection criteria used to identify the two pilot districts for the project, along with maps, can be found in Annex1.Selection criteria were as follows:

- firstly, they are representative of the main arid, non-irrigated landscape areas which are the focus of the project and which cover the majority of Uzbekistan's territory i.e. desert (Karakul district in the Kyzylkum desert) and steppe, foothills and mountain (Zaamin district);
- secondly, these two districts are representative of the typical socio-economic and land use situation of these landscapes – Karakul contains a large quasi-state livestock (Karakul sheep) farm and has very low population utilizing extensive desert pasture and forestry (shrub) territory, while Zaamin has a combination of steppe and mountain pasture, significant areas of fragile rain-fed arable agriculture and forests (natural and plantation forests of fruit, nut, timber, and conservation areas), a much higher population, a much larger percentage of livestock and land use in the hands of the non-state sector; and
- thirdly, UNDP and other development partners have past relevant initiatives in, or close to, these two districts and thus have existing on-ground knowledge, capacity and relationships with local district authorities and stakeholders which will greatly enhance implementation.

Fit with the GEF Focal Area Strategy and Strategic Programme

52. The proposed project is programmed under the Land Degradation Focal Area for GEF-5, specifically with Land Degradation Strategic Objective 3 (LD-3): "Reduce pressures on natural resources from competing land uses in the wider landscape". The project's contribution to GEF indicators is summarized in the table below. The requested GEF funds will play a catalytic role in mobilizing and changing the trajectory of large baseline investments from GoU towards up-scaling of integrated sustainable land management practices and creation of an enabling environment of relevant policies, legislation, and institutional capacity. The expected environmental benefits are:

- Increasing soil carbon stocks and soil organic matter;
- Carbon sequestration;
- Decreasing soil erosion, landslides incidence and soil loss;
- Reduction of sediment loads to rivers and streams, as well as siltation and damage to downstream water reservoirs;
- Improved conservation prospects of globally important species and habitats harboured in arid mountain, desert and semi-desert areas affected by land degradation.

53. The project will be implemented within the framework of the GEF Central Asian Countries Initiative for Land Management (CACILM).

Table 8. Project Contribution to GEF Indicators

GEF Strategic Objective	Expected Outcomes	GEF Indicators	Project Contribution to GEF Indicators
LD3: Reduce pressures on natural resources from competing land uses in the wider landscape	Outcome 3.1: Enhanced cross-sector enabling environment for integrated landscape management	Coordinated and harmonized policies among relevant sectors in place	3 national policy/ strategic planning documents (Livestock/pasture, Forestry, Rain-fed arable agriculture) Improved inter-ministerial coordination mechanism on land use planning
		Increased coordination among sector extension services or related institutions	At least 8 institutions related to extension services have increased coordination of curriculum and mandates (Rural vocational colleges in target districts, zoo-technical points in target districts, district leshoz, Karakul Institute, State Agricultural University Samarkand)
		Information on SLM (wider landscape) technology and good practices disseminated and used	At least 4 practical guidelines developed on how to apply best practices and lessons learned for a) District Integrated Land Use Planning, b) Sustainable pasture and livestock, c) Forestry, d) Rain-fed arable agriculture. Mechanisms for dissemination via

GEF Strategic Objective	Expected Outcomes	GEF Indicators	Project Contribution to GEF Indicators
			extension institutions established.
	Outcome 3.2: Good management practices in the wider landscape demonstrated and adopted by local communities	Increased land area with demonstration activities implemented by sector, incl. agriculture, forestry, planning	Hectares of land with SLM demonstration activities: During project life-cycle at least estimated 6,000 ha of improved pastureland, 1,000 ha forest land, 500 ha of rainfed area; During subsequent 10 years after project assuming annual 2% replication rate at national level estimated project impacted area: over 4 mln. ha of rangeland, close to 0.6 mln. ha of forest cover area, 150,000 ha of rainfed area
		Maintained land cover	Hectares of land with unchanged cover by economic sector (status quo): For 2 pilot districts total forestry land 226,000 (142,000 ha with forest cover, the rest is sparse or rangeland) and 465,000 ha of pastureland
		Avoided GHG emissions from land cover changes	Tons CO_{2eq} per hectare of land[2] Without intervention, districts with total forest cover of 142,000 ha, assuming 2% degradation rate per year, would lose a total of 2,800 ha of forest cover equivalent to 32 t/ha/year of CO_{2eq} Over 5 and 10 year periods this will amount to 448,000 and 896,000 t of CO_{2eq}

Project Goal, Objective, Outcomes and Outputs/activities

54. The project **goal** is to "reduce competing land use pressures on natural resources of arid non-irrigated landscapes in Uzbekistan".

55. The project **objective** is "to promote integrated management of rangeland and forests at the landscape level (focus on non-irrigated, arid mountain, semi-desert, and desert landscapes) to reduce pressures on natural resources from competing land uses and improve the socio-economic stability of communities."

56. In order to achieve the project objective, and address the barriers (see section on Long term solution and barriers to achieving it), the project's interventions have been organized into **two Components** and **five Outcomes** (this is in line with the components and outcomes presented at the PIF stage):

Component 1:Field level investment to transform the baseline approach -Promising best practices on sustainable rangeland and forestry management and INRM planning up-scaled in target districts of Uzbekistan.

Outcome 1.1: Improvement in the vegetative cover of approximately 6,000 ha of rangeland and 1,000 ha of forestry fund territory due to enhanced land use management using sustainable INRM best practices, accompanied with approximately 50,000 people with secure and sustainable livelihoods (*FA Outcome 3.2)*.

Outcome 1.2: Enhanced mechanisms for cross-sector integrated planning of sustainable natural resources management at district level to improve vegetation and forest cover, decrease moving sands and erosion, and reduce dust storms and other such events. (*FA Outcome 3.2)*

[2] Estimated totalforest cover wood biomass is two districts is 3,296,000 m^3x 0.75 (coefficient to convert into tonnes) =2,472,000 t / 142,000 ha of forest cover = 17.4 t/ha. Wood carbon content 17.4 t/ha x 50% carbon = 8.7 C/t/ha x 3.67 CO_{2eq} = 32 t of CO2 e/ha

Component 2: Policy, legal and institutional mechanisms- An enabling cross-sector environment and in-country capacity (at system, institutional and individual levels) for applying integrated landscape management in arid mountain, semi-desert and desert areas of Uzbekistan.

Outcome 2.1: Enhanced policy, legal, and institutional framework for implementing integrated and sustainable management of rangeland and forests (*FA Outcome 3.1*)

Outcome 2.2: Adequate technical and managerial capacity for INRM at all levels of land use institutions for the development of policies, legislation and field operations (*FA Outcome 3.1)*

Outcome 2.3: Improved access of policy makers to tested INRM best practices and methodologies for improved land management

COMPONENT 1

57. Outcomes under Component 1 are designed to demonstrate within two representative districts how improvements in the sustainability and productivity of land use can be achieved. This will be undertaken through the systematic up-scaling of a set of well-balanced existing experience and know-how tried at a small scale in Uzbekistan in an isolated fashion. This project, by applying them at a larger scale and in a carefully combined manner, will test and demonstrate the larger cumulative benefits the application of sound management can have. Furthermore, the project will support local stakeholders in the development of practical methods for better planning of land use at district level and for maximizing benefits from integrating such land use. In this way the project will provide examples and practical experience from two typical districts of how land use can be improved and competitive pressures reduced through the systematic and combined application of good practices and sound holistic planning. The value of this in terms of facilitating wider replication of improved land use cannot be underestimated because up to this time no such examples have existed.

58. Additionally, the process of applying these good practices in the field will help to highlight and clarify the specific legal and institutional barriers experienced by land users which hamper improved land use and the wider policy implications. This will provide a vital practical grounding for work under the project's 2nd outcome. The outputs necessary to achieve this component are described below.

Outcome 1.1: Improvement in the vegetative cover of approximately 6,000 ha of rangeland and 1,000 ha of forestry fund territory due to enhanced land use management using sustainable INRM best practices, accompanied with approximately 50,000 people with secure and sustainable livelihoods

Output 1.1.1: Carry out an adequate inventory and classification of all types of lands in project sites (pasture, rain-fed arable, dry land forestry, and others)

59. In order to undertake effective planning and make valid decisions on land use, it is first necessary to know what land resources and potentials exist, and what current use is. No comprehensive inventory has been carried out for over 10 years in Karakul and Zaamin Districts. Thus the project will, as a first step, support a detailed inventory and evaluation of land resources in the 2 target districts of Zaamin and Karakul, looking at current and potential use (see Annex 2 for a draft terms of reference for this inventory). This will be carried out in collaboration with relevant departments of GKZ and specialists of the district authorities. GKZ has significant capacity in this regard including existing equipment and technical expertise to prepare integrated cartographic and GIS materials.

60. The project will build on this technical expertise and capacity by adding an understanding of key materials needed for land use option analysis and integrated planning. These will differ in some respects from the "business as usual" approach as they will retain an "open-option" perspective to land use in

districts rather than being limited to what currently exists (as is normally used). The process of planning and executing the district level land use inventory, and the experience gained by national counterparts, will thus in itself become a vehicle for building improved land use capacity.

Output 1.1.2: Promising good practices on pasture management and livestock husbandry, forestry and biodiversity management from Uzbekistan and the region, replicated and up-scaled in project sites

61. As discussed previously there exist within Uzbekistan, and the region, a variety of land use good practices applicable to desert, semi-deserts and mountain landscapes which have shown promise. Good practices for pasture land use include: long term pasture user rights for local populations; mechanisms for collaborative pasture use such as pasture use commissions; grazing management based on carrying capacity, grazing rates, rotation, etc.); improved fodder distribution and incentive for fodder production; joint state/private veterinary services; mid to long term strategic planning by large quasi-state livestock farms to improve economic viability and ensure investments (such as wells) necessary for sound management; simplified monitoring as a basis for better regulation; more appropriate and applicable normative regulations; improved capacity and institutional clarity of regulatory bodies at district level to enforce land use norms; and appropriate and pragmatic mix of financial and administrative penalties and incentives for regulating pasture land use.

62. In the forestry land use context examples include: provision of secure long term user rights over forestry land and biodiversity resources for the local population and adjusted incentives to ensure interest of local population in their sustained management (i.e. joint forestry management, community-based forest management);legal and administrative adjustments to allow and incentivize private forestry and biodiversity use, formalized systems for fuel wood planning and distribution; community and relevant state authority collaboration to address priority local environmental threats (to control / reduce / avoid economic damage from moving sands, gullying, land/mud slides, water catchment zones, etc.); collaborative planning for local water catchment zones in arid mountains, etc.; collaborative planning to meet fuel wood needs of rural settlements and communities in sustainable ways.

63. However, the limited geographical scope of these practices to date means there is little practical experience or know-how regarding their application. This is a significant practical barrier to their up-scaling and widespread application and this output is aimed at addressing this know-how gap.

64. Based on a review of relevant best practices undertaken during project preparation phase, and following consultation with national and international development partners, it is planned to replicate and further test a set of natural resource best practices within the two demonstration districts (see table below) that are assessed as having the most potential to positively impact sustainability of land use within the target districts of the project. These will not be applied in isolation but as integrated “packages” of interventions in order to ensure compatibility and mutual support or amplification of the benefits.

65. Key to making them work effectively will be the active understanding and participation of local land users themselves. In order to ensure this, the project will make concerted efforts to build awareness of the key stakeholders (state farm managers, district forestry officers, sub-district representatives, village leaders, local household heads) on the interventions being planned and receive their feedback on how they can be best applied in their specific situation. Visits by the relevant stakeholders to other sites in Uzbekistan where the specific best practices have been piloted previously will help build their appreciation of what is possible and hopefully stimulate ideas on practical application in their own conditions. In undertaking the replication of best practices and testing them for wider application, the project will need to find a balance between: a) supporting their implementation b) allowing local stakeholders to do as much of it as possible themselves. Insufficient support might jeopardize the success, but too much support would fail to demonstrate the true replicability of the practices (the project will not be there to support wider replication in other relevant districts in the future). Thus getting this balance is crucial if meaningful lessons will be learned regarding recommendations and guidelines for national replication. In this context the project needs to establish an effective and strong district level presence

with technical support for implementation being 'on tap' (see Management Arrangements). This is equally necessary for the development of district level Integrated Land Use Management Plans (see details under Outcome 1.2 below).

Table 9. Provisional List of NRM Best Practices to be Applied in the Two Target Districts[3]

Proposed natural resource management best practice		Districts where practices are to be applied	
		Zaamin	Karakul
Pasture / Livestock practices			
1	Re-establishment and refining of grazing management, rotation and herd structure practices by shirkats and large private livestock farms Benefit: Improved vegetation cover and pasture productivity as a result of more balanced grazing pressure (i.e. reduced over grazing of some areas and under grazing of others) Piloted: UNDP- GEF SLM Project Achieving Ecosystem Stability in Aral Sea and Kyzylkum Desert	X	X
2	Establishment of household / village collaborative pasture using structures and development of their capacity to apply effective pasture management (calculate carrying capacity, rotation, herd size/composition, etc.). Benefit: Pasture under collaboratively managed use rather than "open-access", so improved sustainability and resilience Piloted: GIZ (Pasture Project)	X	
3	Rehabilitation / sustainable use of wells using renewable energy or more efficient/reliable methods and establish a mechanism for maintenance Benefit: Allows to expand the area of used pastures reducing livestock unit per 1 hectare of pastures Piloted: UNDP-GEF SLM project (see above)	X	X
4	Establishment of public/private veterinary points: collaborative state and private partnership to ensure delivery of basic veterinary services to livestock owners, and provide technical / advisory services. Benefits: Cost effective and sustainable mechanism for ensuring effective implementation of state programme on livestock disease control and provision of key technical and advisory services (insemination, appropriate technology, pasture and herd management). Piloted: UNDP GEF SLM project, UNDP GEF BD Tugai and Nuratau BR projects	X	X
5	Establishment of a Commission of pasture users at Rural Councils or at the level of khokimiyats (district authorities) Benefit: Creation of a control mechanism over the use and regular monitoring of the condition of pastures Piloted: UNDP GEF SLM, UNDP GEF BD Tugai and Nuratau BR Projects	X	X
6	Cost effective enriching of pastures (fenced quadrants as "seed banks", and spot / strip artificial seeding in degraded pasture areas) Benefit: Low cost method for accelerating recovery of overgrazed pasture and improves pasture quality/productivity by providing sources for natural (wind) reseeding Piloted: Uzbek Research Institute for Karakul Sheep, UNDP SLM	X	X
Forestry practices			
1	Establish desert protection "forest" strips though collaboration of local Lezhoz and local communities to reduce impact of moving sands on key infrastructure Benefit: Cost effective mechanism for preventing development of moving sands and damage to infrastructure on long term basis. Piloted: UNDP SLM		X
2	Joint forestry management (i.e. between local leshoz and local households) to develop State Forest Fund land requiring afforestation and orchard/nut plantations in mountain foothills Benefit: Additional investments in forestry (beyond that available to the Lezhoz from the state) leveraged from local population and long term sustainable incomes (for Leshoz and households) created. Improved vegetation cover, CO_2 sequestration and reduction in wind/water erosion. Piloted: UNDP Tugai and Nuratau BR, GIZ in Tajikistan	X	
3	Sustainable Fuel wood Planning: Collaborative planning between Leshoz and local authorities to ensure sustainable sources of fuel wood supplies from existing and newly planted areas for rural populations	X	X

[3]This list will be finalized and developed into integrated intervention packages during the project inception phase.

Proposed natural resource management best practice		Districts where practices are to be applied	
		Zaamin	Karakul
	Benefit: Fuel wood extracted from sustainable sources, reduced cutting of vegetation in desert, steppe and mountains Piloted: UNDP GEF BD Tugai and Nuratau BR projects		
Rain-fed Arable farming practices			
1	Build dekhan and private farmers' capacity to apply optimal schemes of grain and fallow/fodder rotation based on priorities of rain-fed arable agriculture within the integrated land use context of the district (soil, climate, economic and social parameters) Benefits: Improved sustainability and mid/long term productivity of rain-fed arable lands, increased resilience to poor seasons/climate change, improved contribution to the overall integrated land management needs of district Piloted: Gallaaral Grains Research Institute, ICARDA, Samarkand Agricultural Institute	X	
2	Introduction, demonstration and wider replication of zero / minimum tillage methods in rain-fed arable areas Benefits: Resilience and sustainability of grain and other crop production in rain-fed arable lands improved, reduction in investment needs (fuel, labour, machinery), and reduced CO_2 emissions Piloted: World Bank, ICARDA, ZEF	X	
3	Use of new or improved varieties of crops better suited to specific environmental conditions and with clear economic and environmental benefits for integrated land use in the district context (fodder crops to help reduce fodder deficits). Benefits: Diversified crop basis with increased resilience and which complement other land use and socio-economic needs in the districts Piloted: Gallaaral Grains Research Institute, ICARDA, Samarkand Agricultural Institute	X	
Other			
1	Introduce sound agri-business training for shirkat and private/ dekhan farmers Benefit: Improvement in rationality of decision making based on practical resource and economic factors and improve profitability of livestock and arable farming enterprises and thus capacity to make key investments for long term improvement of sustainable management Piloted: UNDP SLM, Nuratau BR	X	X
2	Collaborative planning and coordination of small watershed management with local land users (local communities, forestry and livestock enterprises): Benefits: Protection and maximization of water run-off from streams in mountain and steppe areas, reduction in water erosion and top soil loss. Piloted: GIZ (Farish)	X	
3	Value addition to local agricultural produce and NTFPs: Small scale processing of local production to add value and support with marketing. Benefits: Increase and diversify incomes and socio-economic returns of existing agricultural and non-timber forest products (milk, skins, fruit, nuts, honey, rhubarb, medicinal and aromatic plants, etc.) and reduce pressure for over utilization of natural resources. Piloted: UNDP SLM, Nuratau BR, Tugai, ELS; GIZ, others.	X	X
4	Introduction and local production of appropriate technologies with environmental, economic and sustainability benefits (renewable energy pumping systems, fuel wood efficiency or alternatives, energy efficiency technologies, etc.) Benefits: Availability of locally produced and economically viable technologies with long term environmental and economic value (i.e. reduce cost of developing and using wells, reduce fuel wood demand, provide electricity to remote locations cost effectively, etc.), and diversify local economy (small scale production of equipment / services by district / local entrepreneurs). Piloted: UNDP Nuratau BR, Tugai, GIZ	X	X
5	Appropriate Tourism development: support the development of appropriate tourism models (household guest houses and services, trekking, horse trekking, etc.) as basis for diversifying rural incomes. Benefit: Reduce need for over utilization of natural resources (grazing, forestry etc.) through alternative income sources and provide incentives for protection of natural landscapes. Piloted: UNDP Nuratau BR, Tugai, etc; EU, and others.	X	X

66. The project will continue to seek, during implementation, viable and well placed project partners for development and implementation of good practices, including national and local NGO's, small grant opportunities such as the GEF SGP and bilateral donors, and other interested parties.

Output 1.1.3: New and refined technical extension services at existing and newly developed local institutions or structures

67. Currently there exist no systematic mechanisms for delivering agricultural or rural livelihood extension services to rural populations in Uzbekistan, particularly in the non-irrigated areas. Some unsystematic advice/guidance is provided via academic institutions such as the Uzbek Research Institute on Karakal Sheep Production and Desert Ecology and the Agricultural Institute in Samarkand, but such institutions are not ideally suited for this task because (a) they are academic institutions and not adapted to providing the kind of practical help required by rural populations / land users, (b) they do not have an effective mechanism or on-ground network of staff to effectively deliver the practical land use advise and support required.

68. There have been some successful pilot initiatives by various projects in Uzbekistan to test new approaches to delivering extension services such as the establishment of Zoo-technical (veterinary) points managed on a joint state/commercial basis. These have a mandate and support from the relevant state institutions (Department of Livestock, Poultry, Apiculture and Aquaculture, MAWM) to deliver components of state programmes (vaccination programmes, etc.) but also undertake commercial provision of veterinary and livestock / pasture management services. Such collaborative state/private mechanisms have some potential to sustainably extend the delivery of key services and the project will utilize this approach as appropriate in order to support better livestock and pasture management (see Annex 3 for more details on Zoo-technical Veterinary Centres).

69. Another potential avenue of delivery is via the several new district and sub-district vocational colleges established under an extensive government programme of investment. The project will work with such colleges in the target districts to build their capacity to deliver useful land use technical support. Specifically, the project will support them to prioritize vocational training to better target it for the real needs of the local population and improve capacity to deliver it based on experience gained in the field.

70. There has been some experience in both Uzbekistan and the region with local level establishment of "Farmer Field Schools" based on the FAO model widely practiced across the world. The project will apply the model within the target districts as found appropriate. In particular this approach is relevant to dekhan and household horticultural land, which, though of relatively small area, are of key import in rural livelihoods (see Annex 3 for more on Farmer Field Schools).

71. Finally, the project will seek to better harness regional academic institutions such as the Karakul Institute and Samarkhand State Agricultural University in support of the local level structures/stakeholders discussed above. In this way their real strengths can be harnessed and a basic for a useful exchange between local extension mechanisms and regional academic institutions can be established.

Outcome1.2: Enhanced mechanisms for cross-sector integrated planning of sustainable natural resources management at district level to improve vegetation and forest cover, decrease moving sands and erosion, reduce dust storms, and other such events.

72. This outcome is designed to develop and test a mechanism for holistic, integrated, and participatory planning and development of land use within the two target districts of the project, with the mechanism being effective and viable within Uzbekistan's current land governance system. This will be a first step at the ground level for such planning approaches. Based on experience gained in the target districts, the project will facilitate replication in other districts.

73. Apart from bringing direct benefits to district level land use effectiveness, the experience gained from wide spread application of such planning approaches at district level is intended, in the long term, to build sufficient experience and practical knowledge to allow up-scaling and application at provincial (oblast) level. By that stage, sufficient capacity will exist within the land use management system to allow national level application. Clearly, achieving the adoption of integrated land use approaches at all levels in Uzbekistan is a massive and long term objective and well beyond the scope of the project. However, by putting in place the awareness, skills and experience required at the ground level, and establishing the policy and commitment at national level, the project seeks to create the right conditions for pragmatic, integrated land use management to grow from the bottom up. In pursuit of this strategic approach the project has the following outputs under Outcome 1.2.

Output 1.2.1: Two district level integrated land use plans elaborated by district authorities / local stakeholders, and effectively applied to a landscape of approximately 30,000 ha.

74. Integrated Land Use Planning (ILUP) provides a mechanism for making comprehensive decisions about the use of land and natural resources. It sets the coordinated management direction for future uses of land and resources and allows for the evaluation of the success of management activities over time. ILUP is future-oriented and iterative, allowing plans to be adjusted in response to changing circumstances. Planning is an integral part of the management process for public lands and resources. It provides a means by which decisions are coordinated among responsible agencies and by which land use and resource management conflicts and issues are resolved.

75. The development and initial implementation of 2 district level integrated land use management plans will involve, in brief: identification of the best integrated land use options based on multiple criteria (economic, social and environmental) and the wider Oblast/national planning context; identification of the districts long term planning goal and mid-term objectives; and development of practical plan of actions (including responsibilities, timing, indicators of progress, financing).

76. These plans will incorporate the best practices being replicated in the districts as part of efforts to improve the overall productivity and sustainability of land use. In order to ensure that the integrated land use planning is a locally driven process, and that these plans have full ownership by all the district level stakeholders, the project will first undertake a process of building understanding about the benefits such planning can bring and the best means and approaches for carrying it out. In particular this will involve the introduction of participatory approaches new to local district authorities that will better ensure full participation of key stakeholders and public. These include bottom-up land use planning processes that directly involve actual land users in the process of defining, within the realistic context of the district and the national planning environment, mid to long term land use options and objectives and ensure that their inputs, agreement and role in implementation is clearly defined and transparent.

77. The project will then provide a mainly facilitator role in the process of the actual plan development in order to ensure it has the required ownership (i.e. that actual land users, local authorities, and local representatives of ministries are the primary drivers of its contents and that all have been fully consulted and have given consensual support). Though this may be a more difficult approach than the project leading the process or undertaking it directly, it is important in terms of building stakeholders consensus and commitment to practical implementation. Finally, the project will provide strategic technical support to the district stakeholders to initiate practical implementation of the plans and to build the experience necessary to bridge the inevitable gaps between planning and reality.

78. An initial methodology for undertaking the district level ILUM planning process was defined during the project preparation phase (see draft outline of contents in Annex 5), based on international best practice, and the practical experience gained by UNDP in Uzbekistan from similar district and community level planning efforts. The latter is extremely important in ensuring that the methodology and goals of the district planning process remain realistic to the very rigid and centralized system still prevalent in Uzbekistan today and that the resulting plans will be implementable. As this will be the first time such

district level land use planning has been systematically attempted, it will be important to carefully assess the lessons learned during the process and, on that basis, develop tools and guidelines for facilitating the replication of such planning in other districts.

79. Finally, it should be noted that the 2 districts where ILUMPs are to be developed offer the scope for demonstrating ILUM planning in an area with a transition of irrigated, pastoral, forestry/conservation area. Demonstrating this in transition areas while being an ideal approach from a "lessons learned" persepective, is also more complex. In the Karakul district, land use is comparatively simple with desert pasture (and some desert saxaul forestry areas), plus small area of irrigated/household plot territory. However, in Zaamin there is a much more complex land use situation with transition from irrigated to pasture, from pasture to rain fed arable, pasture to forestry, and forestry/pasture to conservation area/recreational areas. There is therefore scope within the two selected district for different complexities of land use planning from which useful practical lessons can be derived.

Output 1.2.2: One hundred and forty district level stakeholders receive training in the development and implementation of integrated land use planning and have knowledge / experience necessary to continue the application of such planning in the long term.

80. The project will disseminate materials developed on the basis of experience from Output 1.2.1 through regional workshops for representatives of district authorities and land use management agencies from throughout the relevant target landscapes. The workshops will also be attended and supported by key national actors from GKZ. Additionally, study tours for stakeholders from other selected districts within the project's target landscapes will be organized in order for them to see the results of implementation of ILUM planning, and to talk to those involved in the process. Finally, the guidelines and replication materials will be fed into the long term technical and vocational training reforms which form a key aspect of the project capacity building efforts (see Component2). Conservatively, the project aims to directly build the awareness and practical capacity of 140 key stakeholders from other districts and the provincial (oblast) level to undertake such planning in other districts. However, it is expected that in total some level of improved capacity in this regard will be much further reaching. During the process of disseminating the experience of the 2 districts in regard to ILUM planning, the project will assess level of opportunity to support replication in other districts and will facilitate such replication if feasible.

COMPONENT 2

81. This Component of the project is targeted at addressing the issues and constraints described under Barrier 2. In essence, this component of the project aims to further the re-orientation of the existing land use "mind-set' that is a legacy of the former Soviet Union centralized management approach, towards more strategic, long term, holistic and integrated approaches. Clearly this is a massive undertaking and the project must retain a realistic expectation of how far it can achieve this and the best strategic approach by which to have the maximum long term positive impact.

82. To this end, the project will support the development of an improved and more integrated policy / strategic planning environment, and on that basis initiate and lay the ground for legal and institutional framework changes that will allow the effective translation of land use management policy into practice in arid mountain, desert and semi-desert landscapes of Uzbekistan. If successful, this will create a suitable enabling environment for the land use best practices demonstrated by the project in its two target districts to be replicated in the future in other districts within non-irrigated desert, steppe or mountain landscapes.

83. Implementation of activities and the development of policy, legal and institutional results under this component will benefit significantly from the practical experience gained under component one. The process of applying different approaches to land use management and planning will help identify the concrete issues that need to be addressed and provide a basis for justifying such changes to high level

decision makers and policy makers and national institution staff that are often insulated from the ground reality of land use in Uzbekistan. The following three outcomes are envisaged in this component:

Outcome 2.1: Enhanced policy, legal, and institutional framework for implementing integrated and sustainable management of rain-fed arable land, rangeland and forests

Output 2.1.1: Updated or newly developed key sector policies and related strategic national planning documents for arid non-irrigated land use.

84. In terms of policy development, the project will support national government stakeholders in elaborating, or updating and refining existing policy documents and strategic long term plans related to pasture, livestock, forestry, rain-fed arable agriculture and other land use issues with direct relevance to them (for example fodder production in irrigated areas). At this stage, the project has identified the following specific areas for policy support.

85. Strategic national development policy for livestock and pasture use: Currently no real long term strategic planning is in place for the livestock and pasture use sector within the overall development planning of Uzbekistan. Past planning such as the Department of Livestock's (MAWM) "program on improvement of financial state and economic recovery of the karakul sheep-breeding farms (2007-2012)" and annual "Livestock Sector Development Programs" are operational/ administrative in character but not strategic. The absence of strategic planning that looks at the full potential of extensive livestock management and pasture lands in the overall development of the country and the need to sustain this over the long term means there is no unified vision about the direction the sector should be trying to take. Inevitably, the lack of such strategic direction means that practical changes on the ground have been slow (or non-existent) and unsystematic. In order to overcome this reform inertia, facilitate more concerted action to improve pasture use, and to undertake positive legal, institutional and operational steps, the project will support the development of such a strategic policy or plan by the relevant national agencies responsible as a basis for consensual action. This will be implemented by a) elaboration of various long term development scenario options for the sector, b) provision of an opportunity, via workshops and other consultative events, to clarify preferred options and reach general consensus, c) support the drafting of a strategic plan/policy for review and consideration by the government.

86. Strategic national development policy for forestry: Currently there is no strategic long term policy for the forestry sector within the overall development of Uzbekistan. There are, however, five-year "Forestry Development Programs" for each oblast that are approved by MAWM. However, these plans cover only forest fund territory managed by the Main Administration of Forestry (MAWM), are operational rather than strategic in purpose, and not national in organization or scope (focused at individual oblast level). A National Forestry Program which was more strategic and national in character was developed with the support of FAO in 2009 but this was never approved or endorsed by the government. Current policy focuses entirely on forests as having only an environmental security role and being state managed without recognition of the significant socio-economic values it has for both forestry enterprises and rural populations. The role of non-state actors and the importance of economic incentives are not adequately recognized. These limitations in current policy and management are key drivers behind forest degradation and loss and the limited success and scope of reforestation efforts. The project will undertake activities with the Main Administration of Forestry (MAWM) to revisit the National Forestry Program document and support further consultation and analysis of future policy directions. On this basis consensus will be reached within the Main Administration for Forestry, GKZ, The State Committee for Nature Protection, and others regarding the long term strategic development of forestry in Uzbekistan and approaches for achieving it. Subsequently, the project will support the finalization of a revised policy, facilitate its approval by government, and raise awareness about its contents.

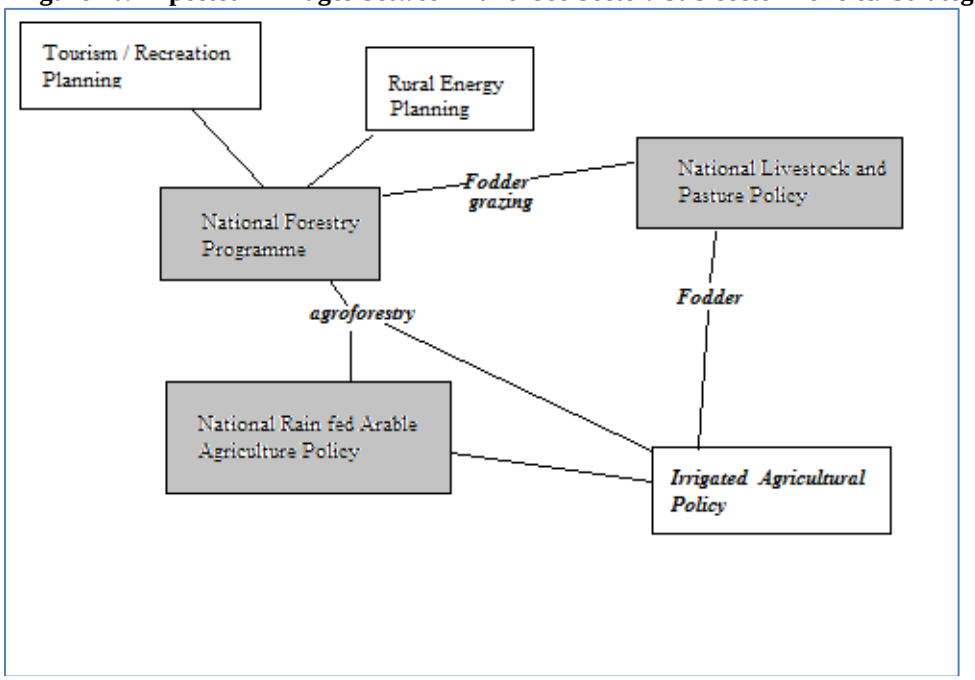
87. Strategic policy for development of sustainable rain-fed arable agriculture: Currently there appears to be no long term strategic planning regarding the development of the rain-fed arable agriculture sector, probably due to its rather limited significance in terms of production compared to the irrigated

sector. However, it does make a contribution to agricultural production and, more importantly, failure to take actions to improve sustainability will have very negative environmental results. As noted previously, the fertility of these areas has been constantly declining over the past 20-30 years and there is a growing risk of these areas descending into "dust bowls" with severe wind blow erosion, little vegetation and no land use value. It is important therefore to clarify what development contribution rain-fed arable lands can, and should, make to the Uzbekistan economy on a sustainable basis and what needs to be done to achieve this. The project will again support a process to develop a strategic development plan for rain-fed areas by MAWM through the following means: technical advice on viable options and sustainable approaches (partly based on practical experience in Zaamin district); workshops and consultations to reach consensus within and between the MAWM and stakeholders in the districts where rain-fed agriculture is practiced; and support to actual elaboration of a policy or strategic planning document.

Output 2.1.2: Linkages and synergies between the above sector policies and strategic planning documents to improve integration of efforts by relevant national institutions.

88. During the process of developing the above sector policy/ strategic planning documents, the project will support GKZ in the identification of important cross-sector considerations and issues. (The figure below captures the expected synergies between different sectors.) The project will instigate a dialogue between the sector stakeholders on a sector to sector basis as well as multi-sector discussions via working meetings and workshops. On the basis of agreement and consensus developed through these dialogues, cross-sector issues and collaborative approaches / mechanisms will be integrated into individual sector policy / strategic planning documents. An over-arching multi-sector briefing paper itemizing these will be developed as an annex to each sector document, and as a guidance document for the inter-ministerial land use coordination commission.

Figure 10. Expected Linkages between Land Use Sector/ Sub-sector Policies/ Strategic Planning Documents



Output 2.1.3: Relevant legislative changes and regulatory instruments developed and enacted on the basis of field experience gained in Component 1.

89. During project development, key areas of legislative change required to bring reforms up-to-date and to remove barriers to effective land use by actual land users in non-irrigated landscapes (shirkats,

dekhans, and leshoz) were broadly identified. The task of the project will be to support national stakeholders to reach consensus on what exact form legislative change will take in order to fit policy and strategic planning objectives. Once this is done the project will prioritize those that it supports changing during the project lifetime, those it will help redraft (as a basis for post project enactment), and those it will only further facilitate dialogue and clarification on (as a basis for post project drafting and enactment). Some specific areas that legislation clearly needs upgrading are:

90. Pasture use: Pasture use is currently not covered by any specific law and is managed and regulated under numerous laws and by-laws including the Land Code, Law "On farming entity", Law on Agricultural Cooperative (shirkat), the Law on Dekhan Farms, various decisions of Cabinet of Ministers, etc. Clearly there is a need to adjust the legal instruments for managing the rational use of pasture, but at present there is no clear consensus on whether this is best done through a specific pasture law or through amendments to existing laws and bylaws, and inclusion of better mechanisms to implement them. The project will facilitate achieving this clear consensus and then implementing it (i.e. development of a pasture law or revisions to existing laws or both).

91. A priority to address is the current legal framework for shirkats and dekhan farms which are clearly deeply flawed. Shirkats were established from former kolkhoz (collective farms) as part of government reforms to transfer land use from direct state control to citizens. Shirkats are theoretically livestock cooperatives (Resolution of the Cabinet of Ministers No. 486 of 2003, "Model agreement on long-term lease of land plot by agricultural cooperative") but in practice their governance and management differs little from kolkhoz and their success in economic or rational land use terms is extremely poor. They suffer from having few of the advantages of either private or state entities but all the disadvantages of both. There is a need to carry out some fundamental adjustments to their structure to create really viable cooperative farms, or to break them up into private farms (or a combination of both approaches). A very clear legal framework for doing this will be necessary and a clear cut mechanism for oblast and district authorizes to practically enact it worked out. In the case of dekhan farmers, the main issue is their lack of recognition within the way the current legislation is implemented. Given the growth of rural populations, the number of livestock held by them and the ineffectiveness of shirkats, this is a recipe for pasture and socio-economic disaster and must be addressed. A better mechanism for allocating tenure and regulation of dekhan pasture use is required and mechanisms for implementing this (such as pasture user groups etc.) given legal basis. Other priority areas where legislative change is required will be identified during project implementation on the basis of practical field experience and detailed consultation with project stakeholders.

92. The project's role in the context of new or revised legislative development will be to facilitate the identification of legal options, in the context of any new policy or strategic plans, and to help the building of consensus on what concretely should be done. It will then provide direct technical support to elaborate the chosen options based on practical feedback from field activities under Component 1. In practice this will include: preparations of specific assessments of different legal options for achieving new policy or strategic objectives; workshops to review these options and build consensus; direct support to elaboration of laws and legal instruments; guidelines on how to achieve practical implementation (phasing in) of new legislation, including the institutional changes/adjustments required; and preparation and dissemination of awareness materials that build commitment, understanding and support for them.

Outcome 2.2: Adequate technical and managerial capacity for INRM at all levels of land use institutions for the development of policies, legislation and field operations (FA Outcome 3.1)

Output 2.2.1: National Coordination Council for Land Monitoring (coordinated by the State Committee for Land Resources and Cadastre) with appropriate set of documents defining institutional responsibilities for ensuring better integration of planning on rain-fed arable land, forestry and rangeland.

93. The project will specifically support changes to the National Coordination Council for Land Monitoring (under the State Committee for Land Resources and Geocadastre). The project will help assess the appropriateness of its mandate, how its mandate could be better achieved and on this basis provide specific recommendations and draft a set of documents defining institutional responsibilities for ensuring better integration of planning, particularly on forestry, rangeland and rain-fed arable agriculture. Furthermore, based on work undertaken under Output 2.1.1 the project will provide the commission with a briefing document that concretely details priority areas for better integration of planning and coordination/collaboration of different sectors, and the specific means by which to do this that have been discussed and agreed by the national land use department personnel directly responsible for policy enactment.

Output 2.2.2: Strengthened capacity of key institutions (Department of Livestock, Poultry, Apiculture and Aquaculture, and the Main Administration for Forestry)

94. This output is crucial in order to ensure the long term sustainable application of better land use practices. An improved legal, institutional and policy framework alone will not have any benefits unless there is the technical and managerial capacity to put it into practice. To achieve such an improvement in sustainable land use capacity will require both a short term and a long term approach: firstly, it will be necessary to build adequate immediate capacity to initiate change within the context of the project; and secondly to help establish mechanisms that ensure the longer term development of relevant national capacity to continue to develop the sustainable management of arid desert, semi-desert and mountain landscapes in the long term, post project.

95. Short term capacity development which is the focus of this output will be aimed at enabling project implementation and will be targeted to key stakeholders involved at different levels (from central government decision makers down to local authorities and national agency representatives), with the intention of achieving a shared understanding of the issues, opportunities and intended activities, outputs and objectives of the project. Capacity development will focus on building awareness of the project's objective and rationale, introducing sustainable integrated land use management concepts and approaches and helping stakeholders to apply them within the framework of the project's demonstration activities in order to ground training in reality. Training activities will use a mix of approaches based on existing experience UNDP has in Uzbekistan, ranging from relatively formal training sessions, to practical workshops and field visits.

Output 2.2.3: Long-term vocational and academic training curricula and programmes at professional colleges, lyceums, and universities to enhance national capacity to sustain the application of sound land use management.

96. Support to the longer term development of in-country capacity to plan and effectively apply integrated land use management will be focused at two levels:

97. (a) The building over time of a cadre of central and regional government personnel who have a good conceptual understanding of basic sustainable land use management issues and can apply them in national and regional development. The development of such a cadre to gradually replace those currently in place whose education and understanding is based on the legacy of Soviet era approaches is essential. The project will support the introduction of suitable materials into the curriculums of key educational institutions responsible for producing the majority of such personnel. The project will additionally undertake training of teachers and lecturers of such establishments regarding new concepts and approaches in order to maximize the effective impact of these additions to curriculums.

98. (b) At the district level, the project will support the considerable on-going investments by the government in district vocational and agricultural colleges through "training of teachers" (ToT), curriculum development which directly links local livelihood priorities and effective land use, and links to

field activities being undertaken by the project (land use best practices and ILUM planning). Furthermore, the project will work with local schools to ensure that basic concepts of key land use management activities relevant to the daily lives of students (such as carrying capacity and grazing rotation, concept of sustainability, ecosystem services, etc.) are included into existing teaching materials. In these two ways the project aims to raise over time the baseline knowledge of the rural population on such issues to a level where it will positively impact land use decision making at the ground level. (Annex 4 has further details on the vision for strengthening capacities over the long-term through curriculum development at professional colleges, lyceums and universities.)

Outcome 2.3: Improved access of policy makers to tested INRM best practices and methodologies for improved land management

99. The project will undertake a compilation, processing, and dissemination of the knowledge gained about integrated natural resources use planning with the aim to systematically bring together the results of the project, and from that develop materials and tools which will provide a solid basis for national replication. Specific outputs include:

Output 2.3.1: Guidelines on good practices for sustainable natural resource management.

100. Guidelines on good practices for sustainable natural resources management will be developed based on the practical experience gained during the implementation within the two target districts and original experience of those who initially piloted them. These guidelines will be designed for the practical use and application of normal farmers and land users, as well as by district authorities and representatives of relevant national institutions at field level, and vocational training colleges. Therefore, great emphasis will be placed on ensuring that these guidelines are readily accessible to the intended audience and will utilize as much as possible simple non-technical language, easily understandable diagrams and pictograms, feasible actions and readily available materials, step-by- step instructions, and "trouble-shooting" guidance. Additionally, efforts will be made to ensure that they are easily re-producible (i.e. do not contain means of presentation, such as colour coding, etc. that will be lost from black and white printing or photocopying). This will greatly increase their potential further dissemination post project. Annex 5 provides a draft outline for the guidance document on good practices.

Output 2.3.2: The methodology for carrying out Integrated Land Use Planning (ILUP) documented, published and disseminated to facilitate replication.

101. The project will undertake an in-depth evaluation of the effectiveness of the methodology used to develop the two target district ILUPs and specifically identify major difficulties, adaption's required and practical lessons learned that will be of value when trying to replicate the process. Based on this evaluation, a pragmatic guide for the replication of such planning at district level will be developed (see Annex 6 for a draft outline). Efforts will be made to ensure that it is designed in a way that is easily utilizable by target users, i.e. other district authorities and stakeholders. In order to validate this, the relevant district personnel of the two target districts will be asked to evaluate the final guidelines and help identify areas in which it can be improved in terms of practicality and accessibility for other district users. Based on their feedback a final version will be developed and published.

Output 2.3.3: Mechanisms for practical dissemination and application of land use best practices and the ILUP methodology, utilizing the experience and methods developed under CACILM.

102. The project will utilize both direct and indirect mechanisms to achieve maximum and targeted dissemination of relevant materials and guides produced by the project to key land use stakeholders and decision makers. Direct mechanisms will include:

103. Direct delivery of relevant guidelines and materials to identified target users: The project will organize the delivery of materials to target stakeholders, for example, copies of sustainable land use best

practices and ILUP guides will be delivered directly to district authorities, district vocational colleges, etc. on the basis of a pre-defined list. Likewise, policy documents, new legislation (with explanations of their implications and practical application) will be delivered to national, regional and district state institutions and farmer associations / support groups and education facilities.

104. Workshops and dissemination events: The project will follow up the direct delivery of materials generated by the project with strategically planned workshops and other events in order to highlight their existence and clearly demonstrate their practical "real life" application. This includes sub-provincial workshops (i.e. workshops for a number of similar pre-defined groups of districts), provincial workshops, and a limited number of national workshops and profile raising events to highlight the issues and follow through on building awareness of the materials previously delivered. At a national level, an "open day" exhibition will be organized to present the achievements of the project, with specific focus on the most successful best practices and ILUP which will be presented by representatives of the target district authorities and participating land users. Depending on the success of this event, similar provincial events may be organized.

105. Cross fertilization visits / study tours: Study tours / cross fertilization visits of stakeholders from other selected districts within the projects target landscapes will be organized in order for them to see in practice the way and results of applying land use best practices and ILUM planning, and to talk to those who were practically involved in the process of applying them. Additionally, key provincial and national stakeholders and decision makers will be invited to undertake such visits in order to build a practical awareness of the issues faced on the ground and the means that the project tested for addressing them.

Indirect mechanisms will include:

106. Multiplier / dissemination agents (extension/education institutions): The project will make use of the strengthened technical and vocational training colleges and institutes (see project capacity building efforts under Output 2.2.3) to act as multipliers and dissemination agents for the projects materials. The project will support such agents to integrate materials provided by the project results into their training curriculums and in this way ensure practical use and long term application.

107. Media and Web based dissemination: The project will utilize the media, particularly local newspaper, radio and TV, to build awareness of the main issue and solutions to priority land use in the target landscapes. UNDP's previous experience in effectively undertaking such activities will be put into practice including use of short films and radio programmes that focus on the very practical field level aspects and utilize actual land users and authorities that were involved in the project. Emphasis will be place on the real life interests and concerns of rural populations and land use managers and the thus the need to prompt a "farmer-to-farmer" type of approach rather than "technical/academic to farmer" one. Additionally the project will utilized web based platforms but materials and the target audience will be different. Web-based materials will focus on providing useful source materials for national and provincial state personnel, NGO's and development actors.

108. National Development Agency networks and regional initiatives: The project will further aim to take advantage of existing networks within UNDP and partner development agencies and initiatives to achieve dissemination and practical application of project practical guides and materials. The project will work with the UNDP CO to identify existing projects that can make use of or effectively access key land use players and integrate into their activities the project materials. This would include, for example, rural development/poverty reduction orientated and governance related projects. A similar approach will be utilized with other UN agencies and relevant partner agencies such as GIZ, ICARDA, FAO, UNEP, etc. Finally, as a project under the umbrella of the GEF financed CACILM initiative, the project will take full advantage of the opportunities it provides to disseminate and share experience within the region and with relevant stakeholders.

Incremental Cost Justification and Global Benefits

109. In the alternative scenario enabled by the GEF the previously described barriers to sustainable and integrated pasture and forest management in the desert, semi-desert and mountain landscapes of Uzbekistan will be addressed. The GEF will invest in on-the-ground activities at selected districts to change the baseline course of actions, and support the institutional, policy and methodological mechanisms needed to sustain the new approach after the project end. The overall development goal towards which the project will contribute is a reduction in competing land use pressures on natural resources of arid landscapes in Uzbekistan. The more specific project objective is to improve the sustainability of the two major forms of land use in these areas – rangeland and forestry – and to better integrate their development. Such integration is imperative for the sustainability of both land uses, and for the long term environmental and socio-economic stability of communities inhabiting these landscapes.

Table 11. Comparison of the baseline scenario with the GEF alternative scenario

Current Practice	Alternative to be put in place by the project	Selected Benefits
Overgrazing – exceeding carrying capacity by 5 times resulting in increased erosion. – erosion resulting in formation of moving sands and dust storms in desert and semi-deserts, topsoil loss and mudslides in mountains causing large damages	Improved pasture management: Rotational grazing to maintain pasture quality practiced by both shirkats and dekhans/ households; Decrease grazing rate of moderately degraded pastures ; Increased fodder availability allows reduced use of autumn and winter pastures Increased investments in repair and maintenance of key pasture use infrastructure (wells) allows greater flock mobility Positive economic incentives for sound pasture management by shirkats. Improved land tenure arrangements for both shirkat and dekhans / households encourages long term sustainable pasture management Restoration: Set asides and sowing with more productive species	Pasture restoration and sustained use: Improved vegetation cover and productivity of rangelands. Baseline- *Karakul:* out of total of 338,101 rangeland 55% (185,000) is degraded with yield at or below 0.17 t /ha of dry matter. *Zaamin*: out of 127,000 ha rangelands 75% is degraded (95,000 ha) with yields at or below 0.3 t/ha of dry matter. Reduced Carbon emissions from above and below ground. Baseline - *Karakul:* the nearest studies conducted to Karakul are from Karrykul (Turkmenistan) with similar vegetation cover. Total CO_2 sink capacity reported is close to 151±121 g CO_2 m^{-2}/season during the growing season. *Zaamin*: study conducted for the ecosystem nearest to Zaamin is from Karnap (Uzbekistan) with vegetation cover slightly different. Maximum and mean daily sinks reported are 11.7 and 6.5 g CO_2 $m^{-2}d^{-1}$, respectively. Total CO_2 sink capacity of the rangeland vegetation is estimated 347±178 g CO_2 m^{-2} during 111 days of growing season in a year (data from actual project sites to be determined during project inception phase) Prevention of increase in moving sand and / or other erosion impacts: Baseline: Area of moving sands in Karakul district: Tbd in inception phase. Zamin: there are 10-12 ha of area under gully erosion, annually in April-May there are 2-3 mudflow events resulting in 1-2 ha of new gullies, also flood events result in top soil removal on area of up to 100 ha of rain fed wheat areas. Sheet erosion reaches 75% of the rain fed areas (levels - 22% low, 36% moderate, 17% strong).
Felling for fuel wood; overgrazing in forest territories; limited and inefficient investments in forestry	Sustainable forest management practices: Improved restoration and erosion control techniques widely applied Increased investment through widespread cooperative (joint) management best practices with local communities and private sector Better regulated and managed grazing in forest territories Wood collecting pressures reduced	Forest territories restored and sustainably used: Improvement in forest cover by 5-10%: (Baseline for Karakul: 62,000 ha of forest administration "fund" land is without forest cover; Baseline for Zaamin: 20,000 ha of forest fund land not covered with trees) Avoided emissions from forest degradation and carbon sequestration through forest restoration (estimates for Karakul: about 31,500 t/year is used as fuel wood which approximates to the release of 15,750 t/C/year; estimates for Zaamin: approximately 19,800 t/year is used as fuel wood

Current Practice	Alternative to be put in place by the project	Selected Benefits
		("changol") which approximates to the release of 9,900 t/C/year)
Little systematic integration of land use planning at district level leads to pressures from competing resource use and missed opportunity for synergies.	Improved integration of District level land use planning. District authorities undertake systematic and integrated long term resource use planning Land use best practices are applied across sectors Synergies and integrated management approaches are applied across different land use sectors	Competitive pressures between land uses in desert, semi-deserts and mountain landscapes reduced: • Decrease in grazing pressure in forestry territories • Improved forest restoration in non-forest territories • Reduced fuel wood collecting pressure in forest and pasture • Increased economic productivity of natural resource users

110. The primary global benefits will be generated in terms of reduction and reversal in land degradation of arid areas in Uzbekistan (particularly pasture land and forestry), thereby increasing soil carbon stocks and soil organic matter; carbon sequestration; decreasing soil erosion, landslides incidence and soil loss; reduction of sediment loads to rivers and streams, as well as siltation and damage to downstream water reservoirs. Secondary global benefits will be generated for biodiversity conservation through improved conservation prospects of globally important species and habitats harboured in arid mountain, desert and semi-desert areas affected by land degradation.

Cost-effectiveness

111. GEF funding in the proposed sustainable land management project for Uzbekistan is designed to be catalytic for achieving more sustainable and better integrated land management. The UNDP/ GEF proposal will build upon both existing government efforts to improve the effectiveness and integration of land use, and past international development efforts to pilot more sustainable practices. This approach will maximize the cost-effectiveness of the overall project.

112. The project's focus on up-scaling of existing best practices will streamline the process of demonstrating such practices at a wider scale as it will be building upon existing practical experience of their application in the field. Furthermore, as in most cases the adoption of the selected best practices will meet the immediate interests of land users, the project will apply a cost sharing requirement whenever this is feasible. Project inputs towards the replication of such practice will be limited to technical advice through development of appropriate technical extension mechanism. As a result, the project will encourage private (land user) investments in sustainable land use and only need to cover a limited proportion of direct investments required to demonstrate and propagate the selected best practices. This will lead to better allocation of GEF and non-GEF resources and more focused interventions and investments. Regular communication and coordination with the other donor agencies working on similar interventions will be established via a project Technical Coordination group (see Project Management Arrangements) and will ensure that there are no overlaps of activities and full advantage of beneficial synergies are taken.

113. The project approach, with its emphasis on utilizing practical on-ground experience in order to "feed" into national policy planning, and legislative/ institutional reform efforts will help ensure a more efficient and cost effective process for such efforts. An alternative approach could have been to first address the policy and legal/institutional framework and then pilot its implementation in the field. This is considered to be highly inappropriate, on the basis that the policy, legal and institutional changes would not be "grounded" in the pragmatic realities of land use in the field. Furthermore, without a practical demonstration of what is possible in practice, there is a high risk of opposition and inertia at a national level to introducing new practices due to lack of faith in their viability.

Stakeholder analysis

114. Stakeholders in the project include relevant institutions and individuals at all levels from national ministries, regional and district governments, down to pastoralist farmers and rural communities. Key stakeholders and their roles differ in accordance with the different components of the project as they focus on addressing different barriers and issues within the planning and landscape management hierarchy. Component 1 of the project ("the wider adoption of relevant best practices on integrated rangeland and forestry sectors and preparation of district level integrated land use planning within a representative sample of arid mountain, semi-desert and desert landscapes in Uzbekistan") mainly involves district stakeholders directly involved in land use i.e. forestry enterprises, shirkats, private farmers, local self-governing structures, and, most important of all, local communities and individual households/ dekhan farms. Local representatives of key national institutions such as the Ministry of Agriculture, State Committee on Land Resources, Geodesy, Cartography and State Cadastre, State Committee for Nature Protection and the District Authorities will also be important players. It is critical that national institutions are fully supportive, if district level planning is to work and best practices are to become common practice.

115. Component 2 of the project ("enabling cross-sector environment and knowledge management for integrated landscape management in arid mountain, semi-desert and desert areas of Uzbekistan") involves mainly stakeholders at the higher national level, including MAWM (specifically departments dealing with livestock, pasture and forestry), the State Committee on Land Resources, Geodesy, Cartography and State Cadastre, and the Uzbek Karakul Sheep Company. Key stakeholders involved in the development of national policy such as the Ministry of Economics, Ministry of Finance and relevant departments of Cabinet of Ministers will also be important. Additionally, the inputs and feedback of practical management realities experienced by stakeholders in the field, such as the oblast and district authorities and the land users themselves (shirkats, forestry enterprises, farmers, communities, households) need to feed into the development of the national legal, policy and institutional environment. The table below summarizes the role of different stakeholders in the project. A Stakeholder Involvement Plan is outlined in Annex 7.

Table 12. Stakeholders and their role in the project

Stakeholder	Stakeholder's interest and influence	Role/ responsibility in the project
National		
State Committee on Land Resources, Geodesy, Cartography and State Cadastre (Goskomzem, GKZ)	Interest: Primary, Lead Implementing Agency Influence: Responsible for regulatory framework related to land use, land tenure and technical aspects of land use planning.	Project coordination from the side of the government as well as carrying out the following functions of direct relevance and importance for this project: systematic research on the demand for quality and variety of land cadastre information, publish it and make it available to stakeholders; the operation of an automated land information system; the maintenance of the state land cadastre in districts; the provision of aerial photos, land use plans and cartographic products; and topography data required for keeping land cadastre. GKZ will participate in the project in its capacity of land use planner and repository for land use information.
Ministry of Agriculture and Water Resources of the Republic of Uzbekistan (MAWR)	Interest: Primary, direct interest Influence: Responsible for policy development, planning, coordination and implementation of all activity related to productive land use, agricultural productivity and protection of natural resources.	Will participate in the project mainly through its Main Forestry Department and Main Livestock Department.
Main Administration for	Interest: Primary, key participant	The Forestry Department brings a broad land

Stakeholder	Stakeholder's interest and influence	Role/ responsibility in the project
Forestry of the MAWR	Influence: Responsible for overall development and planning, policy, and management of forest lands, open pastures and other lands under its jurisdiction, including protected areas and hunting reserves.	use/water use perspective to the project with experience in afforestation, stock management, irrigation, and other technologies for land and water management. In both Zaamin and Karakul districts, branches of the Forestry Department will work closely with the project providing the experience it has gained over the years of planting saxaul as a means of consolidating mobile sand. In both Bukhara and Djizak Oblasts, the Forestry Department will provide its tree nursery facilities and other support as required by the project.
Main Livestock, Poultry, Apiculture and Aquaculture Department of the MAWR	Interest: Primary, key participant Influence: Responsible for overall development and planning, policy, and management of pasture lands, livestock sector development.	The Main Livestock Department brings a broad pasture use/water use perspective to the project with experience in pasture enrichment, stock management, pasture watering, and other technologies for livestock management. In both Zaamin and Karakul districts, enterprises of the Main Livestock Department will work closely with the project providing the experience it has gained over the years of pasture rotation and animal breeding practices. In both Bukhara and Djizak Oblasts, the Main Livestock Department will provide support through the National Company "Uzbekkarakul" and other support as required by the project
Uzbek Karakul Sheep company (Uzbekkarakul)	Interest: Primary, key participant Influence: authorized national company to oversee development of karakul livestock farming in Uzbekistan, increase livestock population, improvement of its productivity.	The project will work closely with territorial enterprises of Uzbekkarakul and perform sector-specific, mid-level vertical management in all processes related to the utilization and improvement of pastures.
Uzbek Agricultural Research and Production Center	Interest: Primary, key participant Influence: the Center unites agricultural research institutions, their branches, and experimental stations in all regions of the country. The Center is responsible for agricultural research.	The project will work closely with representatives of major sectoral research institutions such as Grain Research Institute, Livestock Research Institute, Karakul Farming and Desert Ecosystem Research Institute, etc. functioning under the Center, to benefit from their knowledge and approaches, and disseminate project results.
State Committee for Nature Protection (Goskompriroda)	Interest: Direct interest as focal point for CBD; Primary, key participant Influence: Responsible for overall environmental policy and regulatory framework. Advisory role on environment in general and technical matters related to biodiversity conservation.	Providing oversight for the project, particularly on Biodiversity matters. It will play a mainly technical advisory role.
Uzbek Tourism National Company	Interest: Tertiary Influence: Responsible for overall development of tourism in Uzbekistan.	Technical advisory role: Eco-tourism is a possible alternative income generation activity which may be identified during land use inventory of target districts as being a viable option. The Ministry will be consulted if this activity appears to have potential.
Ministry of Economy	Interest: Secondary Influence: Responsible for overall national development and macro-level strategic planning, policy, integration of sectorial development inputs from other government agencies.	Technical advisory role: Engaged in project implementation through membership in PEB.
Ministry of Higher Education	Interest: Primary, key participant Influence: Responsible for education policy	Technical advisory role: The project will seek the advice of the Ministry in its development of

Stakeholder	Stakeholder's interest and influence	Role/ responsibility in the project
	formulation and delivery of education services, including to remote local communities.	special teaching and learning material for colleges and universities.
Uzbekistan Hydro meteorological Administration (Uzgidromet)	Interest: Primary, direct interest as focal point for UNCCD and UNFCCC, key participant Influence: Uzgidromet is the Government agency in charge of providing the Government and other agencies with information on actual and expected hydro meteorological conditions and climate change, the level of environmental pollution, and the centralized compilation of associated information.	Technical advisory role: Uzgidromet will participate in the project through its Hydro meteorological Institute (NIGMI), which is responsible for the implementation of the UN Convention on Climate Change and the UN Convention to Combat Desertification.
The Farmers' Council of Uzbekistan	Interest: Primary, key participant. Influence: association of farmers, protecting and representing their interests in the government and other organizations.	Technical advisory role: The project will seek their advice on interests of farmers, systematic review of effectiveness of the land use in the farms, support in the supply of seeds, fertilizers, seedlings, pedigree livestock, and other resources as well as support for production, technological, transportation, legal, information, marketing, and other services.
The State Committee on Geology and Mineral Resources	Interest: Secondary Influence: authorized government agency for utilization and protection of underground waters. Uzbekhydrogeology is the stakeholder body in implementation of UN CBD and FCCC.	Technical advisory role: The project will seek their advice on forecasting location and depth of ground waters used for irrigation of lands and watering livestock on pasture lands.
Regional		
Regional governments of Bukhara and Djizzak oblasts.	Interest: Secondary, important participant. Influence: Responsible for meeting the direct needs of communities, and providing the regulatory guidance on resource management, etc. Aim to maximize social and economic benefit of communities through the optimum use of natural resources.	There will be an opportunity for the Oblast Offices to become connected with the project's electronic network thus accessing a vast amount of information
District authorities of Zaamin and Karakul districts.	Interest: Primary, important participant. Influence: Responsible for meeting the direct needs of communities, and providing the regulatory guidance on resource management, etc. Aim to maximize social and economic benefit of communities through the optimum use of natural resources within the district.	Coordination, implementation and support to all district level activities being supported by the project. Specifically, support via provision of office space and relevant land use staff; identification and selection of locations and participants for best practice implementation; development of ILUMP and implementation (with project technical support); comments and input to national policy, legislation and institutional changes.
Research Institute for Karakul Sheep Breeding and Desert Ecology	Interest: Primary, important participant. Influence: Responsible for development of scientific approaches and practical implementation of innovative technologies in the field of pasture management and livestock breeding in the desert regions.	There will be an opportunity to use scientific and practical experience of institute staff in the project implementation activities related to improvement of the pasture management and livestock keeping in pilot areas of the project.
Universities related to the project thematic focus (Tashkent State Agricultural University, Samarkand State University, Samarkand Agricultural Institute.	Interest: Secondary, key participant. Influence: Responsible for development of methodology of study processes in the field of agriculture, biology, forestry and livestock.	The project will work with the universities to develop and improve the study materials for students and teachers in order to enhance study process for agricultural and environmental sciences. The goal is to further develop capacity of specialists and decision makers in the field of land use management.

Stakeholder	Stakeholder's interest and influence	Role/ responsibility in the project
Local		
Community Administrations (Rural Citizens Council)	Interest: Primary, important participant and key beneficiaries. Influence: Responsible for meeting the direct needs of communities, and providing the regulatory guidance on resource management, etc. Aim to maximize social and economic benefit of communities through the optimum use of natural resources within community.	Officials have a personal interest since they form part of the community. The communities are the prime beneficiaries of the project. The trials of innovative sustainable land management techniques will take place in the communities and they will inherit the outcomes and other products of the project. The communities have been involved in project development and they will continue to be involved in project implementation. The design of the project and the electronic connectivity that it will provide, will make them true partners in project implementation in many aspects of the project
Local enterprises of sheep breeding (karakul shirkats) and forestry.	Interest: Primary, important participant and key beneficiaries. Influence: maximizing social and economic benefit of business activity through the optimum use of natural resources within community.	Implementation of the project approaches directly on territories of these enterprises. Joint analysis and evaluation of the project's practical results. Carrying out the study and learning seminars demonstrating advances of new agricultural and forestry technique.
Local professional colleges related to the project theme	Interest: Primary, key participant. Influence: Responsible for development of methodology of study processes in the field of agriculture, biology, forestry and livestock.	The project will develop and improve the study materials for students and teachers at these colleges in order to enhance study process for agricultural and environmental directions. The goal is to further develop capacity of specialists in the field of land use management.
International		
International Centre for Bio saline Agriculture (ICBA)	Interest: Primary, key participant. Influence: to demonstrate the value of marginal and saline water resources for the production of economically and environmentally useful plants, and to transfer the results of our research to national research services and communities.	Carrying out joint actions on increasing fertility of the land and enriching pastures in the project areas. Joint publications and implementation of joint training seminars.
ICARDA	Interest: Primary, key participant. Influence: the founding mandate is to promote agricultural development in the dry areas of developing countries. In cooperation with the Ministry of Agriculture and Water Resources and the Research Production Centre of Agriculture, it is implementing a number of projects on the improvement of farming systems in rain-fed lands by testing new varieties of leguminous and grain crops.	In the framework of the project, providing test and dissemination of new varieties of leguminous crops in rain-fed lands. Joint publications and implementation of joint training seminars.
GIZ	Interest: Primary, important participant. Influence: wide range of instruments and networks that flexibly and innovatively create values and empower people to shape their own development processes. Promote a market-oriented, ecological and social economic order and observe the principles of corporate responsibility. Ministry of Agriculture and Water Resources of Uzbekistan and GIZ are implementing a project "Sustainable management of pasture with participation of local community".	Experience and information exchange in the field of pasture rehabilitation and use, income diversification of the population in the arid regions of Uzbekistan.
MASHAW – Israel Centre for International Cooperation	Interest: Secondary, key participant. Influence: agricultural programs deal with the introduction of modern technologies	Training and intensive courses in different areas of the project. A study tour to raise awareness on the issues of agriculture in rain-fed and arid

Stakeholder	Stakeholder's interest and influence	Role/ responsibility in the project
	and agro-technical methods designed to increase the levels, sustainability and quality of agricultural production to ensure food security. It also concentrates on introducing effective support systems to enhance the economic viability of agriculture in areas such as marketing, storage and transport, the supply of agricultural inputs, granting of credit and finance to the agricultural sector and upgrading the work of extension services. In Uzbekistan, MASHAV supported the project on Sustainable Livestock Development. A range of projects on the seed zoning of food and fodder plant species.	lands in Israel. Joint publications.
OSCE – Organization for Security and Co-operation in Europe	Interest: Secondary, key participant. Influence: In cooperation with the Ministry of Agriculture and Water Resources and the Council of Farmers, it implements a number of projects on improvement of legislative documents in the field of agriculture and water resources.	Improvement of the normative-legal documents in the field of land use relating to the project theme. Joint publications and implementation of joint training seminars.
CACILM	Interest: Primary, key participant. Influence: CACILM's goal is to restore, maintain, and enhance the productive functions of land in Central Asia, leading to improved economic and social well-being of those who depend on these resources while preserving the ecological functions of the land. CACILM implements a comprehensive and integrated approach to sustainable land management that would produce benefits at the local, national, and global levels. The SLM projects in Uzbekistan are under the umbrella of CACILM.	Joint training efforts in the field of sustainable land use, and participation in regional programs for improvement of land use in Central Asia.

Country Ownership: Country Eligibility and Country Driven-ness

116. In 1995 the Oliy Majlis (Parliament) of the Republic of Uzbekistan ratified the United Nations Convention to Combat Desertification. As a party to the CCD, Uzbekistan is committed to implement the 10-year strategic plan and framework to enhance the implementation of the Convention (2008–2018) which was adopted at COP8, Decision 3 (Madrid in September 2007). The project will specifically contribute to addressing the following operational objectives and expected outputs of the Strategy:

Objective 1- Advocacy, awareness raising and education:

- Outcome 1.1 Desertification/ land degradation and drought issues and the synergies with climate change adaptation/mitigation and biodiversity conservation are effectively communicated among key constituencies at the international, national and local levels.

Objective 2: Policy framework

- Outcomes 2.1: Policy, institutional, financial and socio-economic drivers of desertification/land degradation and barriers to sustainable land management are assessed, and appropriate measures to remove these barriers are recommended,

- Outcome 2.2: Policy, institutional, financial and socio-economic drivers of desertification/land degradation and barriers to sustainable land management are assessed, and appropriate measures to remove these barriers are recommended.
- Outcome 2.3; Developed country Parties mainstream UNCCD objectives and sustainable land management interventions into their development cooperation programmes/projects in line with their support to national sectoral and investment plans.

Objective 3: Capacity Building

- Outcomes 3.1: Countries which have carried out the national capacity self-assessment (NCSA) implement the resulting action plans to develop the necessary capacity at the individual, institutional and systemic levels to tackle desertification/land degradation and drought issues at the national and local levels.

Project consistency with national priorities and plans

117. The project responds to the priority actions identified in the National Action Program to Combat Desertification (NAPCD, 2002). The NAPCD lists a number of key priorities, and the project will directly contribute to realizing some of these priorities. In particular, the project will address the following NAPCD general recommendations:

- Improving land organization in order to prevent its degradation and secure environmentally and economically productive patterns based on landscape and environmental norms
- Improving degraded rangelands and hayfields
- Restoring forests and growing them on lands of the state reserve and other territories suitable for it
- Fixing sands to protect rangelands, populated areas and economic facilities
- Developing economic mechanisms for ensuring more sustainable use of natural resources
- Establishing a legislative framework for securing the introduction of standards and norms of land use

118. The project objective is also a key priority identified by the National Biodiversity Strategy and Action Plan (BSAP, 1998) which emphasizes the protection of all biological resources including forests and pastures, as well as the restoration of structures and functions of degraded ecosystems. The project is also directly in-line with the proposed actions contained in the later unapproved BSAP revision. The project will also directly contribute to a number of other endorsed policy documents. The Government, in coordination with international organizations, is promoting a deeper understanding of the problems of livings standards, and, in 2003, there were two initiatives on this topic namely, the World Bank's "Living Standard Assessment" and a UN research study on the "Connection between microeconomic policy and decreasing the levels of poverty in Uzbekistan". In 2003-2004, the Asian Development Bank provided technical support to develop "Strategies for improving living standards among the population of Uzbekistan" (also known as Living Standard Strategies, or LSS). On the basis of these documents the full Welfare Improvement Strategy (WIS) was developed. Within the WIS there is much emphasis on the need to transform the agricultural sector and achieve better livelihoods through improved and sustainable natural resource use. With the support of FAO, Uzbekistan has also prepared an initial National Forestry Plan (2010) which includes emphasis on the need to re-orientate and better integrate the forestry sector into rural community livelihoods.

Sustainability and Replicability

119. **Institutional and financial sustainability:** The project will instigate institutional change with the true understanding and support of the institutions themselves for the change to be effective and sustainable. The major aim of the project is to build the experience, know-how and technical capacity of key national, regional and district level institutions so that they themselves are better able to understand and deliver change that responds to the evolving land use situation in Uzbekistan. This is the most significant factor in making such institutions sustainable and continuing to be sustainable despite inevitable climate and economic "shocks" that may occur in the future.

120. As was highlighted previously, the current approaches to land use management in the non-irrigated landscapes are, at this time, largely unprofitable and are significantly subsidized by the state in various indirect ways. The project seeks to bring about adjustments and reforms to the current land use system and introduction of land use management practices that increase sustainability but also improve mid to long term productivity and profitability. Intrinsically, this will build the improved financial sustainability of land use systems. A reduction in the direct management role of the state and an increased role of the private sector will help drive forward on-ground adoption of better practices and investments in land use. As a result the financial viability and sustainability of land use in non-irrigated landscapes will be improved.

121. **Replication**: The Project Manager will ensure the collation of all the project experiences and information. This knowledge database will then be made accessible to different stakeholder groups in order to support better decision-making processes in the project target landscapes. The project will identify important best practices and lessons learned which can be of value to all key stakeholders, specifically national decision makers in GKZ, MAWM (Livestock department and Main administration for Forestry), Ministry of Economy, Education and Finance, relevant oblast and district authorities, important development actors in the country. These best practices and lessons learned will be documented, and guidelines for facilitating their wider replication and "up-scaling" will be prepared. Subsequently, the project will make systematic efforts for their dissemination including publishing in written and digital format, dissemination workshops and cross-fertilization study tours and film. Adequate budget for this purpose has been included.

3. PROJECT RESULTS FRAMEWORK

This project will contribute to achieving the following Country Programme Outcome as defined in the CPAP: Outcome 2.1: Increased availability of institutional products and services for the conservation and sustainable and equitable use of natural resources
Country Programme Outcome Indicators: Number of such products and services available
Primary applicable Key Environment and Sustainable Development Key Result Area: Mainstreaming Environment and Energy
Applicable GEF Strategic Objective and Program:LD-3: Integrated Landscapes: Reduce pressures on natural resources from competing land uses in the wider landscape
Applicable GEF Expected Outcomes: Outcome 3.1: Enhanced cross-sector enabling environment for integrated landscape management; **Outcome 3.2:** Good management practices in the wider landscape demonstrated and adopted by local communities
Applicable GEF Outcome Indicators: Indicator 3.1 Policies support integration of agriculture, rangeland, forest, and other land uses; **Indicator 3.2** Application of integrated natural resource management (INRM) practices in wider landscapes

Project Strategy	Objectively Verifiable Indicators	Baseline	Target	Sources of verification	Risks
Objective[4]: To promote integrated management of rangeland and forests at the landscape level (focus on non-irrigated, arid mountain, semi-desert, and desert landscapes) to reduce pressures on natural resources from competing land uses and improve the socio-economic stability of communities.	Number of hectares of pastures, forest and rain-fed arable land in two target districts that are under improved management.	Zero	11,000 ha of forest; 26,000 ha of pasture; and 2,000 ha of rain-fed lands (Long-term targets: Over 10 years, at 2% replication rate, 0.6 million ha of forest cover land, 4 million ha of pastures, and 150,000 ha of rain-fed area under improved management.)	Project AWP/PIR, Independent Evaluation, periodic field surveys/field visits	Weak political or institutional will to make necessary changes and support reform will prevent the application of good land use practices on the ground Engaging local stakeholders contains some risk in the context of existing mainly centralized approaches Building of sufficient capacity and practical know-how within essential state institutions and local authorities will take too long to allow project sustainability
Outcome 1[5]. Promising best practices on sustainable rangeland and forestry management and INRM planning up-scaled in target districts of Uzbekistan.	Improvement or maintenance of vegetative cover in pilot sites in target districts	Forest administration land: 142,000 ha is with forest cover; Pastureland: 175,000 ha with good vegetation cover; Rain-fed areas: 25,000 ha can sustain good vegetation cover	Maintenance in vegetative cover or improvement in cover over baseline by: 8% for pastureland; 6% for forestry; and 6% for rain-fed areas	District ILUMPs, pasture use plans, reports of pasture user groups, project monitoring reports	Extreme seasonal variations/drought will negatively impact land conditions in project sites New threats could emerge (such as insect infestations, disease caused by climate change, reduced water availability, etc.), or

[4] Objective (Atlas output) monitored quarterly ERBM and annually in APR/PIR
[5] All outcomes monitored annually in the APR/PIR. It is highly recommended not to have more than 4 outcomes.

Project Strategy	Objectively Verifiable Indicators	Baseline	Target	Sources of verification	Risks
	Area of pasture classified as "degraded" in project sites	280,000 ha (95,000 ha Zaamin, 185,000 ha Karakul)	254,000 ha or less by year 5 (84,000 or less in Zaamin; 170,000 or less in Karakul)	Reports from State Cadastre, project reports	existing threats could increase beyond the projected levels (such as rate of population increase).
	Area of pasture used by dekhans (households) under collaborative management (pasture user groups)	Zero	300 ha by year 5	Reports from District Authorities, project reports	
	Number of dekhans with formal legal rights (and obligations) for areas used as pasture	Zero	Not less than 600 by year 5 (100 in Karakul, 500 in Zaamin)	Reports from District Authorities, project reports	
	Area of forest planted or managed through state and community collaborative mechanisms (JFM, community forests, collaborative moving sand fixation)	Zero	Not less than 100 ha by year 5 (60 Zaamin, 40 Karakul)	Annual reports of Main Forestry Department under MAWR, project reports	
	Humus content of rain-fed arable land in plough layer	Average 16.7 t/ha	Improvement in humus content of 100 ha rain-fed arable in Zaamin district (>16.7 t/ha) by year 5	Field measurements by State Cadastre and project	
	Local small businesses involved in production or application of appropriate technologies	None	> 5 businesses involved in production/services related to appropriate technology for reducing fuel wood demand, cost effective well pumping or renewable energy production by year 5	Reports of District Authorities and project	
	Number of livestock wells rehabilitated and adequately maintained in project sites	Not more than 10	> than 100 by year 5	Reports of shirkats and District Authorities, project field survey	
Component 2. An enabling cross-sector environment and in-country capacity (at system, institutional and individual levels) for	National pasture use strategic policy/plan incorporating long term integrated sustainable pasture use objectives	No mid/long term strategic development policy for pasture use in Uzbekistan	A mid/long term strategic policy for sustainable pasture use which provides a basis for legal and institutional reform	Approval by MAWM	Consensus on long term strategic objectives for pasture, forestry and rain-fed arable agriculture cannot be reached within the project time frame.

Project Strategy	Objectively Verifiable Indicators	Baseline	Target	Sources of verification	Risks
applying integrated landscape management in arid mountain, semi-desert and desert areas of Uzbekistan	An up-to-date national forestry programme / plan supported by government that incorporates long term integrated sustainable use objectives	National forestry programme prepared but lacks key components and full government commitment for implementation.	An updated national forestry programme/plan approved by government and has an allocated budget by year 5	Approved by Main Administration of Forestry	Legal and institutional changes required to realize the project objective will not be agreed to or carried through during or after the project
	A strategic policy/plan on rain-fed agriculture that incorporates long term integrated sustainable use objectives	No such strategic plan	A strategic plan for the long term development of rain-fed arable agriculture and role in overall agricultural system by year 5	Approval by MAWM	
	Inter-ministerial mechanism for ensuring coordination of land use policies operating effectively	Mechanism exists in principle	Inter-ministerial Coordinating Council has a clear mandate and method of operation to ensure coordination of different land use sectors by year 4	Minutes of Coordinating Council, Project PIRs, Terminal report	
	Pasture legislation and tenure arrangements allow more effective pasture use and fully recognize household/dekhan pasture users	No specific pasture use legislation, other legislation such as Land Code inadequate	Either a Pasture Law for Uzbekistan or adequate revisions to Land Code and other relevant legislation and normative documents completed by year 5	Parliamentary records, Cabinet of Ministers decisions, Project reports	Specific contents of legal revisions cannot be agreed by various stakeholders or that process of enacting legal revisions is impeded and does not become law.
	National and regional training institutions producing graduates with sound understanding of integrated land use concepts and approaches	Current national and regional training institutions have outdated courses which poorly address sustainable land use issues, particularly of non-irrigated landscapes	At least 1 training institution at national level and 1 at regional level have strengthened curriculum that addresses sustainable land use planning, including in non-irrigated areas by year 5.	Curriculums, survey of students and graduates, PIR, terminal report.	Graduates, despite better knowledge of good land use principles and practices, will not be able to apply knowledge due to continued existence of inappropriate institutional context or employment opportunities are better in other sectors

Note: A more detailed description and rating of project risks is provided in Annex 8.

4. Total Budget and Work Plan

Award ID:	00075602
Award Title:	Reducing pressures on natural resources from competing land use in non-irrigated arid mountain, semi-desert and desert landscapes of Uzbekistan
Business Unit:	UZB10
Project Title:	Reducing pressures on natural resources from competing land use in non-irrigated arid mountain, semi-desert and desert landscapes of Uzbekistan
Atlas Project ID:	00087414
PIMS number:	4649
Implementing Partner:	State Committee for Land Resources and Geo-Cadastre (GKZ)

GEF Outcome/ Atlas Activity	Responsible Party/Implementing Agent	Fund ID	Donor Name	Atlas Budgetary Account Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Amount Year 5 (USD)	Total (USD)	Note
Outcome 1: Promising best practices on sustainable rangeland and forestry management and INRM planning up-scaled in target districts	GKZ	62000	GEF	71200	Int'l Consultants		64,752	32,376	32,376	43,168	172,672	1
				71300	Local Consultants	45,360	68,040	34,020	34,020	45,360	226,800	2
				71600	Travel	10,000	20,000	25,000	20,000	20,000	95,000	4
				72100	Contractual Services	37,971	102,971	97,971	91,971	83,971	414,855	5
				72200	Equipment and Furniture	35,000	62,000	78,000	53,000	17,000	245,000	6
				72300	Materials and goods	30,000	82,000	58,000	56,000	7,000	233,000	7
				72400	Communications		1,000	1,000	1,000	1,000	4,000	8
				74200	Audio Visual&Print Prod Costs	10,000	30,000	22,000	30,000	32,000	124,000	9
				75700	Training	25,000	46,000	52,000	34,000	20,000	177,000	10
				72500	Supplies	12,400	12,400	12,400	12,400	12,400	62,000	11
				74500	Misc - Expenses	13,800	14,325	18,000	18,000	15,000	79,125	
				GEF Total Outcome 1		*219,531*	*503,488*	*430,767*	*382,767*	*296,899*	*1,833,452*	
			UNDP	71200	Int'l Consultant	18,000					18,000	12
				71300	Local Consultants	10,000					10,000	2
				71400	Contractual Services (Individual)	9,400					9,400	3
				71600	Travel	6,225					6,225	4
				72100	Contractual Services	6,000					6,000	5
				72200	Equipment and Furniture	30,000					30,000	6
				72300	Materials and goods	5,000					5,000	7
				75700	Training	4,000					4,000	10
				72500	Supplies	2,000					2,000	11

GEF Outcome/ Atlas Activity	Responsible Party/Implementing Agent	Fund ID	Donor Name	Atlas Budgetary Account Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Amount Year 5 (USD)	Total (USD)	Note
				73500	Reimbursement costs (ISS /DPC)	3,769					3,769	25
				74500	Misc-Expenses	3,769					3,769	
				UNDP Total Outcome 1		*98,163*	*0*	*0*	*0*	*0*	*98,163*	
				Total Outcome 1		**317,694**	**503,488**	**430,767**	**382,767**	**296,899**	**1,931,615**	
Outcome 2: An enabling cross-sector environment and in-country capacity for applying integrated landscape management in arid mountain, semi-desert and desert areas	GKZ	62000	GEF	71200	Int'l Consultants	8,360	16,188	28,094	8,094	30,792	91,528	13
				71300	Local Consultants	11,340	17,010	18,505	8,505	21,340	76,700	14
				72100	Contractual Services	4,492	26,109	24,493	24,493	24,493	104,080	15
				71600	Travel		1,000	1,000	1,000	1,000	4,000	16
				72500	Supplies		1,000	1,000	1,000	1,000	4,000	17
				74100	Professional Services			5,000			5,000	18
				74200	Audio Visual&Print Prod Costs	2,000	2,000	2,600	3,500	4,240	14,340	19
				75700	Training		6,000	8,000	18,000	25,000	57,000	20
				74500	Misc - Expenses		2,200	2,200	2,000	2,100	8,500	
				GEF Total Outcome 2:		*26,192*	*71,507*	*90,892*	*66,592*	*109,965*	*365,148*	
			UNDP	71300	Local Consultants	4000					4,000	21
				71400	Contractual Services (individuals)	3000					3,000	22
				71600	Travel	2000					2,000	23
				72500	Supplies	3000					3,000	24
				73500	Reimbursement costs	698					698	25
				74500	Misc - Expenses	698					698	
				UNDP Total Outcome 2:		*13,395*	*0*	*0*	*0*	*0*	*13,395*	
				Total Outcome 2		**39,587**	**71,507**	**90,892**	**66,592**	**109,965**	**378,543**	
Management Costs	GKZ	62000	GEF	71400	Contractual Services (individuals)	4,760	26,098	27,714	27,714	27,714	114,000	26
				74500	Misc - Expenses	200	200	200	200	200	1,000	
				Sub total Management Costs GEF		*4,960*	*26,298*	*27,914*	*27,914*	*27,914*	*115,000*	
		04000	UNDP	71400	Contractual Services (individuals)	52,200	15,700	15,700	15,700	15,700	115,000	27
				71600	Travel	2000					2,000	28
				72100	Equipment/Renovation works	15000					15,000	29
				72400	Communications	3,090	2,940	2,940	2,940	2,940	14,850	30

GEF Outcome/ Atlas Activity	Responsible Party/Implementing Agent	Fund ID	Donor Name	Atlas Budgetary Account Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Amount Year 5 (USD)	Total (USD)	Note
				72500	Supplies	2350		350			2,700	31
				74500	Misc - Expenses	3,000	700	700	700	700	5,800	
				73500	Reimbursement costs	5,000	18,500	18,500	15,592	15,500	73,092	32
				Sub total Management Costs UNDP Uzbekistan		*82,640*	*37,840*	*38,190*	*34,932*	*34,840*	*228,442*	
				Total Management costs		**87,600**	**64,138**	**66,104**	**62,846**	**62,754**	**343,442**	
GRAND TOTALS		04000 & 62000	GEF and UNDP	71200	Int'l Consultants	26,360	80,940	60,470	40,470	73,960	282,200	
				71300	Local Consultants	70,700	85,050	52,525	42,525	66,700	317,500	
				71400	Contractual services (individual)	69,360	41,798	43,414	43,414	43,414	241,400	
				71600	Travel	20,225	21,000	26,000	21,000	21,000	109,225	
				72100	Contractual Services	51,463	129,080	122,464	116,464	108,464	527,935	
				72200	Equipment and furniture	80,000	62,000	78,000	53,000	17,000	290,000	
				72300	Materials and goods	35,000	82,000	58,000	56,000	7,000	238,000	
				72400	Communications	3,090	3,940	3,940	3,940	3,940	18,850	
				72500	Supplies	16,750	13,400	13,750	13,400	13,400	70,700	
				73500	Reimbursement costs	9,467	18,500	18,500	15,592	15,500	77,559	
				74100	Professional Services	0	0	5,000	0	0	5,000	
				74200	Audio Visual&Print Prod Costs	12,000	32,000	24,600	33,500	36,240	138,340	
				75700	Training	29,000	52,000	60,000	52,000	45,000	238,000	
				74500	Misc - Services	21,467	17,425	21,100	20,900	18,000	98,892	
				Total Project (GEF and UNDP)		**444,881**	**639,133**	**587,763**	**512,205**	**469,618**	**2,653,600**	

Budget notes:

Note	Explanation
1	Includes all international consultant costs related to Outputs 1.1.1, 1.1.2, 1.1.3, 1.2.1, and 1.2.2 (including majority of CTA costs under Outcome 1, Pasture/ Livestock Management Expert, Forestry Expert, ILUMP Expert) during years 2-4, with the exception of mid-term and terminal evaluation consultant
2	Local consultants providing support to district level project implementation on best practices, extension, and ILUMP (includes Pasture Management Expert, Forestry Expert, Rain Fed Arable/ Conservation Agriculture Expert, Land Use Inventory and Cadaster Expert, GIS and Data Base Expert, Appropriate Technology Expert, Geo Botanic Expert, Soil Survey Expert, Watering Points Expert (ground water utilization, etc.), Social and Economic Expert)under Outputs 1.1.1, 1.1.2, 1.1.3, 1.2.1, and 1.2.2,
3	Technical inputs provided by Project Manager within target districts under Output 1.1.2.
4	Cost of travel within districts and between Tashkent and districts during 5 years for all national and international staff
5	Subcontracts for refurbishment of district field offices (buildings to be provided by local government), FFS locations, zoo-technical points, vocational training facilities under Output 1.1.3; for refurbishment of limited key infrastructure under Output 1.1.2 (wells, agricultural service areas, etc.); for services related to remote sensing / aerial survey and land inventory under Output 1.1.1; for Information Center services in 2 target districts under Output 1.1.3; and for National Technical Coordinator services related to Outputs 1.1.1, 1.1.2, 1.1.3, 1.2.1, and 1.2.2.
6	Equipment and furniture in target districts for field office; vocational training colleges; FFS; zoo-technical centers; equipment required to upscale best practices (zero tillage equipment, renewable energy well pumping systems, fodder processing equipment, etc.) under Outputs 1.1.1, 1.1.2, 1.1.3, 1.2.1, and 1.2.2,
7	Goods and materials required to support introduction and up-take of best practices (Output 1.1.2) including: tree saplings, quality seeds, materials for local application of renewable energy and energy efficiency technologies.
8	Communication costs within districts and between districts and Tashkent under Outputs 1.1.1, 1.1.2, 1.1.3, 1.2.1, and 1.2.2,
9	The production of guidelines and documentation/replication/ awareness materials for best practices and district ILUMP methodology, maps, booklets, flyers, poster, audio products under Outputs 1.2.1 and 1.2.2.
10	Training related to implementation of best practices, extension services and ILUMP development within the two target districts under Outputs 1.2.1 and 1.2.2.
11	Supplies for the two field offices within the target districts
12	CTA costs for initial year (UNDP)
13	Inputs from International Consultants (Pasture/ Livestock Management Expert, Forestry Expert, ILUMP Expert) to Component 2 on policy development, legislation, institutional reform and capacity development (to Outputs 2.1.1, 2.1.2, 2.1.3, 2.2.1, 2.2.2, 2.2.3; and cost of independent international evaluator for mid-term and final evaluations
14	Local consultants (Policy and Strategic Planning Expert, Legal Expert, National/Regional Capacity Development Expert, District Capacity Development Expert, M&E/Knowledge Management Expert) supporting the development of national policy, legislation, institutional adjustment and capacity development (providing services to Outputs 2.1.1, 2.1.2, 2.1.3, 2.2.1, 2.2.2, 2.2.3);; and cost of independent national evaluator for mid-term and final evaluations
15	Subcontract for National Technical Coordinator services to Component 2
16	Travel costs of key national stakeholders to project districts for field observation relevant to policy, legislation and institutional adjustment. (Outputs 2.1.1, 2.1.2, 2.1.3, 2.2.1, 2.2.2, 2.2.3)
17	Supplies for activities related to Component 2
18	Audit of project
19	Costs related to printing and publication of newly developed policy and legislative documents, and curricula developed for HE institutions and vocational colleges (Outputs 2.3.1, 2.3.2, 2.3.3)
20	Costs related to a) initial key national stakeholder capacity development to ensure effective project implementation, b) Training of trainers in HE institutions and vocational colleges.
21	CTA inputs for Outputs 2.1.1, 2.1.2, 2.1.3, 2.2.1, 2.2.2, 2.2.3, 2.3.1, 2.3.2, 2.3.3 (UNDP)
22	GIS software and relevant land use / agricultural management software for key national stakeholder agencies and HE institutions (UNDP)
23	Travel costs of key national stakeholders to project districts for study tour / field observation relevant to policy, legislation and institutional adjustment. (UNDP)

Note	Explanation
24	Supplies for activities related to Component 2 (UNDP)
25	Direct project costs to be covered by UNDP
26	Costs for project core staff related to project management (Project Manager, Administrative and Financial Assistant, Driver)
27	Costs for project core staff related to project management (Project Manager, Administrative and Financial Assistant, Driver) covered by UNDP
28	Travel costs of project team to the pilot regions
29	Renovation and additional equipments for the project office
30	Internet and mobile phone expenses
31	Stationary and office supplies
32	Direct project costs for the total amount GEF, and UNDP management to be covered by UNDP

Summary of Funds[6]:	Year 1	Year 2	Year 3	Year 4	Year 5	TOTAL
GEF	250,683	601,293	549,573	477,273	434,778	2,313,600
UNDP						700,000
State Committee for Land Resources and Geo-Cadastre						7,600,000
Two district authorities (Karakul and Zaamin districts)						300,000
District forestry farms (Karakul, Zamin)						220,000
Farmers Council of Uzbekistan						100,000
Ecological Movement of Uzbekistan						120,000
Center for Support of Entrepreneurship and Farmers						20,000
ICBA						500,000
Karakul breeding shirkat farms (“Karakul”, “Yangichorvador”, “Zaminchorvador karakul”)						320,000
TOTAL						12,193,600

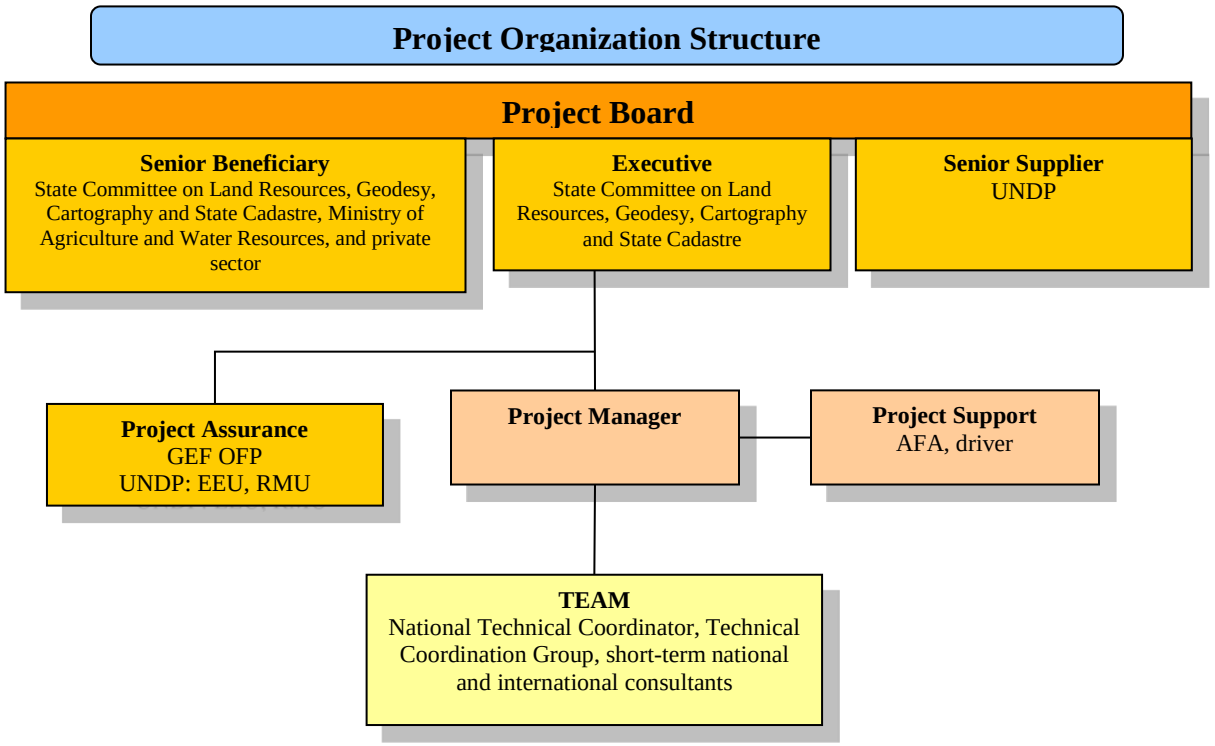
[6] Summary table should include all financing of all kinds: GEF financing, cofinancing, cash, in-kind, etc...

5. MANAGEMENT ARRANGEMENTS

Project Implementation arrangement

122. The project will be implemented through National Implementation Modality (NIM), as described in the UNDP Programme and Operations Policies and Procedures (POPP). At the national level, the project will be executed by the State Committee on Land Resources, Geodesy, Cartography and State Cadastre as the National Implementing Partner.

123. The **Project governance** structure will be aligned with UNDP's new rules for Results Based Management and will be composed of: (i) Project Executive Group – Project Board; (ii) Project Management; (iii) Project Assurance; and (iv) Project Support. The governance structure is described below:



124. Project Executive Group: The Project Executive Board (PEB) will be the executive decision making body for the project, providing guidance based upon project progress assessments and related recommendations from the Project Manager (PM). The PEB will be lead by the National Project Director (NPD) nominated from the government who will be responsible for the overall implementation of the project. The PEB will review and approve annual project reviews and work plans, technical documents, budgets and financial reports. The PEB will provide general strategic and implementation guidance to the PM. It will meet quarterly, and make decisions by consensus. The specific rules and procedures of the PEB will be decided at the project inception meeting. The PEB is responsible for making management decisions for the project in particular when guidance is required by the Project Manager. The PEB plays a critical role in project monitoring and evaluations by quality assuring these processes and products, and using evaluations for performance improvement, accountability and learning. It ensures that required resources are committed and arbitrates on any conflicts within the project or negotiates a solution to any problems with external bodies. In addition, it approves the appointment and responsibilities of the Project Manager and any delegation of its Project Assurance responsibilities. Based on the approved Annual

Work Plan, the PEB can also consider and approve the quarterly plans (if applicable) and also approve any essential deviations from the original plans that may be necessary.

125. In order to ensure UNDP's ultimate accountability for the project results, PEB decisions will be made in accordance to standards that shall ensure management for development results, best value money, fairness, integrity, transparency and effective international competition. In cases when consensus cannot be reached within the Board, the final decision shall rest with the Project Manager. The success of the project implementation is dependent upon strong project guidance, coordination and advocacy from the PEB.

126. In addition to the Project Executive Board, the project will establish together with the State Committee For Land and Geo-cadastre (GKZ) a Technical Coordination Group (TCG) to ensure synergetic collaboration and effective coordination of efforts by project partners and collaborators (i.e., Departments Of Livestock, Forestry, ICBA, GIZ, ICARDA, etc.). The TCG will meet on a quarterly basis to share and coordinate activities and discuss emerging challenges so that a coordinated approach can be used to address them.

127. Project Management Unit: The PMU will be located in Tashkent and appropriate office space will be provided by GKZ. Core PMU staff will consist of a National Project Manager (NPM) who will be tasked with the day-to-day management of project activities, as well as with financial and administrative reporting. Other core staff includes a part-time Chief Technical Adviser (CTA), responsible for guiding the overall technical direction of the project, and a full time National Technical Coordinator (NTC) who will be responsible for day to day supervision of project technical activities, and an Administration and Finance Assistant (AFA).

128. Additionally, the project will establish two Field Operation Offices, one in each of the project target sites located within the District Authorities' (Khokimiyat) offices or a similar relevant location to be identified and provided by them. A Project Field Officer will be recruited for each of these offices. The functions of the Project Field Offices will be to provide: liaison and coordination support with district authorities and other counterparts; logistical support for the project technical team when in the field; a focal point for district stakeholders to contact the project and access relevant literature and advisory materials. Detailed Terms of Reference for these project personnel are provided in Annex 9. In addition, the project will employ specialists in different fields to achieve different project outputs. Terms of Reference for these consultants are also outlined in Annex 9.

129. The Project Manager will be responsible for project implementation and will be guided by Annual Work Plans and follow the RBM standards. The Project Manager, in consultation with the CTA and NTC, will prepare Annual Work Plans in advance of each successive year and submit them to the Project Executive Board for approval. The National Project Manager will have the authority to run the project on a daily basis on behalf of the Implementing Partner within the constraints laid down by the PEB. The NPM's prime responsibility will be to ensure that the project produces the planned outputs and achieves the planned indicators by undertaking necessary activities specified in the project document to the required standard of quality and within the specified constraints of time and cost. This will require linking the indicators to the work plan to ensure RBM. The PMU will be responsible for arranging PEB meetings, providing materials to members prior to the meeting, and delineating a clear set of meeting objectives and sub-objectives to be met.

130. Project Assurance: UNDP will designate the Team Leader, Environment and Energy Portfolio (UNDP Uzbekistan) to provide independent project oversight and monitoring functions, to ensure that project activities are managed and milestones accomplished. The UNDP E&E Team Leader will be responsible for reviewing Risk, Issues and Lessons Learned logs, and ensuring compliance with the Monitoring and Communications Plan. The UNDP-GEF Regional Technical Advisor located in Bratislava will also play an important project assurance role by supporting the annual APR/PIR process.

131. Project Support: UNDP will provide financial and administrative support to the project in accordance with standard NIM procedure.

Financial and other procedures

132. The financial arrangements and procedures for the project are governed by the UNDP rules and regulations for National Implementation Modality (NIM).

Audit Clause

133. The Government will provide the Resident Representative with certified periodic financial statements, and with an audit of the financial statements relating to the status of UNDP (including GEF) funds according to the established procedures set out in the Programming and Finance manuals. The Audit will be conducted according to UNDP financial regulations, rules and audit policies by the legally recognized auditor of the Government, or by a commercial auditor engaged by the Government.

6. MONITORING FRAMEWORK AND EVALUATION

The project's Monitoring & Evaluation (M&E) framework will build on UNDP's existing M&E Framework for land degradation programming. Project monitoring and evaluation will be conducted in accordance with established UNDP and GEF procedures and will be provided by the project team and the UNDP Country Office (UNDP-CO) with support from the UNDP/GEF Regional Coordination Unit in Bratislava, Slovakia. The Project Results Framework provides performance and impact indicators for project implementation along with their corresponding means of verification. The LD-PMAT will be used to monitor the project's impact on land degradation (see Annex 10). The M&E plan includes: inception report, project implementation reviews, quarterly and annual review reports, a mid-term review and final evaluation. The following sections outline the principle components of the Monitoring and Evaluation Plan and indicative cost estimates related to M&E activities. The project's Monitoring and Evaluation Plan will be presented and finalized in the Project's Inception Report following a collective fine-tuning of indicators, means of verification, and the full definition of project staff M&E responsibilities.

Inception Phase

134. A Project Inception Workshop will be conducted with the full project team, relevant government counterparts, co-financing partners, the UNDP-CO and representation from the UNDP-GEF Regional Coordinating Unit within 3 months of project start up. A fundamental objective of this Inception Workshop will be to assist the project team to understand and take ownership of the project's goal and objective, as well as finalize preparation of the project's first annual work plan. This will include reviewing the logframe (indicators, means of verification, assumptions), imparting additional detail as needed, and on the basis of this exercise, finalizing the Annual Work Plan (AWP) with precise and measurable performance indicators, and in a manner consistent with the expected outcomes for the project.

135. Additionally, the purpose and objective of the Inception Workshop (IW) will be to: (i) introduce project staff with the UNDP-GEF team which will support the project during its implementation, namely the CO and responsible Regional Coordinating Unit staff; (ii) detail the roles, support services and complementary responsibilities of UNDP-CO and RCU staff vis-à-vis the project team; (iii) provide a detailed overview of UNDP-GEF reporting and monitoring and evaluation (M&E) requirements, with particular emphasis on the Annual Project Implementation Reviews (PIRs) and related documentation, the Annual Review Report (ARR), as well as mid-term and final evaluations. Equally, the IW will provide an opportunity to inform the project team on UNDP project related budgetary planning, budget reviews, and mandatory budget re-phasing's. The IW will also provide an opportunity for all parties to understand their

roles and responsibilities within the project's decision-making structures, including reporting and communication lines.

136. A detailed schedule of project review meetings will be developed by project management, in consultation with project implementation partners and stakeholder representatives and incorporated in the Project Inception Report. Such a schedule will include: (i) tentative time frames for Project Executive Board Meetings (PEBM) and (ii) project related Monitoring and Evaluation activities. Day-to-day monitoring of implementation progress will be the responsibility of the Project Manager (PM) based on the project's Annual Work Plan and agreed indicators. The PM will inform the UNDP-CO of any delays or difficulties faced during implementation so that the appropriate support or corrective measures can be adopted in a timely and remedial fashion. The PM will also fine-tune the progress and performance/impact indicators of the project in consultation with the full project team at the Inception Workshop with support from UNDP-CO and assisted by the UNDP-GEF Regional Coordinating Unit. Specific targets for the first year implementation progress indicators together with their means of verification will be developed at this Workshop. These will be used to assess whether implementation is proceeding at the intended pace and in the right direction and will form part of the Annual Work Plan. Targets and indicators for subsequent years would be defined annually as part of the internal evaluation and planning processes undertaken by the project team.

137. Measurement of impact indicators related to global benefits will occur according to the schedules defined in the Inception Workshop, using LD-PMAT, and other means of assessing project impact. Periodic monitoring of implementation progress will be undertaken by the UNDP-CO through quarterly meetings with the Implementing Partner, or more frequently as deemed necessary. This will allow parties to take stock and to troubleshoot any problems pertaining to the project in a timely fashion to ensure smooth implementation of project activities. Annual Monitoring will occur through the Project Executive Board Meetings. This is the highest policy-level meeting of the parties directly involved in the implementation of a project. The project will be subject to PEBM four times a year. The first such meeting will be held within the first six months of the start of full implementation.

138. A terminal PEB Meeting will be held in the last month of project operations. The PM is responsible for preparing the Terminal Report and submitting it to UNDP-CO and UNDP-GEF RCU after close consultation with the PEB. It shall be prepared in draft at least two months in advance of the terminal PEB Meeting in order to allow review, and will serve as the basis for discussions in the PEB Meeting. The terminal meeting considers the implementation of the project as a whole, paying particular attention to whether the project has achieved its objectives and contributed to the broader environmental objectives. It decides whether any actions are still necessary, particularly in relation to sustainability of project results, and acts as a vehicle through which lessons learnt can be captured to feed into other projects under implementation.

139. UNDP Country Offices and UNDP-GEF RCU as appropriate, will conduct yearly visits to project sites based on an agreed upon schedule to be detailed in the project's Inception Report/Annual Work Plan to assess first hand project progress. A Field Visit Report/BTOR will be prepared by the Country Office and UNDP-GEF RCU and circulated no less than one month after the visit to the project team, all PEB members, and UNDP-GEF.

Project Reporting

140. The PMU, in conjunction with the UNDP-GEF extended team, will be responsible for the preparation and submission of the following reports that form part of the monitoring process. The first six reports are mandatory and strictly related to monitoring, while the last two have a broader function and their focus will be defined during implementation.

141. A Project Inception Report will be prepared immediately following the Inception Workshop. It will include a detailed First Year Work Plan divided in quarterly time-frames detailing the activities and

progress indicators that will guide implementation during the first year of the project. This Work Plan will include the dates of specific field visits, support missions from the UNDP-CO or the Regional Coordinating Unit (RCU) or consultants, as well as time-frames for meetings of the project's decision making structures. The Report will also include the detailed project budget for the first full year of implementation, prepared on the basis of the Annual Work Plan, and including any monitoring and evaluation requirements to effectively measure project performance during the targeted 12 month time-frame.

142. The Inception Report will include a more detailed narrative on the institutional roles, responsibilities, coordinating actions and feedback mechanisms of project related partners. In addition, a section will be included on progress to date on project establishment and start-up activities and an update of any changed external conditions that may affect project implementation. When finalized, the report will be circulated to project counterparts who will be given a period of one calendar month in which to respond with comments or queries. Prior to this circulation of the IR, the UNDP Country Office and UNDP-GEF's Regional Coordinating Unit will review the document.

143. The Annual Project Report/ Project Implementation Review (PIR) must be completed once a year. The APR/ PIR is an essential management and monitoring tool for UNDP, the Executing Agency and Project Coordinators and offers the main vehicle for extracting lessons from on-going projects at the portfolio level.

144. Quarterly progress reports: Short reports outlining main updates in project progress will be provided quarterly to the local UNDP Country Office and the UNDP-GEF RCU by the project team, headed by the Policy Specialist using UNDP formats.

145. UNDP ATLAS Monitoring Reports: A Combined Delivery Report (CDR) summarizing all project expenditures, is mandatory and should be issued quarterly. The PM will send it to the PEB for review and the Executing Partner will certify it. The following logs should be prepared: (i) The Issues Log is used to capture and track the status of all project issues throughout the implementation of the project. It will be the responsibility of the PM to track, capture and assign issues, and to ensure that all project issues are appropriately addressed; (ii) the Risk Log is maintained throughout the project to capture potential risks to the project and associated measures to manage risks. It will be the responsibility of the PM to maintain and update the Risk Log, using Atlas; and (iii) the Lessons Learned Log is maintained throughout the project to capture insights and lessons based on the positive and negative outcomes of the project. It is the responsibility of the PM to maintain and update the Lessons Learned Log.

146. Project Terminal Report: During the last three months of the project the project team under the PM will prepare the Project Terminal Report. This comprehensive report will summarize all activities, achievements and outputs of the Project, lessons learnt, objectives met or not achieved, structures and systems implemented, etc. and will be the definitive statement of the Project's activities during its lifetime. It will also lay out recommendations for any further steps that may need to be taken to ensure the long term sustainability and the wide replicability of the Project's outcomes. It will be drafted prior to the conduction of the independent terminal evaluation and finalized after. In this way it will both contribute to the understanding of the evaluators and can benefit in its final version from the TE conclusions and evaluators comments.

147. Periodic Thematic Reports: As and when called for by UNDP, UNDP-GEF or the Implementing Partner, the project team will prepare Specific Thematic Reports, focusing on specific issues or areas of activity. The request for a Thematic Report will be provided to the project team in written form by UNDP and will clearly state the issue or activities that need to be reported on. These reports can be used as a form of lessons learnt exercise, specific oversight in key areas, or as troubleshooting exercises to evaluate and overcome obstacles and difficulties encountered.

148. Technical Reports are detailed documents covering specific areas of analysis or scientific specializations within the overall project. As part of the Inception Report, the project team will prepare a draft Reports List, detailing the technical reports that are expected to be prepared on key areas of activity during the course of the Project, and tentative due dates. Where necessary this Reports List will be revised and updated, and included in subsequent APRs. Technical Reports may also be prepared by external consultants and should be comprehensive, specialized analyses of clearly defined areas of research within the framework of the project and its sites. These technical reports will represent, as appropriate, the project's substantive contribution to specific areas, and will be used in efforts to disseminate relevant information and best practices at local, national and international levels.

149. Project Publications will form a key method of crystallizing and disseminating the results and achievements of the Project. These publications may be scientific or informational texts on the activities and achievements of the Project, in the form of journal articles, multimedia publications, etc. These publications can be based on Technical Reports, depending upon the relevance, scientific worth, etc. of these Reports, or may be summaries or compilations of a series of Technical Reports and other research. The project team, under the PM, will determine if any of the Technical Reports merit formal publication, and will also (in consultation with UNDP, the government and other relevant stakeholder groups) plan and produce these Publications in a consistent and recognizable format. Project resources will need to be defined and allocated for these activities as appropriate and in a manner commensurate with the project's budget.

Independent Evaluations

150. The project will be subjected to at least two independent external evaluations as follows: An independent Mid-Term Review will be undertaken at exactly the mid-point of the project lifetime. The Mid-Term Review will determine progress being made towards the achievement of outcomes and will identify course correction if needed. It will focus on the effectiveness, efficiency and timeliness of project implementation; will highlight issues requiring decisions and actions; and will present initial lessons learned about project design, implementation and management. Findings of this review will be incorporated as recommendations for enhanced implementation during the final half of the project's term. The organization, terms of reference and timing of the mid-term review will be decided after consultation between the parties to the project document. The Terms of Reference for this Mid-term review will be prepared by the UNDP CO based on guidance from the UNDP-GEF Regional Coordinating Unit.

151. An independent Final Evaluation will take place three months prior to the terminal Project Executive Board meeting, and will focus on evaluating the overall impact of the project in the context of its goal, objectives outcomes and outputs. The final evaluation will look at impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental goals. The Final Evaluation should also provide recommendations for follow-up activities. The Terms of Reference for this evaluation will be prepared by the UNDP CO based on guidance from the UNDP-GEF Regional Coordinating Unit.

Learning and Knowledge Sharing

152. Results from the project will be disseminated both within and beyond the project intervention zone through a number of existing information sharing networks and forums. On-going internal assessment by PMU staff will help to collate lessons learned, and will seek to identify what the project team considers to be useful and practical information to gather and analyse. Because this requires additional effort, time and funds, an associated budget has been included for this.

153. In addition, the project will participate, as relevant and appropriate, in UNDP/GEF sponsored networks, organized for Senior Personnel working on projects that share common characteristics. UNDP/GEF Regional Unit has established an electronic platform for sharing lessons between the project

coordinators. The project will identify and participate, as relevant and appropriate, in scientific, policy-based and/or any other networks, which may be of benefit to project implementation though lessons learned. The project will identify, analyse, and share lessons learned that might be beneficial in the design and implementation of similar future projects. Identify and analysing lessons learned is an on- going process, and the need to communicate such lessons as one of the project's central contributions is a requirement to be delivered not less frequently than once every 12 months. UNDP/GEF shall provide a format and assist the team in categorizing, documenting and reporting on lessons learned.

154. Capturing and sharing knowledge and lessons learned will constitute an important component of the project and an essential way to ensure sustainability and replicability of project achievements. This project element cuts across all project components. It is also noteworthy that most field areas are unable to receive electronic information. Therefore reliance on printed materials will be high.

Communications and Visibility Requirements

155. Full compliance with UNDP's Branding Guidelines and guidance on the use of the UNDP logo will be maintained. These can be accessed at http://web.undp.org/comtoolkit/reaching-the-outside-world/outside-world-core-concepts-visual.shtml. Full compliance will also be maintained with the GEF Branding Guidelines and guidance on the use of the GEF logo. These can be accessed at http://www.thegef.org/gef/GEF_logo. The UNDP and GEF logos will be the same size. When both logos appear on a publication, the UNDP logo will be on the left top corner and the GEF logo on the right top corner.

156. Full compliance will also be maintained with the GEF's Communication and Visibility Guidelines (the "GEF Guidelines").[7] Amongst other things, the GEF Guidelines describe when and how the GEF logo needs to be used in project publications, vehicles, supplies and other project equipment. The GEF Guidelines also describe other GEF promotional requirements regarding press releases, press conferences, press visits, visits by Government officials, productions and other promotional items.

157. Where other agencies and project partners have provided support through co-financing, their branding policies and requirements will be similarly applied.

Table 13. M&E Activities, Responsibilities, Budget and Time Frame

Type of M&E activity	Responsible Parties	Budget USD Excluding project team Staff time	Time frame
Inception Workshop	Project Manager UNDP CO UNDP GEF	$10,000	Within first two months of project start up
Inception Report	Project Team UNDP CO	None	Immediately following Inception workshop
Measurement of Means of Verification for Project Purpose Indicators	Project Manager will oversee the hiring of specific studies and institutions, and delegate responsibilities to relevant team members	To be finalized in Inception Phase.	Start, mid and end of project
Measurement of Means of Verification for Project Progress and Performance (measured on an annual basis)	Oversight by Project Manager Monitoring and Evaluation Officer Project team	To be determined as part of the Annual Work Plan's preparation.	Annually prior to ARR/PIR and to the definition of annual work plans
APR and PIR	Project Team UNDP-CO UNDP-GEF	None	Annually
Quarterly progress reports	Project team	None	Quarterly

[7]The GEF Guidelines can be accessed at http://www.thegef.org/gef/sites/thegef.org/files/documents/C.40.08_Branding_the_GEF%20final_0.pdf

Type of M&E activity	Responsible Parties	Budget USD Excluding project team Staff time	Time frame
CDRs	Project Manager	None	Quarterly
Issues Log	Project Manager UNDP CO Programme Staff	None	Quarterly
Risks Log	Project Manager UNDP CO Programme Staff	None	Quarterly
Lessons Learned Log	Project Manager UNDP CO Programme Staff	None	Quarterly
Mid-term Evaluation	Project team UNDP- CO UNDP-GEF Regional Coordinating Unit External Consultants (i.e. evaluation team)	$30,000	At the mid-point of project implementation.
Final Evaluation	Project team, UNDP-CO UNDP-GEF Regional Coordinating Unit External Consultants (i.e. evaluation team)	$30,000	At the end of project implementation
Terminal Report	Project team UNDP-CO local consultant	Funds are budgeted for local consultants to assist where needed (approximately $10,000)	At least one month before the end of the project
Lessons learned	Project team Monitoring and Evaluation Officer UNDP-GEF Regional Coordinating Unit (suggested formats for documenting best practices, etc.)	Funds are budgeted for local consultants to assist where needed (approximately $10,000)	Yearly
Audit	UNDP-CO Project team	$5,000	Once during lifetime of project as per UNDP audit regulations
Visits to field sites	UNDP Country Office UNDP-GEF Regional Coordinating Unit (as appropriate) Government representatives	Paid from IA fees and operational budget	Yearly
TOTAL indicative COST Excluding project team staff time and UNDP staff and travel expenses		USD 95,000	

7. LEGAL CONTEXT

158. This document together with the CPAP signed by the Government and UNDP which is incorporated by reference constitute together a Project Document as referred to in the SBAA and all CPAP provisions apply to this document.

159. Consistent with the Article III of the Standard Basic Assistance Agreement, the responsibility for the safety and security of the implementing partner and its personnel and property, and of UNDP's property in the implementing partner's custody, rests with the implementing partner.

160. The implementing partner shall:

a) put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried;

b) assume all risks and liabilities related to the implementing partner's security, and the full implementation of the security plan.

161. UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of this agreement.

162. The implementing partner agrees to undertake all reasonable efforts to ensure that none of the UNDP funds received pursuant to the Project Document are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999). The list can be accessed via http://www.un.org/Docs/sc/committees/1267/1267ListEng.htm. This provision must be included in all sub-contracts or sub-agreements entered into under this Project Document.

8. ANNEXES

ANNEX 1: CRITERIA AND PROCESS FOR SELECTION OF TARGET DISTRICTS

Criteria and Process

Step 1: Consultations and expert opinions were sought from specialists with extensive experience in the agricultural sector as a whole and from those who specialized in specific areas (such as rain-fed agriculture, forestry, animal husbandry, etc.). For this purpose, multiple consultations about suitable pilot areas were held with specialists of the national partner State Committee for Land Resources, Geodesy, Cartography and State Cadastre (Land Use Design Institute, State Research Institute for Soil Science and Agro-chemistry), Ministry of Agriculture and its organizations (Horticulture Research Institute named after Shreder, Scientific Production Centre, Main Forestry Department, other institutions).

Based on the advice from the specialists of the national partner Goskomzemgeodezcadastr (GKZ), and Ministry of Agriculture, the following districts were visited Romitan, Jondar, Shofirkon and Karakul districts of Bukhara region; Farish, Bakhmal, and Zaamin districts of Jizzakh region; and Mubarek district of Kashkadarya region, to collect preliminary data and to discuss the problems in non-irrigated areas.

Region	Districts Visited	Districts Selected
Jizzak	Bakhmal, Zaamin, Farish	Zaamin
Bukhara	Karakul, Jondor, Romitan, Shofirkon	Karakul
Kashkadarya	Mubarek	

In parallel, consultations were held with teams of other UNDP projects implemented in the areas of interest as a pilot site for this project, in particular, "Local Governance Support Project" in Zaamin district of Jizzakh region, and "Climate risk management in Uzbekistan" which is carried out in Kashkadarya region.

Step 2: Selection based on quantitative indicators. For the selection based on quantitative indicators the criteria were defined, which can be divided into the following categories: areal (land types such as irrigated land, pasture, forestry and land area), demographic, environmental, and socio-economic. To determine the categories, the group considered that criteria should reflect current situation, correspond to the goals of the project, and more importantly, have available data that is either already collected by different organizations or easy to collect and be easily accessible.

Criteria in areal category (i.e. land area) were used as a priority in the selection of pilot districts. This category has helped to reduce the number of regions under consideration from the initial 157 districts to 28 districts, and to focus on the collection of information for the more detailed criteria (percent of the rural population, pasture per livestock head, pasture degradation, gross domestic product).

This approach allowed to compare and to mutually substantiate (i) specialists recommendations, and (ii) selection based on quantitative indicators for the selection of a pilot districts. The final list consisted of 9 districts out of which 2 districts were selected based on factors such as logistics (distance or proximity of the project areas, infrastructure, etc.), the representativeness of the landscape in accordance with the project topic, level of interest and readiness to support project initiatives at various levels (local, district, regional and national partners).

Map 1: Contextual map of Uzbekistan showing location of project sites

Land and Livestock Resources in the Karakul District

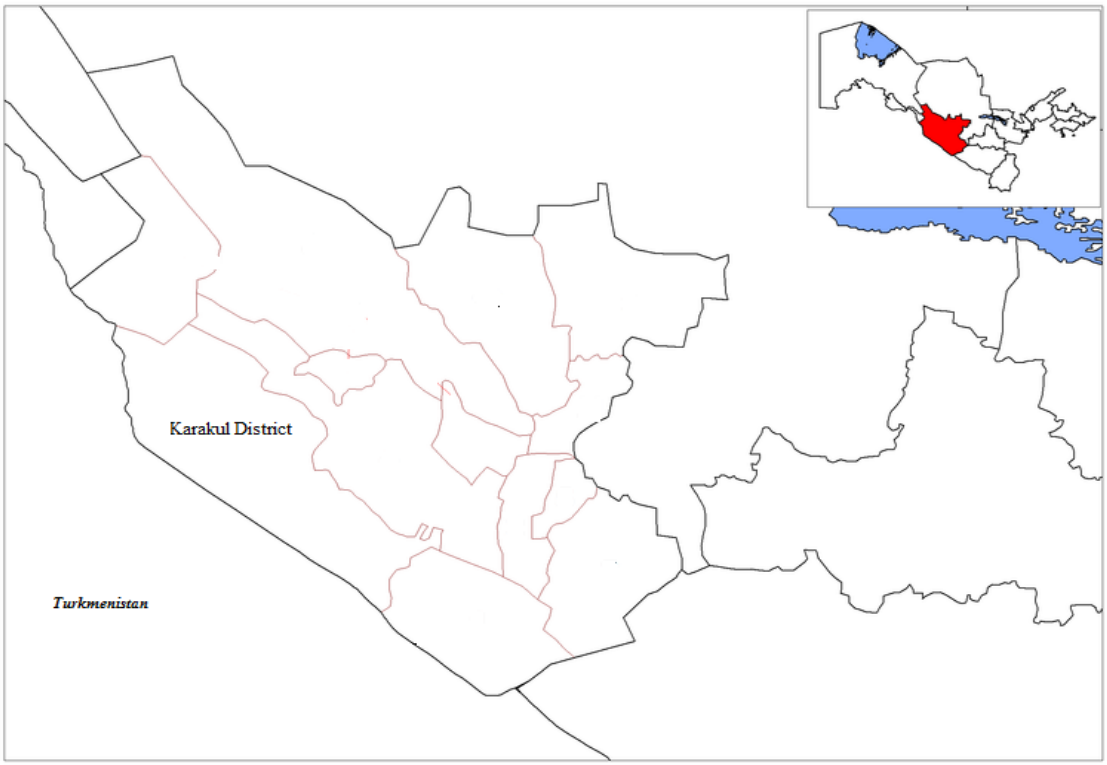
The Karakul district is located in the western part of Bukhara oblast. Most of it is covered by Kyzylkum desert. It borders with Turkmenistan in the west, and lies on the Amudarya River. The total area of the district is 695,400 ha, including 26,600 ha of irrigated land (3.8%), 355,700 ha rangelands and hayfields (51.2%), 86,200 ha of forestry lands (12.4%). The area of agricultural lands totals 495,000 ha, including 24,800 ha of irrigated lands, 17,700 ha of irrigated arable land, 1,500 ha of perennial plantations of irrigated lands, 300 ha of irrigated fallow lands, 277,600 ha pastures and hayfields, 5,300 ha forestry lands, 185,500 ha of other land unused in agriculture.

There are 24,374 dekhan farms (individual farms, usually small household plots, operated by families), 269 commercial farms, including 4 karakul and 3 meat and dairy producers, and one karakul shirkat in the district. Main crops cultivated on irrigated land are cotton and grain. There are specialized horticulture and viniculture farms, vegetable growing farms, poultry, fish- and beekeeping farms. The area of Karakul forestry comprises 113,765 ha, game forestry 8,275 ha, and farms for medicinal herbs 26,423 ha.

In the last 10-12 years the surface area of irrigated lands remains stable, but the yield is relatively low and further decreasing. There is practically no crop rotation and hardly any fodder crop (alfalfa) is produced

on irrigated land. This fact together with the increasing number of livestock negatively affected the fodder base of livestock farming, and is one of the reasons for the increasing pressure on rangeland.

Map 2: Bukhara Oblast, Karakul District



Soil degradation is evident in many parts of the district, and the reasons for it include inadequate land improvement activities without appropriate machinery, a lack of essential funds, application of inadequate amounts of organic fertilizers, and a lack of biological methods for maintaining and restoring soil fertility. There is no rainfed arable land, neither in the district nor in the oblast.

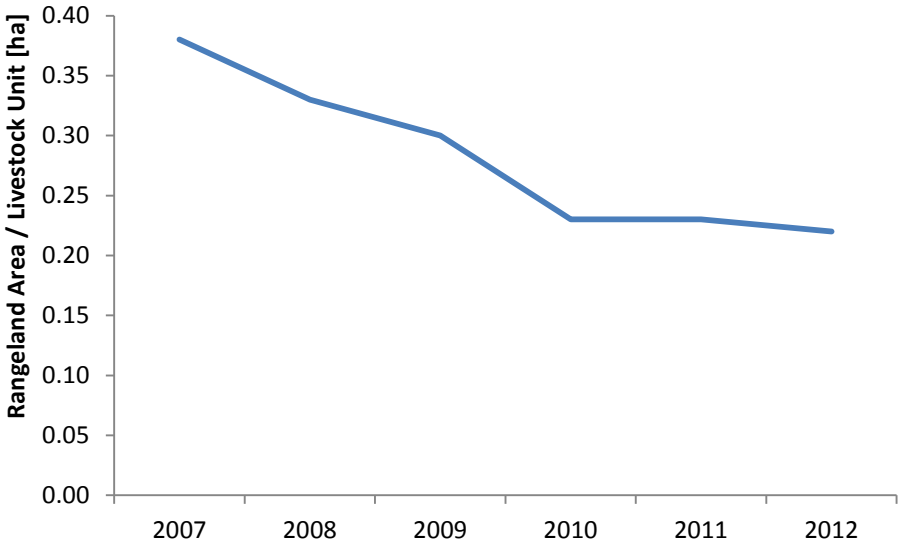
The area of rangeland in the district decreased in the last 10-12 years by 80,000 ha, and the area of forests increased by that much through transfer of degraded pastures to the category of forestry lands. The area of the pastures belonging to agricultural entities decreased by 13,100 ha, whereas the areas of these farms remained the same. This trend in the area of pastures indicates a quite high degree of degradation. Main causes for the degradation of pasture lands are:

- Non-systemic grazing of cattle, continuous growth of cattle population (dekhan farms) and overgrazing (exceeding permissible number of livestock in certain areas);
- Dysfunctional wells and boreholes, and lack of funds for their rehabilitation;
- Absence of a mechanism to regulate livestock of households;
- More frequent droughts and less precipitation due to climate change;
- Decreasing yield of natural fodder crops;
- Lack of land improvement works to restore productivity of pasture vegetation;
- Worsening fodder base in the livestock sector;
- Lower cattle productivity, and
- Decreasing income of local households and growing dependence on livestock farming.

Livestock population in the district totals (as of 2012): cattle: 127,700 heads, goats and sheep: 225,100 heads, poultry: 244,100 heads. In recent years both the number of cattle and sheep/goats grew significantly. Most cattle are owned by dekhan farms (97.7%). The sheep/goats owned by dekhan farms also constitute high percentage (82.9%).

Forests in the district (haloxylon, tamarisk, and other bushes) have primarily the function to protect the soil from erosion. Inadequate gas and electricity supply to rural households forces local people in winter to cut down trees as firewood. This negatively affects the environment of forestry lands and natural landscapes, causes sand mobility and expansion thereof onto arable lands, and causes wind erosion of soil.

Figure 1.Grazing pressure by livestock in natural rangeland[8]



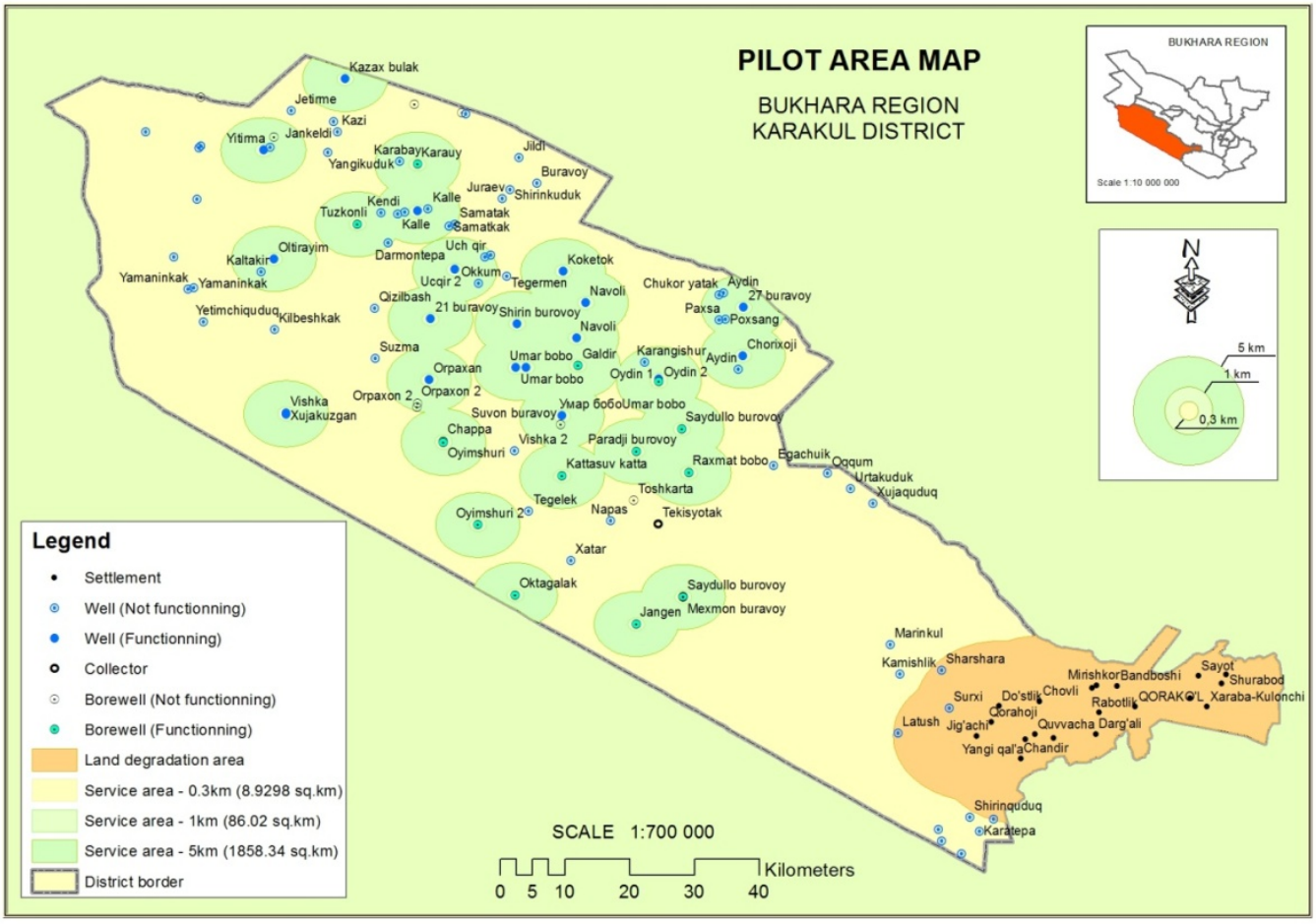
The area of the Karakul shirkat totals 425,900 ha (61% of the area of district) and includes 277 ha of irrigated lands (of which 203 ha are irrigated arable land and irrigated perennial plantations), and 266,400 ha of rangeland and hayfields (56.1% of total area of shirkat), with no forests on the land of the shirkat. 363 families live on dekhan farms. There are no major human settlements. Land not used for agriculture totals 159,200 ha. Approximately 20% of pasture lands are degraded gypsum soils, about 50% of the area is desert sandstones with fairly good vegetation (300-400 kg/hectare), and 30% of the area is covered by mobile sands moving from the north towards Amudarya River.

The farm has approximately 2,300 heads of sheep and goats, and 700-800 livestock of dekhan farms graze on its pastures annually. Shepherds manage the grazing of private cattle of dekhan farms by making contracts with shirkats on temporary use of shirkat pastures.

It is mandatory to hire shepherds if the number of privately-owned cattle exceeds 150 heads. Seasonal rangeland rotation is not observed. There are 14 wells in the territory of the farm, but none of them is functioning. The soil around wells is overgrazed. There is virtually no construction of new wells and maintenance of existing wells, as Obi-hayot, the oblast-level self-financing enterprise, requires 30-40 million soums per unit for these works, which is not affordable for the farm.

[8] For the purpose of this graph, the number of livestock was transferred to "livestock units" (1 cattle = 6.6 sheep units), and then the grazing land available divided by the number of livestock units. The graph clearly shows that the land available per animal for grazing is significantly decreasing in the last 6 years.

Map 3: Wells, Pasture Use and Degradation



In recent years, the shirkat has been expanding its sheep herds, which led to a reduction of production of karakul hides and meat. 70% of the offspring is used for expanding the herd, and only 30% is slaughtered for hides. Karakul hides are procured by the buyers at a price of 1,500-2,000 soums per unit depending on its size and quality, and 1 kg of wool for 100 soum. The farm is self-financing, and pursues a 5-year development plan approved by the shirkat board, but it does not envisage development of production infrastructure. The number of staff is 43 and wages are paid on a regular basis.

Pastures – the main land of shirkats – are significantly affected by degradation. The causes of degradation are practically the same as in Karakul district in general. The yield of the pastures and cattle productivity is declining. Droughts recur periodically (once in 6-7 years) and in these years herds are moved to Navoi oblast, where the fodder situation is better. Degradation of pastures negatively affects the effectiveness of the farm and income of its workers.

Currently there are 225,000 heads of sheep in Karakul district, including the only Karakul shirkat with 23,000 sheep. The remaining 202,000 livestock is privately owned; 8,000 of which grazes on the pastures of the shirkat based on contracts. The pasture land available for one sheep is excessive in the shirkat (10 ha), which indicates that the shirkat currently has redundant area of lands, which causes extensive management of farms and degradation of pastures. Therefore, a logical question arises: where do the remaining 194,000 sheep graze? According to the data of Karakul forestry administration, approximately 5,000 sheep graze on its pastures per season (April – October) based on fees. In this case, where do the remaining 189,000 privately owned sheep graze, if the area of shirkat pastures (266,000 ha) occupies 75% of the entire pasture area of the district? So it leads to the conclusion that some 95,000 heads of privately-

owned sheep/goats and cattle are kept using feed, partly produced in the irrigated zone and partly purchased. Thus, one can assume that a significant part of sheep and goats graze on pastures of the shirkat without records. If this is true, then the unrecorded private livestock grazing on pastures of the shirkat becomes the main factor of overgrazing. Certainly, this hypothesis must still be verified.

As a result of degradation, 80,000 ha of pastures in the district were transferred from agricultural use to forestry, which indicates significant extent of degradation. In recent years no inventory of forestry pastures was conducted and their environmental state has not been assessed. Rangeland rotation is not practiced on the lands of the forestry authority, which gives rise to degradation. Unauthorized felling of trees for household needs continues on forestry land, which is causing wind erosion and intensification of sand mobility. There are no protective forest lines in the area without forest cover. The forestry authority does not repair dusfunctional wells.

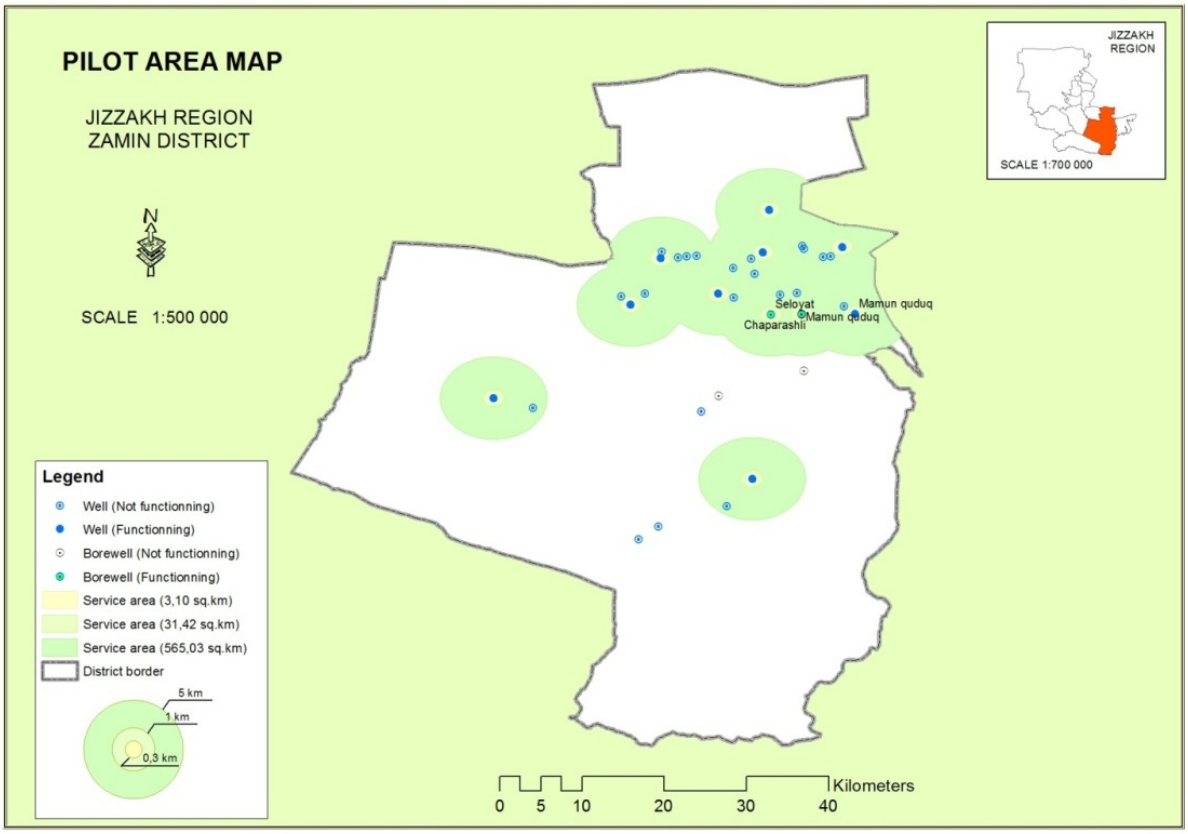
Land and Livestock Resources in the Zaamin District

Zaamin District is located on south-eastern part of Jizzakh oblast. The total area of the district is 286,600 ha. The area of forests comprises 56-57,000 ha. Forests protect the soil and consist of tree plantations such as haloxylon, elm, almonds, and pistachios. Forestry area includes Zamin forestry entity with 38,200 ha in total, and 15,300 ha forest area, Zaamin protected area with 26,800 ha in total and 22,200 ha forest area, Zaamin National Park with 23,900 ha total and 12,270 ha forest area, and other forest area of the households, shirkat etc.

Map 4: Djizak Oblast, Zaamin District

Irrigated lands of district constitute 37,200 ha and include 34,100 ha of irrigated arable land, 500 ha of irrigated perennial plantations, 2,200 ha of irrigated lands of dekhkan farms, 400 ha of irrigated forestry plantations[9]. In recent years land inventory was conducted only on irrigated lands. There are no updated maps showing non-irrigated lands (pastures, rainfed arable lands and forestry), and the borders of the farms are not clearly delineated. Parts of the irrigated lands developed by commercial farms are currently not used for cultivation because of a deficit in irrigation water resources. Irrigated lands in the district are slightly salinized. Irrigation and wind erosion is underway on light loamy clay soils. There is practically no protective forest cover on irrigated zone. Irrigated soils are significantly depleted, and average soil fertility rate in the district totals 51.

Map 5: Zaamin – Wells and Pasture Use



The area of rainfed arable land in the district totals 35,100 ha including those in agricultural entities (34,800 ha). Notably since 2005 the area of rainfed arable land in the district expanded by 1,700 ha.[2] About 30-35% of rainfed arable land is not cultivated (approximately 1200 ha, according to the data of the experts of the district khokimiat), remains as rainfed fallow land due to the less precipitation and ineffective cultivation because of low yield. But these unused rainfed lands are not fully recorded in land inventory (only 400 ha are recorded). Yield of grains on rainfed arable land stands at as less as 400-500 kg per hectare because of degradation and low precipitation. Grain cultivation is thus not economically viable, and the income of farmers is declining. Main forms of degradation of rainfed arable land are water and wind erosion, weeds and bush vegetation, low soil productivity, drying of soil layer, and its degradation, and missing protection of the agricultural land by a forest cover.

[9] Land Inventory of Uzbekistan. Goskomgeodezcadastre. 2012

Pasture lands in the district constitute 12700 ha, including 115,100 ha of agricultural entities.[10] Significant area of the pastures degraded. Complete degradation of pasture lands around settlements and functioning wells within 500-1000 metres is observed. In the last 10-15 years there was no inventory of pastures, and no land improvement activities were implemented to rehabilitate the productivity of rangelands. Substantial growth of privately owned livestock in the district in the absence of systemic approach to the use of these lands worsens degradation of pastures. In recent years the number of cattle significantly increased on district level and now totals 87,800 heads, plus 161,400 heads of sheep and goats[11]. The area of pasture land per 1 sheep/goat is 0.8 hectare. With the growth of livestock, the productivity of the rangeland declines.

There are 12,645 dekhan farms (private households) in the district, which is quite a high number compared to other districts of the oblast. There are also two karakul shirkats (Yangi chorvador and Zaamin) and 595 commercial farms – producers of grains on rainfed arable land as well as cotton, grapes, and vegetables. The Shirin Karakul Shirkat was reorganised into a commercial rainfed grain farm in 2011. Pasture land was transferred to Yangi chorvador livestock shirkat. Grain farmers with cattle were provided to respective area of pasture lands.

[10] Land Inventory of Uzbekistan. Goskomgeodezcadastre. 2012
[11] Passport of the district in 2012

ANNEX 2: DESCRIPTION OF PROCESS FOR INVENTORY AND CLASSIFICATION OF LAND IN PROJECT SITES

Under Output 1.1.1, the project will undertake a detailed inventory and classification of all types of lands in project sites. This annex describes the methodology that is to be followed.

Land inventory: Purpose

Land inventory is conducted to clarify or determine the appropriate land use for an area, the borders (when not clearly marked),

Or

To determine unused land, irrationally used land, land that is not being used according to its previously designated purpose, or land that would be better used for other purposes than those previously designated.

Land inventory involves the following components and order:

- preparatory works,
- field survey,
- deskwork and organization of documents,
- preparation of report, preparation of inventory materials for review and approval.

1. Preparatory stage

Preparatory stage of land inventory comprises of:

- Collection, analysis and systematization of issued documents on rights (правоустанавливающих)
- Collection, study, and analysis of topographic-geodesy work materials conducted on pilot territories
- Collection and systematization of land allocation materials
- Collection, study, and analysis of soil and geo-botanic surveys, other information
- Analysis and systematization of all materials and documents that have cadastre information
- Preparation and approval of Terms of references to carry out land inventory

The list of land owner entities (private, permanent or temporary ownership, use, lifetime inherited ownership, rent) in the district is prepared based on analyses and compilation of land-cadastre data, organized by land categories, cadastre blocks with cadastre number identification, allocated land area, and by land use.

At preparation stage, special attention should be given to information about initial geodesic network of selected territory, quality and reliability of existing topographic maps and plans of different scales, cartographic works carried out earlier, design materials that have land cadastre value.

As a plan-cartographic basis recent existing land plans of agricultural entities, land-cadastre maps, satellite images, aerial photos of 1:10000, 1:25000 and 1:50000 scales (for desert and semi-desert zones) can be used.

Based on collected materials a detailed Terms of references to carry out land inventory is prepared including timeframe and preparation and submission of report in two copies.

Juridical borders of entities are put on the plan according to the list with indication of cadastre numbers of land plots, as well as borders of irrigated, rainfed-pasture and pasture zones. This plan basis with juridical borders of land plots should be confirmed with district branch of land resource and state cadastre.

In case of absence of earlier initial materials, additional topo-geodesic, soil, geo-botanic, estimation calculations and other works related to land inventory are carried out as separate activity.

2. Field survey

Field work is conducted with the use of GPS receivers. Field surveys are carried out by specialists of "Uzdavyerloyiha" (State design Institute for land management) in collaboration with representatives of entities with the right to ownership of land plots. If needed, specialists can be attracted from agriculture, water resources, architecture-construction and other branches of the district. During the field survey land ownership documents or rights to ownership of the entities are checked.

During the field survey the following should be placed onto the plan-cartographic basis:

- Actual borders of the used land plots;
- Factual borders of settlements, irrigated, rain-fed and pasture zones. Within settlements public land types, land of dekhan and private households with lifetime inherited rights including total number of such entities, as well as non-agricultural land should be indicated;
- Contours of agricultural and other land types, possible intra farm reserve land for irrigation and development, land requiring ameliorative or other type of improvement;
- Newly formed topographic elements, as well as new constructions.

Modified (or new) contours of land use types and newly formed (revealed) elements are placed onto plan basis based on field codes, measurements and other methods that provide accurate representation, and if needed, topographic survey is carried out.

Factual agricultural and other land use types should be shown during the field survey.. In cases when agricultural land use types are found in poor conditions, there is revealed a mismatch between juridical and factual borders of the land plots, there is evidence of the use of land not according to the intended, or there is evidence that the intended use is in appropriate, all materials are summarised and presented to the district workgroup committee for review and decision.

The following is identified during geo-botanic survey of natural fodder land areas:

- Composition and structure of vegetation cover and its association with conditions of locality, area and areal dislocation feature of hayfields and pastures;
- seasonality of use, suitability for grazing and forage production of various types of livestock;
- yield, quality of feed, hay and pasture supplies of feed (seasonal use);
- infrastructure features for the use of pastureland, availability of watering points, water wells, pasture rotation;
- the possibility of hay making, protection of grasslands;
- pasture area in need of improvement (including draining the area, irrigation);
- the possibility of transformation of grasslands and pastures into other land use types.

3. Deskwork processing of inventory materials and preparation of documents.

Based on the results of the field survey, drawn and organised in accordance with the applicable rules the plan and land inventory sheet for each parcel of land is prepared in duplicate. Each parcel of land will have information that includes the following:

- Brief explanatory note (with suggestions for future use of land and the elimination of shortcomings in land use);

- An inventory of land, including legend, drawings.

Copies of formed cases on each parcel of land are given to a business entity, the District Department of Land Resources and State Cadastre. The original copy is kept in the archives of the relevant branch of the state design institute, organization mandated for implement land inventory and documentation.

4. Preparation of compiled report on the land inventory

Materials of land inventory are compiled and summarized into a brief explanatory note including the district administration decision, which is then submitted to the District Working Committee.

The explanatory note also reflects cases of ownership availability supported with legal documents, in case of shortcomings suggestions for their rectification.

Additional Points

Equipment and materials**:** In order to undertake the land inventory certain equipment and materials are required for digital mapping and data processing. All such equipment will be provided by relevant branches of GKZ and other relevant. Some materials and transportation support for the field survey will be provided by the project.

Specialist Personnel: These will be provided by GKZ and other relevant state agencies. The project will provide per diem support for field work.

Additional technical input: The project will provide additional methodological and technical input during the inventory process in order to improve its openness and flexibility in terms of redefining optimum land use options and effectiveness in a wider integrated land use context at the district level.

Legislative basis: Main documents regulating inventory of dry and forest lands are:

- Land code
- Law on “State land cadastre”
- Regulation about and monitoring
- Temporary regulation about geo-botanic survey of natural fodder lands of collective, state and other agricultural farms in Russian Federation, approved by the Ministry of agriculture, 05.10.1973
- All-Union instruction about conducting geo-botanic survey of natural fodder lands and making small scale geo-botanic maps, approved by Ministry of agriculture of USSR, 29.06.1982
- Methodological manual about classification of hayfields and pastures in plains of European part of USSR, approved by VASKhNIL, 1987
- Methodological manual about classification of natural fodder lands in plains of Siberia and Far East, approved by VASKhNIL, 1989
- Methodological recommendations about assessment and mapping of natural fodder lands of forest zones using airspace information, approved by VASKhNIL, 1990
- Instructions on land inventory in Republic of Uzbekistan, VNA – 32 – 003-09

ANNEX 3: TECHNICAL EXTENSION SERVICES PROVIDED BY THE PROJECT

163. Under Output 1.1.3 of the project, technical extension services are to be improved. Provisionally, the project has identified 2 main mechanisms for testing and up-scaling agricultural extension services to rural communities: (a) Establishment of Zoo-technical Centres (combination of State and Private enterprise); and (b) Establishment of Farmer Field Schools at Sub-district level (in collaboration with self-governing councils or *mahallas*).

164. Additionally, the project will seek to develop the role / capacity of District Vocational Colleges to support the above structures and provide additional extension services. The role of Forestry Leshoz to provide forestry extension services (mainly in the context of Joint Forest Management schemes and to other land users renting forestry fund territories) will also be further investigated.

Zoo-technical Centres:

165. Zoo- technical Centres are a model tested by a number of UNDP – GEF projects (Nuratau Kyzylkum Biosphere Reserve Project 2006, SLM Project 2011). The Centres provide two key functions: (a) Delivery of state vaccination and disease control programmes, and (b) Delivery of commercial veterinary care and livestock / pasture management advisory services.

166. The Centres operate on a quasi-commercial basis and are staffed usually by a veterinary/livestock expert accredited by the Department of Livestock and an accountant. The model was developed in order to find a viable and sustainable replacement for the previously fully state funded/operated veterinary services provided during the Soviet era that collapsed in the 1990s. As a result, livestock owners (both large State "cooperative" farms or shirkats and private / dekhan farmers) had no, or very limited, access to veterinary care and the state lost a mechanism to deliver essential state programmes. The establishment of quasi-commercial zoo-technical centres provides a win-win solution. The state has a mechanism by which to deliver essential programmes of national importance, but does not have to cover running costs or investments, and the local population benefits from availability of veterinary care outside of that provided under state programmes, and from relevant technical advice and guidance on livestock management. Pilots of such Centres have demonstrated that when the operating staff is sufficiently motivated, the Centres can be financially sustainable and provide important veterinary and livestock management extension services.

167. The Project will seek to replicate the existing experience from other sites within the project's target districts to up-scale this experience and work with the local authorities and representatives of the Department for Livestock (MAWM) to do this. In brief, the most viable historical Zoo-technical centres will be identified, interested local veterinary personnel will be identified, appropriate extension training and business management skills will be taught to them, and some initial investment costs will be covered (for example, centre refurbishment and basic equipment). The project will then provide on-going operational advice to centre staff in order to facilitate their financial sustainability and fine tune delivery of priority and high demand extension services. Provisionally, it is expected to support the establishment of two such centres at each of the project sites (4 in total), depending on demand and viability. Approximately no more than USD 10,000, and less if possible, is expected to be invested in each in order to maximize the chance that such an approach is economically viable for replication in the future by local authorities and Department of Livestock.

Farmer Field Schools (FFS):

168. Background: During the Soviet era, state and collective farms had access to the services of agronomists who oversaw the process of plant cultivation and offered necessary advice and solutions. The reform of the collective and state farms system led to the establishment of a huge number of farmer households. The majority of new farmers (dekhan farmers) do not possess technical knowledge and practical experience necessary to manage land efficiently and they lack opportunities to get good practical advice in the field of agriculture. In addition, the circumstances have changed dramatically since

independence, and many of the methods and approaches used in agriculture need adjustment and new approaches need to be introduced. Therefore, the establishment of a practical mechanism to support dekhan farms is needed to help them become more productive and sustainable.

169. Farmer Field Schools (or FFS) were established as a mechanism to provide farmers with practical advice and support in financially affordable ways. Such an approach is based on the experience of the Food and Agriculture Organization (FAO) and has been used in over 100 countries in Asia, Africa and South America. Since 1990, the FFS experience has been widely applied in Russia by the Ministry of Agriculture as a method of providing support to newly established private farms. They have organized trainings and consultations for private farmers and started acting as centres for dissemination of knowledge and experience in 70 regions, which after 5years of practice have been reorganized into the Federal network to share knowledge and experience at the Federal Centre for Agricultural Advice. The FFS approach has been piloted with success in Central Asian countries also, notably Tajikistan and in some areas of Uzbekistan, but has not been adopted as yet as a state policy or supported approach as it was in Russia.

170. Structure: A FFS consists of groups of farmers who are interested in collaborating on practical agricultural learning. They are supported by an agronomist FFS Consultant who helps, directs and guides based on topics of interest to the audience. Participation in groups occurs on a voluntary basis, and every farmer has an equal opportunity to participate. At the community level, establishment and development of farmer groups helps increase the number of farmers (especially small and medium) who are involved in the process of resource management and decision making at the local level.

171. Subjects covered: FFSs cover the study of simple problems that farmers face in practice, as well as new methods and technologies to help solve common problems. The contents may include new methods of pest control, cultivation of plants, introduction of new plants and seed processing, agro-forestry, erosion control, and the like. Other subjects related to agriculture may also be covered for example, legal issues, financial management, product processing, and so on.

172. Project Support: The project will support the establishment of FFS groups within appropriate communities in the project target districts but principally in Zaamin (which has significant areas of dekhan / household cultivation and farmers, unlike Karakul which is mainly desert pasture). The project will work closely with local governance structures (self-governing councils and Mahalla structures) to identify farmers and household heads interested in participating, and a local individual with appropriate agronomy background to lead the group. The project will then support operational establishment of the group through: relevant skills development of the FFS Consultant (agronomist); limited infrastructure/equipment support for FFS meeting location; support with curriculum development (a consultative process with member farmers based on their priorities); and some initial operational costs (FFS consultant part-time salary). For long term sustainability of the FFS groups, the project will consider options such as: possibility of FFS Consultant being paid by farmer group for his services, local government (self-governing Council, Mahalla, local MGWM, etc.) covering support costs, etc.

173. Provisionally, it is estimated that 4 such FFS Groups will be initially established and costs will be approximately USD 15,000 per FFS (total investment of USD 60,000). However, this level of investment may be greatly reduced depending on the level of local support and up-take by local farmers.

ANNEX 4. VISION FOR STRENGTHENING OF THE VOCATIONAL AND ACADEMIC TRAINING CURRICULUM

174. Under Output 2.2.3 of the project, long-term vocational and academic training curricula are to be strengthened at professional colleges, lyceums and universities. This annex outlines the vision for this long-term capacity building effort.

Higher education and vocational training system in Uzbekistan

175. Currently there are 65 higher education institutions (HEIs) in Uzbekistan[12], of the following types:

176. - University (*Universitet*): provides educational programmes of higher education (both Bachelor and Master levels) and post-university education in a wide range of fields of knowledge and areas of professional training. The universities conduct fundamental and applied scientific research. There are in total 22 universities, including 19 Uzbek universities and 3 branches of overseas universities.

177. - Academy (*Akademiya*): provides educational programmes of two levels of higher education and postgraduate education in specific fields of knowledge and areas of training. There are 3 academies located in Tashkent: Tashkent State Medical Academy, the State Tax Academy and the Russian Plekhanov Academy of Economics.

178. - Institute (*Institut*): provides educational programmes of Bachelor and Master levels and, as a rule, at postgraduate level, in specific fields of professional training within one area of knowledge. There are in total 41 institutes throughout the country.

179. There are 1,525 vocational training colleges (including 143 academic lyceums) throughout Uzbekistan. These have been constructed during the last decade to cover most settlements nationwide. Out of these, a total of 195 are agricultural colleges that prepare graduates in specialities such as agronomy, veterinary services and zoo-technician-beekeeper, land surveying and geodesy, forestry technicians, technicians for irrigated land amelioration, mechanics for agricultural machinery services, etc. However, other colleges also include some of these specializations depending on the demand for such trained graduates in certain regions or districts. At the same time, colleges also prepare graduates with broader specialisation for natural resource management such as specialists for farming entities, managerial issues, accounting etc.

180. Construction of the new colleges, and equipping them with material and human resources has been largely due to government investments over the last decades. For example, average construction costs of an agricultural college that can provide training for 500 students were in the range of 2,400 USD per student study place (in prices of year 2006). In addition, the government is providing continuous investments to cover maintenance costs and upgrading college study inventory that is planned on an annual basis. For the year 2013, over 228 colleges are planned to receive funds for renovation and over 700 colleges to be equipped with modern study inventory, computers and laboratories. (http://uza.uz/ru/politics/21118/).

181. There are 88 and 79 colleges in Bukhara and Jizzak regions respectively, where the project pilot districts are located. Each of the pilot districts, Karakul and Zaamin, have 9 colleges with Zaamin district having more agriculture oriented colleges (such as Agro-industrial college, Agriculture and services college, Agriculture college) compared to only one Agriculture college in Karakul district. The total capacity of colleges in these pilot districts is over 11,200 and annual quota for enrolment is in the range of 5,900 students.

[12] Higher Education in Uzbekistan, EU TEMPUS
http://eacea.ec.europa.eu/tempus/participating_countries/reviews/uzbekistan_review_of_higher_education.pdf

182. The PPG team has noted that within all colleges, agronomy and veterinary services courses are widespread and well attended, whereas forestry technicians, apiculture specializations are very few. There is need to upgrade and update study materials to reflect new realities and challenges presented by changing environment, economic and social changes, climate change, desertification etc.

Host Institutions for Project Activities

183. Potential host institutions for the joint development of improved and more relevant curricula fall into two broad categories:

184. a) Higher education institutions with courses relevant to land use policy, planning and management: Under this category, the project will work with institutions such as the Tashkent State Agrarian University, Samarkand State University, Samarkand Agricultural Institute, and Tashkent State Institute for Irrigation (Bukhara affiliate).

185. b) District level vocational training colleges: Under this category, the project will work in Zamin district with institutions such as the Agro-industrial College, College of Informatics and Servicing, Agricultural College, and College of Agriculture and Service; and in Karakul district with institutions such as Karakul Industrial College, Karakul Economics College, College of Consumer Service, and College of Agriculture Production.

Themes to be strengthened in curricula

186. The subjects to be introduced or enhanced within host institution curricula differ significantly between national/ provincial higher educational institutions and district vocational colleges. There are also variations in focus within these two categories.

187. For **Higher Education Institutions**, project inputs will be targeted at supporting curriculum development in the following categories:

188. (1) Institutions and courses principally designed to produce graduates for the senior government civil service, and future government decision makers at national and provincial levels: Efforts in this context will aim to ensure such graduates have materials that provide a broad understanding of the principles of sustainable land use management and importance of integrated approaches integrated into their courses. This is justified given the very high level of importance that land use plays in the economy and social welfare of the country. In the long term, this is hoped to enrich the baseline knowledge that exists within decision makers with a knock on effect in terms of sound policy, legislation and planning. To this end, the project will help identify how best such principles and concepts can be inserted effectively into existing courses and topics, assist in the development of appropriate materials / modules, and provide training of trainers (i.e. enhancement of existing lecturers capacity) to effectively deliver the additional material.

189. *(2) Institutions and courses specifically aimed at producing graduates for agricultural / other land use sectors:* Efforts in this context will be more focused on building on existing course material by developing and enhancing the curricula in order to instill a deeper understanding of key land use principles and their application in practice. In this context, the project will utilize the practical experiences gained from the district level activities to provide realistically grounded material both in terms of good practices and effective ways for achieving sound land use planning and integration. In the long term, it is expected that these efforts will help to develop a cadre of personnel within the agricultural / forestry sector with both a sound theoretical understanding of effective land management principles and a grasp of how they can be applied practically.

Provisional list of themes to be integrated/ enhanced in higher education curricula

Thematic areas / topics	General civil service development institutions	Agricultural / forestry institutions
Environmental management and sustainable development.	Academy of State Management under the President of the Republic of Uzbekistan	Tashkent State Agrarian University, Samarkand Agricultural Institute
Maintenance of the desert livestock in the conditions of changing climate and ecology.	Professional Training Centers of the Ministry of Agriculture and Water Resources	Tashkent State Agrarian University, Samarkand Agricultural Institute
Economic instruments in the field of integrated land management in arid and forest landscapes of Uzbekistan.	Academy of State Management under the President of the Republic of Uzbekistan	Tashkent State Agrarian University, Samarkand Agricultural Institute
Combating desertification: agricultural development, afforestation and rational management of water and land resources.	Professional Training Centers of the Ministry of Agriculture and Water Resources	Tashkent State Institute for Irrigation: Bukhara affiliate
Development of non-agricultural activities in the areas suffered from land degradation and desertification.	Scientific Production Center under the Ministry of Agriculture and Water Resources	Tashkent State Agrarian University, Samarkand State University
The importance of rangelands at global and national level	Republican Research Institute of the Karakul Sheep Breeding and Desert Ecology	Tashkent State Agrarian University, Samarkand State University
Biodiversity conservation of rangeland ecosystems.	Republican Research Institute of the Karakul Sheep Breeding and Desert Ecology	Tashkent State Agrarian University, Samarkand State University
Gender approach in the use of natural resources of desert and forest ecosystems.	Academy of State Management under the President of the Republic of Uzbekistan	Tashkent State Agrarian University, Samarkand State University

190. For **District Vocational Colleges**, support to curricula development will be much more targeted towards practical application. As a first step, the project will undertake a thorough assessment of the existing courses and training provided by them and identify major gaps in their content in terms of the needs of the districts, or way they are communicated.

191. Based on this, the project will support the staff of the colleges to build upon existing courses and training being undertaken by the colleges and further develop them to improve their impact on the specific sustainable land use and socio-economic needs of the districts. In this context, the project will tap directly into field activities being undertaken in the target districts to provide a basis for enhancing the practical knowledge and skills of district level land users and members of rural communities to apply effective land management approaches. Links between Vocational Colleges and extension mechanisms such as the Zoo-technical centres and Farmer Field Schools will be built on.

Provisional list of themes to be integrated/ enhanced in vocational institutions

Thematic areas / topics	Vocational Colleges Zaamin	Vocational Colleges Karakul
Agricultural entrepreneur	Agricultural college	Economics college
Use of sun-heated energy-efficient greenhouses.	Agro-industrial college	Industrial college
Principles of rangeland improvement practices.	Agricultural college	Economics college
Technologies and methods of creation of anti-erosion forests purpose and in order to reinforce of moving sand, enrichment of rangelands, to obtain business, fuel wood, fruits and nuts.	College of Informatics and Servicing	College of Consumer Service
The use of alternative sources of energy for heating and other new technologies and approaches that will contribute to reducing the consumption of wood for fuel.	College of Agriculture and Service	College of Consumer Service

Thematic areas / topics	Vocational Colleges Zaamin	Vocational Colleges Karakul
Methods and ways of forest restoration: to create conditions for natural regeneration of forests, to promote natural reforestation.	Agricultural college	College of Agriculture Production
The cultivation of food and feed crops using underground (artesian) waters on pasture lands.	Agricultural college	College of Agriculture Production

192. Beyond the technical support provided to the host institutions to develop course materials and build staff capacity to deliver it, the project will provide few other inputs. As described in the project document, the government has already made, and continues to make, major investments in both universities and vocational colleges, particularly in terms of initial infrastructure and equipment, and in ongoing recurrent costs.

193. The role of the project will be to help maximize the benefits this investment has in terms of sustainable land management and related socio-economic development rather than adding additional such investments. The only exception will be some limited training equipment for vocational colleges in thematic areas not previously covered by government investment. Thus the project is in effect aiming to adjust an existing working system in order to improve its impact on land use policy, planning and management and in this way ensure the sustainability of its intervention.

ANNEX 5: GENERALIZED TABLE OF CONTENTS FOR THE EXPECTED GUIDELINES ON GOOD PRACTICES

Under Output 2.3.1 of the project, guidelines on good practices for sustainable natural resource management are to be developed. This annex outlines the draft table of contents for the guidelines.

1. Executive summary

2. Description of land use issue / problem addressed by the best practice

3. Specification of land use / ecological situation best practice can be effectively applied and check-list to identify its applicability for the reader.

4. Detailed description of the components of the best practice

5. Description of how best practice can be combined or integrated with other traditional / existing practices or other new best practices.

6. Description of the potential benefits and drawbacks of applying the best practice (in isolation and in combination with others)

7. Step by step description of how to practically apply the best practice, including troubleshooting (i.e. how to adjusting / adapting application to meet specific circumstances).

Annexes:

- Details of equipment and materials required
- Estimated costing for application of best practice
- Estimated cost / benefit of applying best practice (in mid and long term)
- Case studies of best practice being applied in Uzbekistan (based on project and others experience)
- Implementation calendar or schedule (identifying when implementation steps need to be taken)
- List of contacts, references, sources of additional information and guidance

ANNEX 6: OUTLINE OF THE ILUP DOCUMENT CONTENTS

Executive Summary

Introduction:

- Concept and Purpose of Integrated District Land Use Plan
- Key principles
- National / Oblast land use planning context (clarify national priorities relevant at district level, and the scope they provide for flexible district level planning)

District Land Use Planning team: Members and operational arrangements

Description of District Land Use Planning Process (including mechanisms for stakeholder consultation and input)

Land Use Inventory and Assessment of Options and Potential

- Land Inventory and Mapping
- Land use options and potential analysis: look not just at existing land uses but all options (including economic, social and environmental analysis of options)
- Identify important land use interactions and linkages and need for integrated planning
- Stakeholder Consultation (land users, key district land use institutions, sub-district and village representatives) on Land Use Options and Potential – feedback on analysis and prioritization.

Land use classification and mapping (based on inventory and option/potential analysis and consultation):

- Zone district on basis of identified potential land uses
- Identify land use risk areas degraded or prone to degradation / natural disaster where certain land use must be not be allowed or must be closely regulated.

Long term Land Use Goal, Objectives and Actions

- Long term District land use Vision and Objectives
- Key constraints, problems and barriers for achieving land use vision and objectives in each land use sector/subsector and relevant new land use opportunities
- Concrete short to mid-term actions required to address constraints, problems and barriers and take advantage new opportunities: including stakeholder consultation
- Actions to ensure important inter sector or sub sector land use interactions are properly addressed (Ensuring that actions maximize benefits of interactions and minimize or mitigate conflicts).

Action Plan Schedule, Responsibility and Financing Matrix

Monitoring, Evaluation and Land Use Plan Revision and Updating Schedule

Annex / Supporting Documents

- District land inventory and maps
- Records of Stakeholder Consultations

ANNEX 7: STAKEHOLDER INVOLVEMENT PLAN

1. Stakeholder identification

During the project preparation stage, a stakeholder analysis was undertaken in order to identify key stakeholders, assess their interests in the project and define their roles and responsibilities in project implementation (see table titled 'Stakeholder Analysis' in main document).The table indicates that the State Committee on Land Resources, Geodesy, Cartography and State Cadastre will be the main institutions responsible for different aspects of project implementation. They will work in close cooperation with other affected public institutions.

2. Information dissemination, consultation, and similar activities that took place during the PPG

Throughout the project's development, very close contact was maintained with stakeholders at the national, regional and district levels. All affected national and local government institutions were directly involved in project development, as were relevant other development agencies (GIZ notably) and project co-financers. Numerous consultations occurred with all of the above stakeholders to discuss different aspects of project design. These consultations included: bilateral and multilateral discussions; site visits to target districts; provincial and national workshops; and electronic communications. The preliminary project activities were presented to a range of stakeholders for review and discussions and, based on comments received, a final draft of the full project document was presented to a consolidated stakeholder workshop for approval and endorsement.

3. Approach to stakeholder participation

The project's approach to stakeholder involvement and participation is premised on the principles outlined in the table below.

Principle	**Stakeholder participation will:**
Value Adding	be an essential means of adding value to the project
Inclusivity	include all relevant stakeholders
Accessibility and Access	be accessible and promote access to the process
Transparency	be based on transparency and fair access to information; main provisions of the project's plans and results will be published in local mass-media
Fairness	ensure that all stakeholders are treated in a fair and unbiased way
Accountability	be based on a commitment to accountability by all stakeholders
Constructive	Seek to manage conflict and promote the public interest
Redressing	Seek to redress inequity and injustice
Capacitating	Seek to develop the capacity of all stakeholders
Needs Based	be based on the needs of all stakeholders
Flexible	be flexibly designed and implemented
Rational and Coordinated	be rationally planned and coordinated, and not be ad hoc
Excellence	be subject to on-going reflection and improvement

4. Stakeholder involvement plan

The project's design incorporates several features to ensure on-going and effective stakeholder participation in the project's implementation. The mechanisms to facilitate involvement and active participation of different stakeholder in project implementation will comprise a number of different elements:

(i) Project inception workshop to enable stakeholder awareness of the start of project implementation

The project will be launched at a multi-stakeholder inception workshop. This workshop will provide an opportunity to provide all stakeholders with the most updated information on the project and the project work plan. It will also establish a basis for further consultation as the project's implementation commences.

(ii) Constitution of Project Executive Board to ensure representation of stakeholder interests in project

A Project Executive Board (PEB) will be constituted to ensure broad representation of all key interests throughout the project's implementation. The representation, and broad terms of reference, of the PEB are further described in the section titled "Management Arrangements" of the Project Document.

(iii) Establishment of Project Technical Coordination Group: As described in the project Management arrangements, the TCG will allow different stakeholders to coordinate and share experience on technical issues relevant to project implementation.

(iv) Establishment of a Project Management team to oversee stakeholder engagement processes during project

The Project Management team - comprising a Project Manager, a National Technical Coordinator, a Project Administrative Assistant - will take direct operational and administrative responsibility for facilitating stakeholder involvement and ensuring increased local ownership of the project and its results. The Project Manager, National Technical Coordinator and Project Administrative Assistant will be located in Tashkent close to the project target national partners but have field offices in each of the two target districts to ensure close contact and coordination with field level stakeholders. A dedicated focal point in GKZ will be designated to ensure close cooperation at all times with national responsible authority.

(iv) Project communications to facilitate on-going awareness of project

The project will develop, implement and maintain a communications strategy to ensure that all stakeholders are informed on an on-going basis about: the project's objectives; the projects activities; overall project progress; and the opportunities for involvement in various aspects of the project's implementation.

(v) Direct involvement of local stakeholders in project implementation

Outcome 1 of this project is entirely devoted to directly supporting actual land users of all types in the districts to improve land use, increase resilience to climate variations and change, and secure long term sustainable livelihoods. All activities under this Outcome will directly involve local stakeholders, including shirkat and private livestock farms, rain-fed arable farmers, dekhan farmers and family plots, in the application and testing of land use best practices. UNDP projects in Uzbekistan have extensive experience with involving local communities, local land users and local authorities in project implementation. This project builds on the years of successful local governance work of UNDP. Concrete mechanisms by which local stakeholders are going to be involved in production of key outputs are as follows:

- Consultation of land users via workshops and one-on-one meetings in regard to localization of "best practices" to be applied in the districts.
- Open and community driven selection process for specific land users to participate in initial best practice replication.
- Joint planning workshops with selected land users to define effective implementation of best practices

- Workshops and use of PRA approaches to evaluate impact of best practices

Consultation and participation of local population in ILUMP development process via village consultative meetings, participation of representatives in plan objective and key output identification.

(vi) Establishing cooperative governance structures to formalize stakeholder involvement in project

The project will actively seek to test and in the longer run formalize new governance structures at a local or district level to oversee and manage resources for the collective benefit and interest. Such structures range from community pasture user groups, to joint forestry management arrangements to district level pasture use commissions. The project will build on previous experience from other projects to replicate such approaches at a larger scale and then based on this experience work towards feeding such changes into national policy, legislative and institutional mechanisms for land use management nationally.

(vii) Capacity building

All project activities have aspects of capacity building, in particular building practical know-how capacity to undertake more sustainable land use practices and integrate land use planning at district level. However, the project also has a specific output under Outcome 2 which aims to build both the short term required capacity to ensure project activities can be effectively implemented, and longer term activities designed to ensure the academic and vocational training programme of the Uzbekistan government has the capacity to build the national cadre of specialists and land users capable of implementing and further developing national land use policy, legislation and institutions and applying sound land use principles in practice.

5. Coordination with other related initiatives

The project will work closely with GKZ and MAWM and other development agencies in order to ensure complementarity of its activities in support of the agricultural, governance, institutional and legislative reform processes currently underway in Uzbekistan. The project is part and parcel of the overall donor assistance programme of support to the Uzbekistan land use, agricultural sector and rural development. This project will work in close partnership with a number of donor agencies, NGOs and government (provincial and national) institutions already actively involved to support agricultural reforms and improvement as a whole and in the project target landscapes specifically, GIZ, WB, ADB, and ICARDA.

ANNEX 8: RISK ANALYSIS

IDENTIFIED RISKS AND CATEGORY	IMPACT	LIKELIHOOD	RISK ASSESSMENT	MITIGATION MEASURES
ENVIRONMENTAL Climate vulnerability risks, such as extreme seasonal variations/ drought will negatively impact land conditions in project sites	High	Moderately likely	High	One of the core focuses of the project is the introduction of a) more resilient land use practices, b) the increased land use management capacity of land users and thus improved ability to apply adaptive management, and c) better integration of land use and thus greater overall system resilience. However, it is highly likely that some seasonal variations will impact project short term progress with implementing specific practices in the field. For this reason the duration of the project has been made unusually long in order to provide sufficient seasons during which to apply best practices and to be able to demonstrate an overall benefit. These design features will mitigate the impacts of wide seasonal variations but nonetheless extreme events will negatively impact the project and so this remains a significant threat.
POLITICAL Weak political or institutional will to make necessary changes and support reform will prevent the application of good land use practices on the ground. More specifically, difficulty in ensuring that the enabling legal and institutional framework is modified adequately or in a timely manner because specific contents of legal revisions cannot be agreed by various stakeholders or that process of enacting legal revisions is impeded.	High	Moderately likely	Moderate	Inevitably, the fundamental changes in the roles of the state under a reformed pasture management, forestry and rain-fed areas utilization system will be difficult unless there is clear political understanding of the need to make such changes, and full commitment to making them. To some extent this understanding and commitment already has been built. However, in order to further mitigate this risk the project will undertake dedicated and carefully targeted awareness and capacity building at the outset of the project.
POLITICAL Engaging local stakeholders contains some risk in the context of existing mainly centralized approaches.	Moderate	Likely	Moderate	In seeking a collaborative management system, the project is building on some existing local authorities' experience (particularly in Djizak) and their existing responsibilities, backed up by existing policies that do open the door for more local engagement and participation. The project will seek to actively cooperate with local municipalities that are composed of community representatives and are responsible for some aspects of land management such as leasing pasture lands, collection of property and land related taxes and ensuring effective management of revenues. The Forestry Agency (within Ministry of Agriculture) has committed within its National Forestry Programme to engage local communities and stakeholders in forest management and this is a positive development indicative of the government's opening up to new approaches involving community-based management.
STRATEGIC Building of sufficient capacity and practical know-how within essential state institutions and local authorities will take too long to allow project sustainability	Low	Moderately likely	Moderate	One of the main lessons learned by UNDP and other development partners in Central Asia in the last 15 years is that to change and reform existing institutions and mind-sets is an extremely time consuming process if it is to be achieved effectively. This has been a clear lesson from most of UNDP and other development actors' initiatives in the area and a key reason for many

IDENTIFIED RISKS AND CATEGORY	IMPACT	LIKELIHOOD	RISK ASSESSMENT	MITIGATION MEASURES
				projects to not achieve the full results expected. Thus it is of paramount importance that in the project a realistic timeframe for the systematic implementation of the various project activities is planned in order to mitigate this risk. This is an additional reason why the timeframe of 5 years has been considered necessary.
STRATEGIC Disagreements and misunderstanding between user groups and the main beneficiaries of current resource use system. Despite linkages being known and a coordination mechanism in place, different land use institutions will continue to pursue their narrow interests. Vested interests of current institutions will delay or prevent substantial adjustment of mandates or structure. Thus, consensus on long term strategic objectives for pasture, forestry and rain-fed arable agriculture cannot be reached within the project time frame.	Moderate	Moderately likely	Moderate	The establishment of new pasture, forestry and rain-fed area user rights will inevitably cause some initial misunderstandings and potential disagreements. National and local state institutions and rural population have deeply ingrained understanding of such issues based on 60 years of soviet practice. Likewise communities themselves lack experience of collaboration both within and with each other. The project design incorporates at each level steps and changes that in total should mitigate this risk. Clear policy direction and institutional/ legal reforms will provide the appropriate environment, capacity strengthening will change existing mind-sets, and on ground practical testing of approaches and good practice will put in place the necessary mechanisms for dispute resolution.
ENVIRONMENTAL New threats could emerge (such as insect infestations, disease caused by climate change, reduced water availability, etc.), or existing threats could increase beyond the projected levels (such as rate of population increase).	Moderate	Not likely	Low	The project is designed to respond flexibly to threats and seeks to put in place processes and tools that will enable stakeholders to adapt SLM practices and practical management to the on ground situation. In short, it will build the adaptability of all levels (from land users, local authorities, up to national institutions) to respond to changing circumstances and threats.
POLITICAL Government will not continue to support the recurrent cost of district vocational training colleges	Moderate	Not likely	Low	Given the levels of commitment and investment shown to date by the government this is an unlikely risk but its impact would be moderate so it is included. The project will mitigate the risk by highlighting the value of such colleges for their long term support and role within the rural development of the country.
STRATEGIC Graduates, despite better knowledge of good land use principles and practices, will not be able to apply knowledge due to continued existence of inappropriate institutional context or employment opportunities are better in other sectors	Moderate	Not likely	Low	This is not considered a high risk but it may be that other sectors of the economy may offer graduates from agricultural faculties of universities better employment opportunities. The only mitigation the project can provide is to ensure that graduate courses are better tailored to the job market needs and put them in an advantageous position to succeed in the agricultural sector.
STRATEGIC Key personnel from government are unable to actively participate in training sessions.	Moderate	Not likely	Low	Government participation in training events is not likely to be a hindrance. The project will ensure that scheduling of events is undertaken in a way that allows for maximum participation of key personnel

ANNEX 9: TERMS OF REFERENCE FOR KEY PROJECT PERSONNEL AND CONSULTANTS

Project Manager

Background

The Project Manager will be nationally recruited, based on an open competitive process. He/She will be responsible for the overall management of the project, including the mobilization of all project inputs, supervision over project staff, consultants and sub-contractors. The Project Manager will report to the National Project Director for all of the project's substantive and administrative issues. From the strategic point of view of the project, the Project Manager will report on a periodic basis to the Project Executive Board (PEB). Generally, he/she will be responsible for meeting government obligations under the project, under the national implementation modality (NIM). The incumbent will perform a liaison role with the Government, UNDP, implementing partners, NGOs and other stakeholders, and maintain close collaboration with any donor agencies providing co-financing.

Duties and Responsibilities

- Supervise and coordinate the production of project outputs, as per the project document;
- Mobilize all project inputs in accordance with procedures for nationally implemented projects;
- Supervise and coordinate the work of all project staff, consultants and sub-contractors;
- Coordinate the recruitment and selection of project personnel;
- Prepare and revise project work and financial plans;
- Liaise with UNDP, relevant government agencies, and all project partners, including donor organizations and NGOs for effective coordination of all project activities;
- Facilitate administrative backstopping to subcontractors and training activities supported by the Project;
- Oversee and ensure timely submission of the Inception Report, Combined Project Implementation Review/Annual Project Report (PIR/APR), Technical reports, quarterly financial reports, and other reports as may be required by UNDP, GEF, GKZ and other oversight agencies;
- Disseminate project reports and respond to queries from concerned stakeholders;
- Report progress of project to the PEB, and ensure the fulfilment of PEB directives.
- Oversee the exchange and sharing of experiences and lessons learned with relevant community based integrated conservation and development projects nationally and internationally;
- Ensure the timely and effective implementation of all components of the project;
- Assist relevant government agencies and project partners with development of essential skills through training workshops and on the job training thereby upgrading their institutional capabilities;
- Coordinate and assists scientific institutions with the initiation and implementation of any field studies and monitoring components of the project
- Carry regular, announced and unannounced inspections of all sites and the activities of any project site management units.

Qualifications

- A post-graduate university degree in Business and/or Environmental Management;
- At least 10 years of experience in business and/or natural resource planning and management (preferably in the context of protected area financial planning and management);
- At least 5 years of project management experience;
- Working experience with the project national stakeholder institutions and agencies is desired;
- Ability to effectively coordinate a large, multi-stakeholder project;

- Ability to administer budgets, train and work effectively with counterpart staff at all levels and with all groups involved in the project;
- Strong drafting, presentation and reporting skills;
- Strong computer skills;
- Excellent written communication skills; and
- A good working knowledge of Uzbek Russian and English and is a requirement.

Project Administrative and Finance Assistant

Background

The Project Administrative Assistant will be locally recruited based on an open competitive process. He/She will be responsible, on a part-time basis, for the overall administration of the project. The Project Assistant will report to the Project Manager. Generally, the Project Administrative Assistant will be responsible for supporting the Project Manager in meeting government obligations under the project, under the national implementation modality (NIM).

Duties and Responsibilities

- Collect, register and maintain all information on project activities;
- Contribute to the preparation and implementation of progress reports;
- Monitor project activities, budgets and financial expenditures;
- Advise all project counterparts on applicable administrative procedures and ensures their proper implementation;
- Maintain project correspondence and communication;
- Support the preparations of project work-plans and operational and financial planning processes;
- Assist in procurement and recruitment processes;
- Assist in the preparation of payments requests for operational expenses, salaries, insurance, etc. against project budgets and work plans;
- Follow-up on timely disbursements by UNDP CO;
- Receive, screen and distribute correspondence and attach necessary background information;
- Prepare routine correspondence and memoranda for Project Managers signature;
- Assist in logistical organization of meetings, training and workshops;
- Prepare agendas and arrange field visits, appointments and meetings both internal and external related to the project activities and write minutes from the meetings;
- Maintain project filing system;
- Maintain records over project equipment inventory; and
- Perform other duties as required.

Qualifications

- A post-school qualification (diploma, or equivalent);
- At least 5 years of administrative and/or financial management experience;
- Demonstrable ability to administer project budgets, and track financial expenditure;
- Demonstrable ability to maintain effective communications with different stakeholders, and arrange stakeholder meetings and/or workshops;
- Excellent computer skills, in particular mastery of all applications of the MS Office package;
- Excellent written communication skills; and
- A good working knowledge of Uzbek, Russian and English is a requirement.

Chief Technical Adviser (CTA)

Background:

The Chief Technical Adviser will be internationally recruited, based on an open competitive process. The task of the CTA will be to provide overall project advisory services and technical assistance to the National Project Manager (PM), the National Project Experts (NPE) and the other project consultants. In essence, the responsibility of the CTA is to ensure that the overall technical direction of the project is maintained and flexibly adapted to the meet the practical challenges faced during implementation.

At the critical initial stages of project implementation the inputs of the CTA will be on a semi-permanent basis, but will be gradually reduced once technical directions are firmly established and project implementation capacity is place. Nonetheless the role of the CTA will remain critical throughout the project as he/she will continue to have inputs on key technical decisions at strategic moments in the project implementation through field missions and remote communication (email).

Duties and Responsibilities

The CTA will work closely with the PM, the National Project Technical Coordinator and local consultants and international consultants. Specifically his/her tasks include but are not limited to:

- Work closely with the PM in coordinating and facilitating inputs of government agencies, partner organizations, scientific and research institutes, subcontractors, and national and international experts in a timely and effective manner;
- Provide guidance and assistance to the PM and the NTC to ensure that the project activities conform to the approved project document;
- Assist the PM, during the initial 4 months of the project, in the implementation of the "inception phase" and the preparation of an "inception report" which will more concretely elaborate the project Logical Framework Matrix and planned project activities, the 1st year Annual Work plan and Budget, TOR's for key project staff, and an M&E plan.
- Assist the PM and the NTC in development of relevant TOR's and recruitment / mobilization of qualified national and international external experts and organizations as needed to provide specific consultancy services;
- Provide specific technical guidance on the implementation and documentation of project activities directly within his/her technical area and provide oversight and guidance to additional international consultants recruited to support specific areas of project implementation (pasture, forestry, ILUMP, etc).
- Provide "on job" technical guidance and mentoring to the PM, NTC and other project national consultants in order to build their capacity to effectively implement the technical aspects of the project.
- Support the PM in reporting to the PEB on the progress of project implementation and achievement of project results in accordance with the project's logical framework matrix;
- In close cooperation with the PM, the NTC, the UNDP CO E&E Programme Manager, and in consultation with the project partner organizations and stakeholders, support the preparation of Annual Project Work Plans / PIRs to be agreed upon by the Project Executive Board (PEB);
- Review reports of national and international consultants, project budget revisions, and administrative arrangements as required by UNDP/GEF procedures and by the needs of the project implementation;
- Assist in the design and effective development project "best practice" and "lesson learn" materials
- In cooperation with the PM and the NPE develop a suitable project exit strategy during the final year of the project;

Qualification/Experience:

- Postgraduate or other advanced university degree in sustainable land management, natural resource management, agriculture, environmental management or related fields.
- At least 10 years of demonstrated working experience in areas relevant for Sustainable Land Use Management within arid environments.
- Prior knowledge and experience of the political, social and environmental factors and issues related to arid natural resource use and agricultural systems in Central Asia, preferably Uzbekistan.
- Prior experience in the use of local level, participatory approaches to natural resource management.
- Practical experience with the addressing forestry and pasture land use in arid environments essential and similar experience with rain-fed arable agriculture an advantage.
- At least 5 years practical field experience in a similar professional role (i.e. CTA, manager or equivalent, of a natural resource management project implementing practical activities in the field).
- Familiarity with the goals and procedures of international organizations, in particular those of the GEF and UNDP;
- Good interpersonal, facilitation and training skills; and
- Excellent skills in English language, knowledge of Russian and/or Uzbek an advantage.

National Project Technical Coordinator

Background

The Project National Technical Coordinator will be locally recruited based on an open competitive process. He/She will be responsible for the overall technical implementation of the project. The National Technical Coordinator report to the Project Manager but be technically supervised by the part-time Chief Technical Adviser. Generally, the Project Administrative Assistant will be responsible for supporting the Project Manager in meeting government obligations under the project, under the national implementation modality (NIM).

The National Technical Coordinator of the Project will be responsible for overseeing on a day to day basis the sound and timely implementation of all technical tasks of the project. Specific responsibilities will include:

Work planning and Reporting
The NTC will provide support to the PM in the preparation of all required work planning and reporting in terms of their technical content including AWP, PIR, Quarterly reports, Terminal Project report, etc.

Recruitment and supervision of technical consultants

- TOR drafting: the NTC will have primary responsibility for defining the technical responsibilities and deliverables expected from national and international consultants and service providers recruited by the project and to elaborate them in comprehensive Terms of Reference
- Selection process: The NTC will play a key role in the selection of individuals or service providers to fulfil TOR's
- Supervision: the NTC will have responsibility for ensuring technical consultants prepare adequate work plans, will monitor progress, and provide technical guidance as required
- The NTC will ensure effective management of work towards defined project results by consultants recruited by the project through periodic technical staff management meetings

Technical Reports Oversight and finalization:
The NTC will be responsible for reviewing, following up and finalization of all technical reports, best practices, lessons learned, publications, etc. prepared by the project.

Technical Coordination Group and Liaison with Project Technical Partners

- The NTC will chair the Project Technical Coordination Group and will ensure that it effectively achieves its objectives (i.e. to achieve technical coordination and information exchange in the field between various project partners to ensure complementarity and collaboration).

Liaison and Support to Chief Technical Adviser (CTA)

- The NTC will liaise and consult closely with the part-time CTA in order to ensure that the technical direction of the project implementation remains on course.
- The NTC will directly support and work closely with the CTA while in-country and in particular during the project Inception phase in order to facilitate effectiveness of results and reach clear understanding of technical tasks to be achieved during the project duration.

Monitoring and evaluation

- The NTC will take direct responsibility for ensuring the practical tasks required to effectively implement the M&E plan are performed and that an appropriate database is established to enter, process and generate materials required to measure project progress towards indicators.
- The NTC will play a central role in supporting the process of undertaking the mid and terminal Independent Evaluations

Qualifications

- A post-graduate university degree or higher in a relevant academic area (land use, agriculture or Environmental Management, etc.);
- At least 10 years of experience in natural resource planning and management (preferably in the context of land use in non-irrigated landscapes);
- Preferably experience working within the context of international donor projects, ideally with UNDP;
- Working experience with the project national stakeholder institutions and agencies is desired;
- Ability to effectively coordinate and interact effectively with a wide range on national, provincial and local actors;
- Ability to effectively plan work and apply adaptive problem solving skills in order to achieve desired results
- Ability to work effectively with counterpart staff at all levels and with all groups involved in the project;
- Strong drafting, presentation and reporting skills;
- Strong computer skills;
- Excellent written communication skills; and
- A good working knowledge of Uzbek, Russian and English is a requirement.

Project District Field Officers (one in each of the two target districts)

Background

The Project District Field Officer will be locally recruited based on an open competitive process. He/She will be responsible for the representing the interests of the project in the project target district. The Project Field Officer will report to the Project Manager. Generally, the Project Field Officer will be responsible for supporting the Project Manager, NTC and field staff in undertaking practical activities within the target district and for providing site level representation for the project.

Duties and Responsibilities

The functions of the project Field officer will be to provide:

Liaison and coordination support with district authorities and other counterparts;

- To ensure district level counterparts, particularly the district Khokimiyat, are kept up to date on project activities, specifically those in the target district but also the overall implementation.
- To liaise and coordinate between project technical staff and local counterparts (district land use authorities, land users, local contractors)
- To ensure that information or administrative questions involving stakeholders at target district level are dealt with in a timely manner.
- To support the Project AFA regarding any administrative issues relating to target districts including recruitment, logistics, oversight of contractor services, etc.
- Contribute to the preparation and implementation of progress reports;

Logistical support for project technical team when in the field;

- Provide logistical and organizational support to facilitate the implementation of practical activities by project technical staff in the field
- Provide logistical support to district level counterparts in regard to attending trainings, workshops or other project supported events both in the district and elsewhere
- To directly supervise the district project driver and ensure that UNDP rules and regulations are observed in terms of use and security of project vehicle
- A focal point for district stakeholders to contact the project and access relevant literature and advisory materials
- Support the establishment and day to day management of an information center located within the project office spaces or other location provided by district authorities / counterparts
- Provide direct support and advisory services to project district stakeholders in terms of accessing required information held by the information center or by the project elsewhere.
- Collect, register and maintain all information on project activities at district level
- Perform other duties as required

Qualifications

- Completion of secondary school and preferably a post school qualification in relevant subject (agriculture, resource use, etc.);
- Excellent district level knowledge and networks
- At least 10 years of relevant work experience;
- Demonstrable ability to maintain effective communications with different stakeholders, and arrange stakeholder meetings and/or workshops;
- Excellent computer skills, in particular mastery of all applications of the MS Office package;
- Excellent written communication skills; and
- A good working knowledge of Uzbek, Russian is a requirement and English preferred.

Consultants to be hired using GEF Resources

Position Titles	***Tasks to be performed***
Local	
Pasture Management Specialist	Support replication and documentation of relevant pasture / livestock management best practices and ILUMP process at district level, contribute to national policy/strategic planning, legislation and institutional adjustment
Forestry Expert	Support replication and documentation of relevant forestry best practices and ILUMP process at district level, contribute to national policy/strategic planning, legislation and institutional adjustment
Rain Fed Arable /	Support replication and documentation of relevant conservation agriculture best practices and

Position Titles	*Tasks to be performed*
Conservation Agriculture Expert	ILUMP process at district level, contribute to national policy/strategic planning, legislation and institutional adjustment
Land Use Inventory and Cadastre Expert	Support process of developing a pragmatic and applicable inventory of land and natural resources in the project target districts, development of a GIs data base and documentation of lessons learned.
GIS Expert	Support the development of a suitable GIS to manage data from land use inventory activity and provide relevant services in the process of implementing land use best practices and developing ILUMPs
Policy and Strategic Planning Expert	Provide support with development of national land use related policy/strategic planning, ensuring high level consultation with key national stakeholders (State Committee's, Ministries, institutes) and improved coordination of national land use planning
Legal Expert	Support practical implementation of land use best practices in the target districts in regard to specific legal issues related to their implementation, help identify key legal issues facing rational land management at district/farm level, assist in applying this experience in context of national legal adjustments.
Appropriate Technology Expert	Support the identification and replication of relevant appropriate technologies to support improved and more sustainable resource use at district level and development of local, district or oblast commercial capacity to produce or provide relevant services. Documentation of lessons learned/ recommendations for national replication.
National/regional Capacity Development Expert	Support the development and implementation of a national programme to build long term land use planning and management capacity within the key relevant national education institutions. Provide support with development of short term capacity building and awareness programme for project key counterparts at national level.
District Capacity Development Expert	Support the development and implementation of a programme to build long term capacity of district/sub-district vocational colleges to deliver directly applicable and pragmatic land use related training of local population.. Provide support with development of short term capacity building and awareness programme for project key counterparts at district level.
Soil Survey Expert	Support to the land inventory process, inputs to best practice implementation
Geo Botanic Expert	Support to the land inventory process, inputs to best practices implementation
Watering points Expert (ground water utilization)	Support to the assessment and development of planning, refurbishment and long term sustainable utilization of desert / steppe boreholes and wells
Socio-economic Expert	Support to ensuring the most appropriate and effective approaches are utilized in terms of socio-economic benefits when applying best practices, support to monitoring of project impact, and identifying lessons learned.
Monitoring and Evaluation / Knowledge management Expert	Support the effective monitoring and evaluation of the project impact according to the project M&E plan / LF Matrix and in the design, development and publication of "best practices"/"lessons learned " materials.
National Evaluator/s	Be part of mid and terminal evaluation team
International	
Chief Technical Adviser	The Chief Technical Adviser will be responsible for ensuring that the overall technical direction of the project is in line with the project objective and expected outcomes. He / she will provide periodic part-time strategic inputs to ensure this and will assist the PM and NTC to adjust and adapt project management in order to maximize its impact and efficiency. The inputs of the CTA will be most critical at the initial inception and project implementation stages, post mid-term evaluation and during the project terminal phases (in order to ensure full value is gained from documentation of lessons learned/best practices and to support development and implementation of an effective exit strategy).
Pasture/livestock management Consultant	Provide international experience and technical advice on pasture related policy/strategic planning, legislation and institutional reform as well as specific practical field guidance on implementation of pasture / livestock best practices
Forestry Consultant	Provide international experience and technical advice on forestry related policy/strategic planning, legislation and institutional reform as well as specific practical field guidance on implementation of forestry best practices
ILUMP Consultant	Provide direct support to the process of developing 2 ILUMP's for each of the target districts and advise and support on mechanisms for improving national level land use coordinated planning and development
International Evaluator/s	Lead mid and terminal evaluation team/s

Complete and thorough ToRs for these positions will be developed by the Project Manager with the support of the CTA and National Technical Coordinator, once recruited.

ANNEX 10: TRACKING TOOL FOR LAND DEGRADATION (LD-PMAT)

Attached separately.

ANNEX 11. UNDP ENVIRONMENTAL AND SOCIAL SCREENING CHECKLIST

Attached separately.

ANNEX 12. LETTERS OF CO-FINANCING

All letters are attached in a separate file.

SIGNATURE PAGE

Country: Uzbekistan

UNDAF Outcome (s)/Indicator (s): Principles of sustainable development integrated into country policies and programs

CPAP Outcome (s)/Indicator (s): Increased availability of institutional products and services for the conservation and sustainable and equitable use of natural resources

CPAP Output (s)/Indicator (s): Concrete interventions on sustainable natural resources use, including water, land, biodiversity resources, and on climate change (mitigation, adaptation and carbon financing) complemented with environment education/ training component; and Strengthened legal and institutional frameworks and enhanced government capacities to meet international commitments and obligations

Executing Entity/Implementing Partner: State Committee on Land Resources, Geodesy, Cartography and State Cadastre (Goskomzem - GKZ)

Programme Period:	2010-2015
Atlas Award ID:	00075602
Atlas Project ID:	00087414
PMIS #:	4600
PIMS #:	4649
Start date:	2013
End Date:	2018
Management Arrangements	NIM
PAC Meeting Date	30 October 2012

Total resources required	*12,193,600$*
Total allocated resources (grants)	10,753,600$
-	
- UNDP	700,000$
- GEF	2,313,600$
- Government	6,700,000$
- Forestry Enterprises	220,000$
- ICBA	500,000$
- Sheep Breeding Farms	320,000
In-kind Contributions	1,440,000$

***Agreed by (Government)**:*

NAME SIGNATURE Date/Month/Year

Agreed by (Executing Entity/Implementing Partner):

Saidqul Arabov SIGNATURE Date/Month/Year

Agreed by (UNDP):

Stefan Priesner SIGNATURE Date/Month/Year